

DPHHS HAN

Information Sheet



DATE

October 5, 2023

SUBJECT

First Human Infection with Variant Influenza A(H1N2)v Detected in Montana

BACKGROUND

Influenza “variant” viruses, also known as novel influenza A infections, occur when a human becomes infected with a type of influenza different from what circulates seasonally. Because influenza can infect a wide variety of mammals and avian species, occasionally influenza viruses that primarily circulate in other species cause infections in humans. This is observed most often following contact with ill livestock, particularly swine and poultry. Variant influenza infections in humans are most often identified in the summer following occupational and recreational exposure to livestock, but typically not through the consumption of meat or eggs.

In most cases, variant influenza viruses have not been observed to readily sustain human-to-human transmission. However, precautions when managing a potential human infection with variant influenza are still recommended, as they are novel viruses.

Since 2010, the Centers for Disease Control and Prevention (CDC) has identified almost 500 cases of novel influenza infections in the United States, most commonly A(H3N2)v. In September 2023, the CDC identified novel influenza A(H1N2)v in a Montana resident. This is the first case of novel influenza infection in Montana and the third identified variant strain in the U.S. in 2023 (Michigan detected A(H1N2)v and A(H3)v strains). Identification of the first case of variant influenza in Montana highlights the importance of influenza surveillance even outside of seasonal circulation.

INFORMATION

CDC testing confirmed an influenza A(H1N2)v infection in a Lewis and Clark County resident. The patient is < 18 years of age and presented to urgent care in early August with persistent cold-like symptoms, including cough, sore throat, congestion, fatigue, and mild shortness of breath. On-site polymerase chain reaction (PCR) multiplex testing resulted positive for influenza A infection. Follow-up testing at the Montana Public Health Laboratory (MTPHL) indicated the possibility of a variant strain, so the specimen was directed to the CDC where it was confirmed as influenza A(H1N2)v, a swine variant. The patient was not hospitalized and has since fully recovered.

Public health investigation revealed that the patient had multiple visits to an agricultural fair in the 3 days prior to developing symptoms. Swine were present at the agricultural fair, but the patient did not report any direct contact with swine. No ill swine were observed by or reported to the local agricultural extension agent. None of the patient’s household members or healthcare contacts developed any cold- or flu-like symptoms.

RECOMMENDATIONS

Recommendations for Clinicians

- Outside of the traditional influenza season, ask patients with suspected or confirmed influenza if they have any recent exposure to livestock, particularly swine or poultry.

- Clinicians who suspect influenza in persons with recent exposure to swine or poultry should:
 - Obtain a [nasopharyngeal swab or other acceptable specimen](#) from the patient.
 - Place the swab in viral transport media and arrange timely transport to the MTPHL.
 - Contact the state or [local health department](#) and alert them to the situation. If variant influenza infection is highly suspected, the cost of additional testing may be covered with approval from the state Communicable Disease Epidemiology Section.
- Recommend [antiviral treatment](#) for patients with suspected or confirmed variant influenza virus infection who are hospitalized, have severe or progressive illness, or are in a group considered at increased risk for complications from influenza. Antiviral treatment can also be considered for those not at increased risk based on clinical judgement and if treatment can be initiated within 48 hours of illness onset.

Recommendations for Local Health Departments and Laboratorians

- Enhance surveillance for respiratory illness during the agricultural fair season to facilitate timely detection and investigation of variant influenza virus cases.
- If a clinician reports a suspect influenza case who has had exposure to swine or poultry, notify the Department of Public Health and Human Services (DPHHS) Communicable Disease Epidemiology Section (406-444-0273).
- Respiratory specimens from persons suspected to have variant influenza A virus infection should be collected and sent for subtyping by real-time polymerase chain reaction (RT-PCR) testing at the MTPHL promptly after collection. While commercially available rapid influenza diagnostic tests (RIDTs) and molecular assays for influenza can reliably detect variant influenza A viruses, they cannot differentiate variant influenza A viruses from human influenza A viruses.
- Any on-site subtyping on RT-PCR that results Influenza A positive with subtype “undetected” should be sent directly to the MTPHL for additional testing following consult with the DPHHS Communicable Disease Epidemiology Section (406-444-0273).