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CDC HEALTH ADVISORY

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Variant Influenza Virus Infections: Recommendations for Identification, Treatment, and Prevention for Summer and Fall 2022

Summary

The Centers for Disease Control and Prevention (CDC) is issuing this Health Alert Network (HAN) Health Advisory to provide updates on recent variant¹ influenza virus infections and summarize CDC's recommendations for identification, treatment, and prevention of variant influenza virus infection for the summer and fall of 2022.

Background

Five cases of human infection with influenza viruses that usually spread only in pigs, also known as variant influenza virus infections, were reported to CDC in August 2022. These cases include three infections with influenza A(H3N2) variant (A(H3N2)v) virus and two infections with influenza A(H1N2)v virus. These cases were identified in West Virginia (3), Oregon (1), and Ohio (1). Four of the five cases reported exposure to pigs or attendance at an agricultural fair prior to illness, and one reported no contact with pigs or attendance at an agricultural fair prior to illness. Clinical characteristics of these cases have been similar to those of seasonal influenza infections and have included fever, cough, pharyngitis, myalgia, and headache. No hospitalizations or deaths have occurred among these five cases, and all patients are recovering or have recovered from their illnesses. To date, no person-to-person spread associated with the five recent variant influenza virus infections has been identified.

Early identification and investigation of variant influenza virus infections are important to determine whether the virus is spreading efficiently among people. Rapid detection and characterization of novel influenza A viruses and efforts to reduce transmission to other people remain important components of national efforts to prevent the emergence of new viruses that could have pandemic potential. To accomplish this, testing for influenza viruses and monitoring for novel influenza A virus infections, including variant influenza virus infection, should continue year-round. Individuals, especially those at increased risk of influenza complications, can take public health measures to limit their risk of infection (e.g., limiting exposure to infected animals). Clinicians are encouraged to consider variant influenza virus infection as a possible diagnosis when evaluating patients with acute respiratory illnesses and exposure to pigs or agricultural fairs prior to illness.

Since 2005, 504 variant influenza virus infections (of different influenza A virus subtypes) have been identified in the United States; most of these infections have been associated with exposure to pigs or attendance at an agricultural fair prior to illness onset. Agricultural fairs occur across the United States each year, primarily during the summer and early fall. Many fairs have swine barns, where pigs from different geographic locations come in close contact with each other and with people. These venues may allow influenza viruses to spread among pigs and between pigs and people. Infected pigs may spread influenza viruses even if they are not symptomatic (e.g., coughing or sneezing).

CDC anticipates that state health departments may identify more cases of infection with variant influenza viruses in 2022 as the agricultural fair season continues. Testing for variant influenza viruses should focus primarily on persons with exposures known to be associated with variant influenza virus infection (e.g., agricultural fair attendance or workers in the swine industry). Novel

influenza A virus infections, which include those caused by variant influenza viruses, are notifiable conditions in the United States, and all confirmed cases should be reported to CDC within 24 hours.

Recommendations for Clinicians

- Outside of the traditional influenza season, ask patients with suspected influenza if they have any recent exposure to swine.
- Clinicians who suspect influenza in persons with recent exposure to swine should:
 - Obtain a nasopharyngeal swab or aspirate from the patient,
 - Place the swab or aspirate in a viral transport medium, and
 - Contact their state or local health department to arrange transport and request a timely diagnosis at a state public health laboratory.
- Recommend [antiviral treatment](#) in patients with suspected or confirmed variant influenza virus infection who are hospitalized, have severe illness, or are in a group considered at increased risk for complications from influenza². 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 Public Health Departments and Laboratorians

- Enhance surveillance for respiratory illness during agricultural fair season to facilitate timely detection and investigation of variant influenza virus cases.
- Respiratory specimens from persons suspected to have variant influenza A virus infection should be collected and sent for subtype-specific real-time polymerase chain reaction (RT-PCR) testing at a state public health laboratory. 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.
- Public health laboratories should immediately send influenza A virus specimens that cannot be subtyped or are presumptive variant influenza positive (using methods as outlined in the assay's Instructions for Use) to CDC and submit all specimens that are otherwise unusual as soon as possible after identification. Please email flusupport@cdc.gov to alert CDC that you have a specimen to submit.

Recommendations for the Public

- Persons who are at higher risk for influenza complications² should avoid exposure to pigs and swine barns at fairs this year. If you cannot avoid exposure to pigs, you should wear a well-fitting mask that covers the nose and mouth and should perform hand hygiene frequently.
 - All persons should take precautions when engaging in activities that may involve swine contact. Precautions include hand hygiene before and after exposure to animals, avoiding eating or drinking in animal areas, and avoiding close contact with animals that look or act ill.
- Patients with influenza-like illness who are at higher risk for influenza complications² should see their healthcare provider as soon as possible after symptom onset to determine if treatment with [antiviral medications](#) is warranted.
 - Patients who experience influenza-like symptoms following direct or close contact with pigs and who seek medical care should inform their health care provider about the exposure.

For More Information

- [Influenza A \(H3N2\) Variant Virus](#)
- [Interim Information for Clinicians about Human Infections with H3N2v Virus for State and Local Health Departments](#)
- [Prevention Strategies for Seasonal and Influenza A\(H3N2\)v in Health Care Settings](#)
- [Interim Guidance on Specimen Collection, Processing, and Testing for Patients with Suspected Influenza A \(H3N2\)v Virus Infection for Public Health Professionals](#)
- [Testing, Reporting, and Control Strategies](#)
- [People at Higher Risk of Flu Complications](#)

¹Influenza viruses that circulate in swine are called swine influenza viruses when isolated from swine but are called variant viruses when isolated from humans.

²This includes persons with [certain underlying chronic medical conditions](#) such as asthma, diabetes, heart disease, or neurological conditions, pregnant people, and persons 5 years and younger and 65 years and older, or who have weakened immune systems.

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