

Variant (Swine) Influenza Guidance for Healthcare and Public Health Providers
Michigan Department of Health and Human Services
July 20, 2017

During recent summers, swine exhibitions at agricultural fairs have been associated with human infections caused by variant influenza A viruses, such as H3N2v, H1N2v and H1N1v. In 2016, Michigan confirmed 12 human cases of variant influenza infection associated with three county fairs. Healthcare providers and public health professionals should consider variant influenza infection when evaluating persons with influenza-like illness (ILI) or investigating positive influenza results during the summer fair season. This guidance outlines the Michigan Department of Health and Human Services recommendations on variant influenza surveillance, reporting and testing for healthcare providers, laboratories, and local health departments.

Influenza Case Identification, Testing, and Treatment

1. Clinicians treating patients with an influenza-like illness (fever $\geq 100^{\circ}\text{F}$ plus a cough and/or a sore throat) should ask about recent exposure to swine or attendance at agricultural fairs.

Clinical characteristics of variant influenza infection are similar to symptoms of uncomplicated seasonal influenza, including fever, cough, pharyngitis, rhinorrhea, myalgia, and headache. Vomiting, diarrhea and conjunctivitis have also been reported in some pediatric cases. Milder illness is possible, including lack of fever. Duration of illness in most cases is approximately 3-5 days, but may be a week or more. As with seasonal flu, those at higher risk for flu-related complications may develop more serious illness.

2. Collection of upper respiratory specimens is strongly advised for any influenza-like illness (e.g., outpatients, hospitalizations, deaths) among the following:

- Patients reporting direct or indirect swine exposure or attendance at an agricultural fair
- Patients reporting close contact (within 6 ft) to an ill person with recent swine exposure
- Children <18 years of age
- Unusual or severe presentations of influenza-like illness, including hospitalizations
- Outbreaks of influenza-like illness, especially among children

3. Respiratory specimens should be collected as soon as possible after illness onset.

Preferred respiratory specimens include: nasopharyngeal swab, nasal aspirate or wash or a combined nasopharyngeal swab with oropharyngeal swab. Nasal or oropharyngeal swabs are also acceptable but less preferred. For intubated patients, also collect an endotracheal aspirate. Bronchoalveolar lavage (BAL) and sputum specimens are also acceptable.

- Specimens should be placed into sterile viral transport media and immediately placed on refrigerant gel-packs at 4°C (refrigerator) for transport to the laboratory.

4. Specimens from suspect variant influenza cases should be submitted to MDHHS:

- Commercially available rapid influenza diagnostic tests (RIDTs) and molecular-based testing **may not** detect variant influenza virus in respiratory specimens. In addition, a positive test result for influenza A cannot confirm variant influenza virus infection because these tests cannot distinguish between influenza A virus subtypes (does not differentiate between human seasonal influenza A viruses and swine variant viruses).
- For information on how to collect and submit specimens to the MDHHS Bureau of Laboratories, including the required Test Requisition form, refer to:
http://www.michigan.gov/mdch/0,4612,7-132-2945_5103-213906--,00.html

- Contact the MDHHS Division of Communicable Disease to coordinate specimen submission to the state public health laboratory.

5. The antiviral drug oseltamivir (Tamiflu) is effective in treating variant influenza infection.

Early initiation of antiviral treatment is most effective. Further information for clinicians regarding the treatment of variant influenza is available at: <https://www.cdc.gov/flu/swineflu/interim-guidance-variant-flu.htm>

6. Infection Control

Healthcare personnel who treat ill persons with suspected swine variant influenza infections should follow standard, contact, and droplet precautions as recommended for patient care. More detailed infection control recommendations are available here: <http://www.cdc.gov/flu/swineflu/prevention-strategies.htm>

How to Report Suspect Swine Variant Influenza Cases

Clinicians and Laboratorians:

To promptly report suspect cases and arrange testing, contact your local health department immediately (or contact MDHHS at 517-335-8165 or after hours at 517-335-9030).

Local Health Departments:

- Please report any confirmed, probable, or suspect variant influenza case to MDHHS at 517-335-8165 and enter the case into MDSS using the “Novel Influenza” form. Complete the Case Details form.
- MDHHS will work with local health departments to complete CDC forms if cases are identified.
- Case definitions are available online at: <http://www.cdc.gov/flu/swineflu/case-definitions.htm>

Healthcare and public health providers should continue to report other influenza cases (seasonal, suspect novel influenza cases, pediatric deaths, facility outbreaks) as previously directed; guidance is available at: www.michigan.gov/cdinfo in the Communicable Diseases (A-Z) under Influenza.

For more information on swine variant influenza, please visit the CDC’s website at: <https://www.cdc.gov/flu/swineflu/variant-flu-in-humans.htm>

Please contact the MDHHS Division of Communicable Disease at (517) 335-8165 with any questions.

This guidance should be considered interim and may change as situations warrant.