Interim Influenza Surveillance, Reporting and Testing Guidance for Healthcare Providers

Michigan Department of Community Health
August 14, 2012

This interim guidance outlines Michigan Department of Community Health (MDCH) recommendations on influenza surveillance, reporting and testing for healthcare providers in light of the recent variant H3N2 (H3N2v) influenza cases associated with swine exposure in Michigan and neighboring states. These recommendations are to assist in characterizing the scope of the current H3N2v outbreak and the transmissibility of this virus.

Future updates may be issued if H3N2v influenza virus severity, activity or transmission changes. Please call the MDCH Division of Communicable Disease at (517) 335-8165 with any questions.

Background on H3N2v Human Cases

- In 2011, a new swine influenza A (H3N2v) virus was detected that had acquired the M gene from the influenza A(H1N1)pdm09 (2009 H1N1) virus. It is possible that the 2009 H1N1 virus M gene may make H3N2 viruses in swine more transmissible to humans and possibly among humans.
- According to USDA swine influenza surveillance, this swine H3N2 virus with the pandemic M gene has been detected in swine in a number of U.S. states. This virus may be circulating widely in U.S. swine at this time.
- When human infections with these viruses occur, these viruses are called “variant” viruses (which can also be denoted with the letter “v”).
- During 2011, 12 human cases of infection with H3N2v influenza viruses were reported in 5 states. From July 2012 through August 10, 2012, 153 new human cases have also been reported in association with direct and indirect exposure to swine at county fairs. Cases have occurred in Michigan and neighboring states.
- Limited human-to-human transmission of this virus occurred during 2011. No sustained (ongoing) community transmission of H3N2v virus has been observed at this time.
- Most cases have occurred in children; children may lack cross-protective immunity to the H3N2v virus. Clinical symptoms are usually mild and are consistent with seasonal flu symptoms. As with seasonal flu, those at higher risk for flu-related complications may develop more serious illness.
- CDC recommends annual seasonal influenza vaccination for all persons aged 6 months and older to protect against seasonal influenza viruses; however, seasonal influenza vaccine is unlikely to protect against variant influenza viruses, including H3N2v viruses.
- The two FDA–approved prescription antiviral drugs oseltamivir (Tamiflu) and zanamivir (Relenza) – which are used to treat infection with seasonal influenza viruses –are also expected to be effective in treating H3N2v virus infection. Early initiation of antiviral treatment is most effective.
- Influenza variant viruses have not been shown to be transmissible to people through eating or proper handling of pork (pig meat) or other products derived from pigs.
- The most current national information, including case counts updated every Friday, can be found on the CDC’s website http://www.cdc.gov/flu/swineflu/influenza-variant-viruses-h3n2v.htm.
- Michigan influenza activity continues to be summarized in the MI FluFocus weekly report (available online at www.michigan.gov/flu).

Influenza Case Identification, Testing and Treatment

- Current seasonal influenza circulation in Michigan is very sporadic. Therefore, patients with an influenza-like illness (fever >100°F plus a cough and/or a sore throat) should be questioned about recent exposure to swine or attendance at county or state fairs.
- Clinical characteristics of H3N2v human cases generally have been similar to signs and symptoms of uncomplicated seasonal influenza, including fever, cough, pharyngitis, rhinorrhea, myalgia, and headache. Vomiting and diarrhea have also been reported in some pediatric cases.
- Collection of respiratory specimens, preferably nasopharyngeal swabs, has always been encouraged for influenza-like illness patients of any patient type (e.g., outpatients, hospitalizations, deaths) during times of low influenza circulation. Due to the recent H3N2v situation, there is extra emphasis on influenza testing for patients in the following priority areas:
    - Patients reporting direct or indirect swine exposure or attendance at a county fair
    - Children <18 years of age
    - Unusual or severe presentations of influenza-like illness
    - Outbreaks of influenza-like illness, especially among children
- Commercially available rapid influenza diagnostic tests (RIDTs) **may not** detect H3N2v virus in respiratory specimens. In addition, a positive test result for influenza A cannot confirm H3N2v virus infection because these tests cannot distinguish between influenza A virus subtypes (does not differentiate between human influenza A viruses and H3N2v virus).
- PCR testing available at private, clinical and hospital labs will most likely detect the presence of influenza A virus infection, but may not differentiate an H3N2v infection.
- In Michigan, PCR testing that can diagnose H3N2v infection is currently only available at the MDCH Bureau of Laboratories. ***Specimens from suspect H3N2v cases should be submitted directly to MDCH.***
- Information on how to collect and submit specimens to the MDCH Bureau of Laboratories, including the required Test Requisition form, can be found at the following website: http://www.michigan.gov/mdch/0,4612,7-132-2945_5103-213906--,00.html
- Information for clinicians regarding the treatment of H3N2v influenza is available at the following website: http://www.cdc.gov/flu/swineflu/h3n2v-clinician.htm

Influenza Reporting Recommendations

- ***Weekly counts of influenza-like illness***
    - Continue to report counts to your local health department as previously established
- ***Please notify your local health department regarding the following case presentations:***
    - Suspect variant H3N2 (H3N2v) influenza cases
    - Pediatric influenza-associated deaths (<18 years of age)
    - Severe, unusual presentations of influenza
    - Facility outbreaks
- ***Suspect cases of avian influenza or novel influenza strains (not the 2009 A/H1N1 strain)***
    - Immediately notify your local health department (alternatively, MDCH may be contacted at (517) 335-8165 or after hours at (517) 335-9030)