



County of Erie

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HEALTH ADVISORY #296 Increase in Influenza A H3N2v Virus Infections

August 8, 2012

Please distribute to Healthcare Providers, chief of Medicine, Primary Care Internal Medicine, Infection Disease, Pediatrics, Emergency Medicine, Family Medicine, Laboratory Medicine, and Infection Control

SUMMARY

- Multiple infections with variant* influenza A (H3N2v) viruses have recently been identified in 3 states. From July 12 through August 3, 2012, 16 H3N2v cases were reported and confirmed by CDC.
- The 16 cases reported contact with swine prior to illness onset; in 15 cases, contact occurred while attending or exhibiting swine at an agricultural fair.
 - Cases in different states are not epidemiologically related.
- Clinicians suspecting influenza in persons with recent swine exposure should **(1)** obtain a nasopharyngeal swab or aspirate from the patient, **(2)** place the swab or aspirate in viral transport medium, and **(3)** contact the Erie County Department of Health (ECDOH) for guidance (Epidemiology and Surveillance program at (716) 858-7697, Monday – Friday 8:30 AM – 3:30 PM).
- Clinicians should consider antiviral treatment with oral oseltamivir or inhaled zanamivir in patients with suspected or confirmed H3N2v infection.
 - **Antiviral treatment is most effective when started as soon as possible after influenza illness onset.**

*Influenza viruses that circulate in swine are called swine influenza viruses when isolated from swine, but are called variant viruses when isolated from humans

BACKGROUND

The influenza A (H3N2v) virus was first detected in humans in July 2011. It has also been isolated in U.S. swine in many states. Since July 12, 2011, there have been 29 cases of H3N2v virus infection, including the 16 cases occurring in the last three weeks. All 29 cases were infected with H3N2v viruses that contain the matrix (M) gene from the influenza A (H1N1)pdm09 virus. This M gene may confer increased transmissibility to and among humans, compared to other variant influenza viruses. All cases have been laboratory-confirmed at CDC.

Each of the 16 cases identified since July 12, 2012, reported contact with swine prior to illness onset; in 15 cases, contact occurred while attending or exhibiting swine at an agricultural fair. While the viruses identified in these cases are genetically nearly identical, separate swine exposure events in each state were associated with human infections. There is no indication that the cases in different states are epidemiologically related.

CLINICAL PRESENTATION

Clinical characteristics of the 16 H3N2v recent cases have been generally consistent with signs and symptoms of seasonal influenza, and have included fever, cough, pharyngitis, myalgia, and headache. No hospitalizations or deaths have occurred among the 16 confirmed cases since July 2012. Public health and agriculture officials are investigating the extent of disease among humans and swine, and additional cases are likely to be identified as the investigation continues.

REPORTING

Novel influenza A virus infection has been a nationally notifiable condition in the United States since 2007. Since that time, human infection with animal-origin influenza viruses has been rare, with ≤ 6 cases reported each year, until 2011 when 14 cases were identified. While most of the cases are thought to have been infected as a result of close contact with swine, limited human-to-human transmission of this virus was identified in some cases in 2011. Therefore, enhanced influenza surveillance is indicated, especially in regions and states with confirmed H3N2v cases. If H3N2v is suspected, contact ECDOH Epidemiology and Surveillance program at (716) 858-7697, Monday – Friday 8:30 AM – 3:30 PM.

INTERIM RECOMMENDATIONS FOR HEALTH CARE PROVIDERS

- Clinicians who suspect influenza in persons recently exposed to swine should obtain a nasopharyngeal swab or aspirate from the patient, place the swab or aspirate in viral transport medium, and contact and request a timely diagnosis from ECDOH Public Health Laboratory (PHL). Reverse-transcription polymerase chain reaction (RT-PCR) testing for influenza should be considered for patients with influenza-like illness prior to the start of the traditional influenza season in October.
- RT-PCR testing for influenza should be considered throughout the year for patients with influenza-like illness reporting recent swine exposure and for those who can be epidemiologically linked to confirmed cases of variant influenza.
- Commercially available rapid influenza diagnostic tests (RIDTs) may not detect H3N2v virus in respiratory specimens and cannot distinguish between influenza A virus subtypes (they do not differentiate between human influenza A viruses and H3N2v virus). Therefore, a negative rapid influenza diagnostic test result does not exclude H3N2v or any influenza virus and a positive influenza A test result cannot confirm H3N2v virus infection. Therefore, respiratory specimens should be collected and sent for RT-PCR testing to ECDOH PHL.
- Clinicians should consider antiviral treatment with oral oseltamivir or inhaled zanamivir in patients with suspected or confirmed H3N2v virus infection. **Antiviral treatment is most effective when started as soon as possible after influenza illness onset.**

CONTACT INFORMATION

Providers with questions or concerns may contact ECDOH's Epidemiology and Surveillance program at (716) 858-7697, Monday – Friday 8:30 AM – 3:30 PM.

FOR MORE INFORMATION

“Interim Guidance on Case Definitions to be Used for Investigations of Influenza A (H3N2) Variant Virus Cases” for state and local health departments is available at <http://www.cdc.gov/flu/swineflu/case-definitions.htm>.

“Prevention Strategies for Seasonal and Influenza A(H3N2)v in Health Care Settings” is available at <http://www.cdc.gov/flu/swineflu/prevention-strategies.htm>.

“Interim Guidance on Specimen Collection, Processing and Testing for Patients with Suspected Influenza A (H3N2) Variant Virus Infection” for public health professionals is available at <http://www.cdc.gov/flu/swineflu/h3n2v-testing.htm>.

Health Category Definitions:

Health Alert FLASH: conveys the highest level of importance due to a large-scale, catastrophic public health emergency; warrants immediate action or attention

Health Alert Priority: conveys the highest level of importance; warrants immediate action or attention to a health problem or situation

Health Advisory: provides important information for a specific incident or situation; may not require immediate action

Health Update: provides updated information regarding an incident or situation; no immediate action necessary

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The ECDOH Health Alert & Advisory System is an e-mail notification system designed to alert community partners about important health related information. You can sign up to receive alerts & advisories at <http://www2.erie.gov/health/index.php?q=node/59>.