



This is an official Oklahoma Health Alert Network Health Advisory

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Swine Influenza A (H1N1) Infections in California and Texas: Enhanced Surveillance and Testing Recommendations for Oklahoma Clinicians and Laboratories

The Oklahoma State Department of Health (OSDH) has been advised that public health officials in California and Texas are investigating seven human cases of febrile respiratory illness caused by infection with swine influenza A (H1N1) virus. All cases were detected through routine surveillance for seasonal influenza and had a self-limited influenza-like illness. The case-patients reported no common exposures and no known pig exposures suggesting that human-to-human transmission is occurring. The isolated viruses are closely related genetically, resistant to amantadine and rimantadine, and contain a unique combination of gene segments that previously have not been reported among swine or human influenza viruses in the United States or elsewhere. Generally swine flu viruses do not infect humans, but sporadic human infections do occur. At this time, there have been no cases of swine influenza A (H1N1) identified in Oklahoma. However, the OSDH is implementing enhanced statewide influenza surveillance to identify any potential cases that may be occurring.

Case Histories

As of April 23, 2009, five cases of human infection with swine influenza have been detected in the state of California. The first case occurred in a 10-year-old boy from San Diego County, CA with onset of fever, cough, and vomiting on March 30, 2009. He was taken to an outpatient clinic, and a nasopharyngeal swab was collected for testing. The child traveled to Texas while febrile on April 3rd. The second case occurred in a 9-year-old girl from Imperial County, CA with onset of fever and cough on March 28, 2009. Nasopharyngeal swabs were collected from both cases and submitted to the state reference laboratory and identified as an unsubtypable influenza A strain. Specimens were then forwarded to the Centers for Disease Control and Prevention (CDC) and determined to be swine influenza A (H1N1).

Subsequently, three additional unsubtypable samples were collected from California residents and also identified as swine influenza A (H1N1) virus. Two of these new cases were identified in San Diego County; one case was from Imperial County, CA. The two cases from San Diego County occurred in a father and teenage daughter. The third case (from Imperial County) is a 41-year old female. With the exception of the father and teenage daughter, no epidemiologic links have been identified among these cases.

The Texas Department of State Health Services has identified two confirmed cases of swine influenza A (H1N1); both cases are 16-year-old boys from Bexar County. Cases are high school classmates with symptom onset dates of April 10th and April 14th and no known contact with the CA cases.

The World Health Organization is investigating an unusual increase in influenza activity beginning in late March in the Mexico City area. Laboratory testing is ongoing to determine the etiologic agent.

Enhanced Surveillance Recommendations

Although seasonal influenza activity is waning in Oklahoma, the OSDH requests that clinicians be alert for possible cases of swine influenza A, collect appropriate specimens upon suspicion, and report suspect cases to the Acute Disease Service by calling the Epidemiologist-on-Call at (405) 271-4060 or by using the secure, web-based disease reporting system, Public Health Investigation and Disease Detection in OK (PHIDDO, advance access required). Clinicians that are users of the PHIDDO system may report these cases by logging on to PHIDDO and entering cases under the Disease/Condition "Influenza-Novel".

Collection of Respiratory Specimens and Influenza Testing is recommended for the following:

1. Patients with symptoms of influenza-like illness (ILI) defined as a fever ($\geq 100^{\circ}\text{F}$) AND cough and/or a sore throat in the absence of a known cause other than influenza, **AND**
2. At least one of the following potential exposures within 10 days of symptom onset:
 - a. History of travel to a state with confirmed swine influenza A (California and Texas as of April 23, 2009) or Mexico,
 - b. Direct contact with pigs, or
 - c. Close contact (within 1 meter [approx. 3 feet]) to a person with respiratory illness and recent history of travel or contact with pigs.

Specimen collection guidelines for viral culture:

1. Clinicians should screen **all** patients with ILI symptoms using an influenza rapid antigen test kit. If patients are rapid antigen positive for influenza A, collect 2 nasopharyngeal or throat swabs for viral culture and PCR testing at the OSDH Public Health Laboratory (PHL). If patients are rapid antigen negative, but report any of the potential exposures listed above, respiratory specimens should still be collected and submitted for viral culture.
2. The optimum collection time is within the first 3 days of illness.
3. Collect a throat swab or a combination of a nasopharyngeal swab and a throat swab for viral culture. Nasal washes/aspirates may be sent for isolation if accompanied by a throat swab. Sputum collection is appropriate only with cases of lower respiratory disease.
4. Label the viral transport media (VTM) tubes with the patient's name and the date of collection.
5. Place the swab in the VTM and replace the lid tightly. Break the shaft of the swab if necessary.
6. Package specimens according to standard guidelines for transport.
7. Complete an OSDH PHL requisition form (#419) for each specimen. Place the form in the side pouch of the plastic bag.
8. Refrigerate immediately. Specimens must be kept cool until received by the laboratory for testing. Specimens must be shipped with cold packs and received by the OSDH PHL within 72 hours of collection.
9. Call the OSDH PHL Shipping & Receiving Dept at (405) 271-5070 to arrange courier pick-up and transport to the OSDH PHL in a timely manner.

Consultation is available 24/7 by contacting the Epidemiologist-on-Call at (405) 271-4060. Additional resources regarding infection prevention and control guidelines and antiviral treatment and prophylaxis recommendations are available on the OSDH website www.ok.gov/health.

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Categories of Health Alert messages:

Health Alert highest level of notification that the Oklahoma State Department of Health will send out. This usually refers to an immediate threat to the OSDH community and requires immediate action.

Health Advisory advises medical providers of a condition in the area. These are usually not medical emergencies. These may not require immediate action.

Health Update provides updates on previous alerts or advisories. These are unlikely to require immediate action.

This advisory was distributed to Primary Care and Infectious Disease Physicians, Laboratories, Infection Control Practitioners, Emergency Rooms and State and Local Health Officials

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You have received this message based upon the information contained within our emergency notification database. If you have a different or additional e-mail or fax address that you would like us to use please contact the OSDH Acute Disease Service at (405) 271-4060.

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