



**North Carolina Department of Health and Human Services
Division of Public Health • Office of the State Health Director**

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State Health Director

April 24, 2009

To: All Health Care Providers
CC: All Local Health Directors, Hospital Public Health Epidemiologists
From: Jean-Marie Maillard, MD, MPH, Acting State Epidemiologist
Re: **Swine Influenza A Virus Infection (Message #2: 2 pages)**

Background

There have been 8 confirmed cases of swine influenza A reported in Southern California and, newly, in Texas. Of the 8 cases reported, none had known exposure to pigs. All 8 cases were identified through routine surveillance and had symptoms typical of uncomplicated influenza infection (fever plus cough and/or sore throat). CDC also reports positive isolates from clinical specimens from Mexico. There have been no confirmed or suspected cases in NC to date.

This current strain of influenza has exhibited resistance to the adamantanes, however it does appear to be sensitive to neuraminidase inhibitors. This year's seasonal influenza vaccine does not appear to provide immunity to this strain of flu.

Although uncomplicated influenza-like illness (fever, cough or sore throat) has been reported in many cases, mild respiratory illness (nasal congestion, rhinorrhea) without fever and occasional severe disease also has been reported. Other symptoms reported with SIV infection include vomiting, diarrhea, myalgia, headache, chills, fatigue, and dyspnea. Severe disease (pneumonia, respiratory failure) and fatal outcomes have been reported with SIV infection. The potential for exacerbation of underlying chronic medical conditions or invasive bacterial infection with SIV infection should be considered.

Preliminary epidemiologic investigation results in 43 contacts having been identified around the first 3 cases and 9 of those contacts report Influenza-Like Illness (ILI) (an attack rate ~ 20%). For the confirmed cases, all have recovered and their flu symptoms were normal.

Current Case Definition

A confirmed case of swine influenza virus infection (SIV) is defined as a person with an acute respiratory illness with laboratory confirmed SIV at CDC by one or more of the following tests:

1. real-time RT-PCR
2. viral culture
3. four-fold rise in SIV specific neutralizing antibodies

A suspected case of SIV is defined as a person with an acute respiratory illness who was a close contact to a confirmed case of SIV infection while the case was ill, or is an acutely ill person (acute respiratory illness) with a recent history of contact with an animal with confirmed or suspected SIV infection.

Close contact is defined as: within about 6 feet of an ill person who is a confirmed case of swine influenza A virus infection

Acute respiratory illness is defined as recent onset of at least two of the following: rhinorrhea or nasal congestion, sore throat, cough (with or without fever or feverishness)

Infectious Period

Persons with swine influenza virus infection should be considered potentially contagious for up to 7 days following illness onset. Persons who continue to be ill longer than 7 days after illness onset should be considered potentially contagious until symptoms have resolved. Children, especially younger children, might potentially be contagious for longer periods. The duration of infectiousness might vary by SIV strain.

For Additional Information or Questions:

NC Division of Public Health Communicable Disease On-Call 919 733 3419
CDC: <http://www.cdc.gov/flu/swine/recommendations>



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Recommendations

All Health Care Providers are asked to collect a throat washing or swab and a nasopharyngeal washing or swab on patients who present with febrile respiratory illness **AND**

- a. Live in San Diego or Imperial County, CA or San Antonio, TX OR
- b. Have traveled to San Diego or Imperial Counties, Ca or San Antonio, TX OR
- c. Have been in close contact with people from these areas in California and Texas within 7 days from the onset of symptoms

2- Antiviral medications:

- a. These recommendations may change once further information is obtained. Please stay alert to updated recommendations.
- b. Treatment of suspected swine influenza should begin as soon as possible and consists of:
 - i. Oseltamivir (Tamiflu)
 1. Ages 13 and over: 75 mg twice a day for 5 days
 2. Children:
 - a. 15 kg-23 kg: 45 mg twice a day for 5 days
 - b. 23 kg- 40 kg: 60 mg twice a day for 5 days
 - c. > 40 kg: 75 mg twice a day for 5 days
 - ii. Zanamivir (Relenza)
 1. is an alternative for treatment in patients 7 years and older
 2. 2 inhalations of 5 mg twice a day for 5 days
- c. Chemoprophylaxis for swine influenza
 - i. Oseltamivir
 1. Ages 13 and older: 75 mg once a day for 7 days after the last known exposure
 2. Children:
 - a. 15 kg-23 kg: 45 mg once a day for 7 days after the last known exposure
 - b. 23 kg- 40 kg: 60 mg once a day for 7 days after the last known exposure
 - c. > 40 kg: 75 mg once a day for days 7 after the last known exposure
 - ii. Zanamivir:
 1. is an alternative for chemoprophylaxis in patients 5 years and older
 2. 2 inhalations of 5 mg once a day for 7 days after the last known exposure
- d. Treatment of seasonal influenza should begin as soon as possible and consists of :
 - i. Combination treatment with oseltamivir and rimantadine (Flumadine)OR treatment with zanamivir alone
- e. At this time, patients presenting with ILI should be covered for both swine influenza and seasonal influenza based on the recommendations above.

3- Vaccine:

- a. This year's seasonal influenza vaccine does not provide immunity to this strain of flu.

4- Infection Control

- a. Non-hospitalized confirmed or suspected cases
 - i. Separation from others in a single room if available until asymptomatic.
 - ii. Practice good respiratory hygiene, hand washing and cough etiquette.
 - iii. Personal utensils should be washed thoroughly before use by others.
- b. Hospitalized patients
 - i. Follow standard, droplet and contact precautions for 7 days after illness onset or until symptoms have resolved in single patient room. Airborne infection isolation is room (AIIR) with negative pressure if available can be used.
 - ii. Personnel entering the patient's room should use N95 respirators.
 - iii. For suctioning, bronchoscopy, or intubation, use a procedure room with negative pressure air handling.
- c. Recommended PPE for personnel providing clinical care to *ill individuals*
 - i. Disposable gown, gloves, goggles, N95 respirator
 - ii.

5- Follow-up Monitoring of Exposed Close Contacts

- a. Defined as persons who were within about 6 feet of the confirmed swine influenza case while the case was ill up to 7 days after the case's illness onset.
 - i. Monitor daily for fever (temp 38.0 °C) and/or any respiratory symptoms up to 7 days following the last known exposure to a confirmed case.
 - ii. Educate about the signs and symptoms of swine influenza virus infection and advised to contact public health staff if fever or feverishness or any respiratory tract symptoms occur up to 7 days following the last known exposure to the ill case.

- 6- **Contact your Local Health Department** for reporting cases or with questions regarding treatment.