



Version 5

May 7, 2009

## Guidance Document: Enhanced Influenza Surveillance and Treatment for Hospitals and Clinicians for Swine-Origin Influenza A (H1N1)

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This situation is rapidly evolving nationally and internationally. This document will be considered out of date if another guidance document is issued at a later time. This document will be posted on the Bureau of Epidemiology website at [http://www.doh.state.fl.us/disease\\_ctrl/epi/swineflu/index.html](http://www.doh.state.fl.us/disease_ctrl/epi/swineflu/index.html).

**Report** the following immediately to your local county health department:

- A) Patients admitted to the hospital with ILI; OR
- B) Patients of epidemiologic significance\*

**Test** the following through the state Bureau of Laboratories AFTER consultation with your local county health department:

- A) Patients admitted to the hospital with ILI; OR
- B) Patients of epidemiologic significance\*

**Treatment or postexposure prophylaxis are recommended for:**

- Hospitalized patients with ILI who are severely ill or at high risk of complications
- Confirmed or probable cases of swine-origin influenza A (H1N1) who are at high risk of complications
- Other patients with ILI who are at high risk of complications,
- Non-ill contacts of confirmed or probable cases who are at high risk of complications,
- Non-ill healthcare or public health workers with unprotected close contact with a suspected, probable or confirmed case.

\* Epidemiologic significance: Patients with influenza-like-illness (ILI) who are among the first few ill persons (2-5) in an outbreak or cluster of influenza-like illness, particularly in settings such as a healthcare facility, long-term-care facility, correctional facility, shelter, work-place, college, or school; or patients with ILI and suspected swine-origin influenza A (H1N1) who if confirmed or probable would be the first such case in their county.

Dear Colleagues,

This is an update to guidance documents previously numbered 2, 3, 4, 4.1, and 4.2 issued over the past week.

Please help us reduce unnecessary use of the state public health laboratory, now that we have a better picture of the epidemiology of this infection. From 4/26/2009 through 5/6/2009, we performed PCR test on 1120 specimens from people with influenza-like-illness. Of these only 163, or 14.5%, tested positive for influenza. Of these 163 influenza-positive specimens, 136 were positive for non-swine origin influenza – seasonal influenza A (121) and influenza B (15).

Thanks to your efforts and responsiveness to our guidance requests, we now know quite a bit about the epidemiology of infection with swine-associated influenza A (H1N1) in Florida. As of May 6 at 2:00 pm we have had 5 confirmed cases and 22 probable cases in Florida. We expect almost all the probable cases to be confirmed when tested at the CDC.

Yesterday CDC issued new guidance for management of influenza in K-12 schools (see [http://www.cdc.gov/h1n1flu/K12\\_dismissal.htm](http://www.cdc.gov/h1n1flu/K12_dismissal.htm)). Our earlier recommendations for testing and treatment were designed in large part to provide surveillance information that could be used to guide school closure decisions. Our new guidance for schools will emphasize prevention and control of **ALL** influenza-like-illness (ILI), regardless of whether or not it is due to swine-origin influenza A (H1N1). Thus the need to identify every individual child in the community infected with the swine-origin influenza A (H1N1) virus is much less. This is what motivates yet another change in our guidance.

It is now becoming clear that the average severity of illness is similar to, but not less than, that of seasonal influenza viruses that have been circulating in recent years. Based on our current data, it also appears that attack rates have been higher in children and young adults than in older adults. The reasons for this are not yet clear.

We are experiencing a late-season emergence of a novel virus strain – emerging just as our regular season (dominated by influenza A H3N2 and influenza B strains) was ending. The course of the epidemic over the next several weeks is far from certain, but if it follows the course of most such events, influenza activity will fall markedly over the summer months and resume in the fall. Most likely the influenza vaccine for the next influenza season will contain antigens designed to protect against this novel virus. Experience with the new virus over the southern hemisphere winter, which is about to start, will be extremely informative.

We are refocusing our surveillance efforts on patients with ILI who are:

- A) Patients admitted to the hospital with ILI.
- B) Patients of epidemiologic significance: Patients with influenza-like-illness (ILI) who are the first few ill persons (2-5) in an outbreak or cluster of influenza-like illness, particularly in settings such as a healthcare facility, long-term-care facility, correctional facility, shelter, work-place, college, or school; or patients with ILI and suspected swine-origin influenza A (H1N1) who if confirmed or probable would be the first such case in their county.

Please refer to the information below regarding criteria for when it is appropriate to send patient specimens to the Bureau of Laboratories for influenza testing. **These are even more restrictive than previous criteria.**

In general, please refer to the **Florida guidance and attached Florida algorithm** to assist in decisions on testing and treatment for swine-origin influenza A (H1N1) (swine flu) virus. **(The attached Florida testing algorithm differs from the CDC issued testing algorithm and from the one contained in earlier versions of this document.)**

While Rule 64D-3, *Florida Administrative Code* requires reporting of all suspected cases of novel influenza infection, operationally we are seeking reports of suspected cases **only** when they meet criteria A or B below. Please report ALL suspected cases and collect and submit specimens of this novel infection to your county health department **only** if they are in the A or B categories in this document. Please consult with your county health department **before** submitting specimens to the state public health laboratory for testing.

- A) Patients admitted to the hospital with ILI.
- B) Patients of epidemiologic significance: Patients with influenza-like-illness (ILI) who are the first few ill persons (2-5) in an outbreak or cluster of influenza-like illness, particularly in settings such as a healthcare facility, long-term-care facility, correctional facility, shelter, work-place, college, or school; or patients with ILI and suspected swine-origin influenza A (H1N1) who if confirmed or probable would be the first such case in their county.

**ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat in the absence of a KNOWN cause other than influenza.**

**Clinicians should contact their county health department ([http://www.doh.state.fl.us/disease\\_ctrl/epi/topics/contact.htm](http://www.doh.state.fl.us/disease_ctrl/epi/topics/contact.htm)) to report suspected cases according to this guidance and facilitate transport and timely diagnosis at the Bureau of Laboratories.**

Healthcare providers who are part of our sentinel provider network for influenza surveillance should continue to follow the testing directions for that program, as well as reporting cases as above.

## **Post-exposure antiviral prophylaxis for persons exposed to infection with this virus**

For persons exposed to infection with swine-origin influenza A (H1N1) CDC **recommends** (full guidance at <http://www.cdc.gov/h1n1flu/recommendations.htm>): “Antiviral chemoprophylaxis with either oseltamivir or zanamivir is **recommended** for the following individuals:

1. Household close contacts who are at high-risk for complications of influenza (e.g., persons with certain chronic medical conditions, persons 65 or older, children younger than 5-years-old, and pregnant women) of a **confirmed or probable case**.
2. Health care workers or public health workers who were not using appropriate personal protective equipment during close contact with an ill **confirmed**,

**probable, or suspect case** of swine-origin influenza A (H1N1) virus infection during the case's infectious period. See guidelines on personal protective equipment."

Consult the full guidance for additional details on persons in whom prophylaxis **may** be considered.

Please follow these guidelines when deciding on post-exposure prophylaxis for patients under your care. And please work with your patients to identify close contacts who may benefit from post-exposure antiviral prophylaxis. Post-exposure antiviral prophylaxis for contacts should be provided through their physician or usual source of health care.

## Specimen Collection:

- Collect throat or nasopharyngeal specimens with a viral swab and place in viral transport medium (VTM) from those patients with ILI.
  - **Definition of ILI: Fever  $\geq 37.8^{\circ}\text{C}$  ( $100^{\circ}\text{F}$ ) and a cough and/or sore throat**
- Preferred specimen is an oropharyngeal swab or nasopharyngeal swab; most other routine respiratory specimens are also acceptable, but not recommended.
  - nasopharyngeal swabs (**not** nose swabs) (must have an adequate volume of sample or the test will not be valid)
  - nasopharyngeal aspirates (nasal wash)
  - bronchial wash
  - sputum (**not** saliva)
- Please collect up to 2 specimens from each patient with ILI. Swabs **must** be placed in 2-3 ml of viral transport media.
- Specimens should be collected within 3 days of onset of illness and no later than 5 days after onset of symptoms.
- If the patient is hospitalized with pneumonia, specimens from the lower respiratory tract (e.g., tracheal aspirate, bronchoalveolar lavage) should **also** be obtained.
- When influenza is detected in a clinical laboratory by **rapid testing** methods, please send an aliquot (1-2 ml) of the original suspension (not exposed to test kit reagents) in viral transport media; or if an additional original specimen is available, that is preferable.
- If influenza is detected in a clinical laboratory by **viral culture**, please send the actively growing viral culture tube with 2 ml of viral maintenance media.

## Specimen shipping:

- All specimens should be accompanied by a BOL Laboratory requisition form, which may be accessed at [http://www.doh.state.fl.us/lab/PDF\\_Files/doh\\_form.pdf](http://www.doh.state.fl.us/lab/PDF_Files/doh_form.pdf)
  - Please completely fill out the requested patient information on the submission sheets.
  - Please fill in symptoms, onset date, and travel history sections.
  - In the laboratory comments section of the form indicate test order is to rule out S-OIV and add other comments as appropriate (severity of illness, exposure to a known case, etc.).
- Ship to Florida Department of Health, Bureau of Laboratories; Laboratory addresses are on page 2 of the submission form. Prior to specimen shipment, contact your county health department.

- Keep specimens refrigerated at 4°C and ship on gel ice **no later than 48 hours** post collection. If you have any questions, please do not hesitate to call your county health department for information; or, if you are unable to reach your county health department, please contact the Bureau of Epidemiology 850-245-4401. Additional information can be found on the Centers for Disease Control and Prevention website: <http://www.cdc.gov/h1n1flu/>

# Interim CDC and DOH Guidance on Case Definitions to be Used For Investigations of Swine-Origin Influenza A (H1N1) Cases

Current as of May 7, 2009

This document provides interim guidance for state and local health departments conducting investigations of human cases of swine-origin influenza A (H1N1) virus (S-OIV). The following case definitions are for the purpose of investigations of suspected, probable, and confirmed cases of S-OIV infection.

**Acute febrile respiratory illness** is defined as a measured temperature of 100 degrees Fahrenheit **and** recent onset either sore throat or cough.

## Case Definitions for Infection with Swine-origin Influenza A (H1N1) Virus (S-OIV)

Case definitions can be found on the CDC website  
[http://www.cdc.gov/h1n1flu/casedef\\_swineflu.htm](http://www.cdc.gov/h1n1flu/casedef_swineflu.htm)

A **confirmed case** of S-OIV infection is defined as a person with an acute febrile respiratory illness with laboratory confirmed S-OIV infection at CDC by one or more of the following tests:

1. real-time RT-PCR
2. viral culture

A **probable case** of S-OIV infection is defined as a person with an acute febrile respiratory illness who is positive for influenza A, but negative for H1 and H3, by influenza RT-PCR.

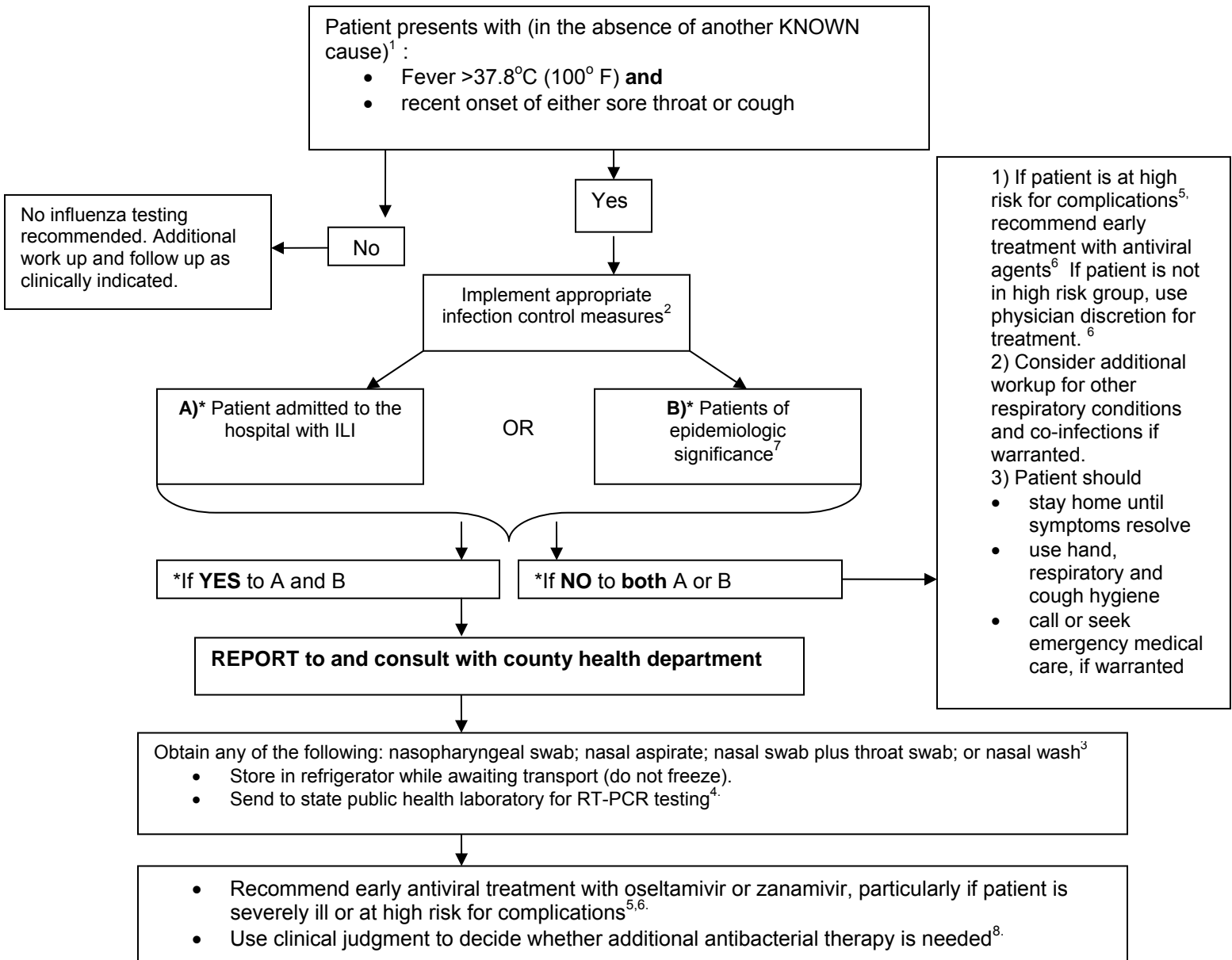
A **suspected case** of S-OIV infection is defined as a person with acute febrile respiratory illness with onset:

- within 7 days of close contact with a person who is a confirmed case of S-OIV infection, or
- within 7 days of travel to a community\* either within the United States or internationally where there are one or more confirmed cases of S-OIV infection, or
- resides in a community\* where there are one or more confirmed cases of S-OIV infection.

**\*Florida note:** Within Florida, we consider '**community**' to mean '**state**'. Also, we consider probable cases based on state public health laboratory results to be the equivalent of confirmed cases for clinical and public-health decision-making.



**Algorithm for clinicians, to assist in decisions on testing and treatment for H1N1 (swine flu) virus, as of May 7.  
Use with the DOH guidance on laboratory testing issued May 7, 2009**



1. As with seasonal influenza, infants, adults ≥65 years-old, and persons with compromised immune systems may have atypical presentations.

2. Information on infection control can be found at: [http://www.cdc.gov/swineflu/guidelines\\_infection\\_control.htm](http://www.cdc.gov/swineflu/guidelines_infection_control.htm).

3. Nasal washes require appropriate personal protective equipment. See: [http://www.cdc.gov/swineflu/guidelines\\_infection\\_control.htm](http://www.cdc.gov/swineflu/guidelines_infection_control.htm).

4. Real-time polymerase chain reaction (RT-PCR) is the preferred laboratory test for identifying H1N1 (swine flu) virus. Rapid antigen tests and immunofluorescence tests have unknown sensitivity and specificity to detect H1N1 (swine flu) virus. If a rapid antigen test is performed and **is negative for influenza A**, specimens should still be forwarded to the Bureau of Laboratories for testing if **both the A and B criteria above are met**. If the rapid antigen test is able to distinguish between influenza A and B and is **positive for influenza B**, specimens should **ONLY be forwarded** to the Bureau of Laboratories for testing for hospitalized patients. For more information, please see <http://www.cdc.gov/swineflu/specimencollection.htm>.

5. Persons at high risk of complications: Children less than 5 years old; persons aged 50 years or older; children and adolescents (aged 6 months–18 years) who are receiving long-term aspirin therapy and who might be at risk for experiencing Reye syndrome after influenza virus infection; pregnant women; adults and children who have chronic pulmonary, cardiovascular, hepatic, hematological, neurologic, neuromuscular, or metabolic disorders; adults and children who have immunosuppression (including immunosuppression caused by medications or by HIV); and residents of nursing homes and other chronic-care facilities.

6. Information on use of antiviral agents can be found at: <http://www.cdc.gov/swineflu/recommendations.htm>.

7. Patients of epidemiologic significance: Patients with influenza-like-illness (ILI) who are among the first few ill persons (2-5) in an outbreak or cluster of influenza-like illness, particularly in settings such as a healthcare facility, long-term-care facility, correctional facility, shelter, work-place, college, or school; or patients who if confirmed or probable would be the first such case in their county.

8. Interim guidance for clinicians is available at: <http://www.cdc.gov/swineflu/identifyingpatients.htm>.

**Please note:** these algorithms do **not** apply to providers participating in the Florida Sentinel Influenza-like Illness Surveillance Network. For guidance related to this program please see guidance for Florida Sentinel Influenza Surveillance Network (FSISN) Enhance Influenza Surveillance. [http://www.doh.state.fl.us/disease\\_ctrl/epi/swineflu/index.html](http://www.doh.state.fl.us/disease_ctrl/epi/swineflu/index.html)