

Alaska Public Health Update

H1N1 Flu (Swine Flu) Virus Interim Guidance for Alaska Health Care Providers

May 1, 2009

Recommendations and guidelines are changing on a daily basis as the U.S. Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) learn more about the swine-origin influenza A (H1N1) virus. Internet links provided below will offer the most current information regarding each specific topic. Additional swine flu information can be found at <http://www.epi.hss.state.ak.us/id/influenza/swineflu.htm>.

WHEN TO CONSIDER THE DIAGNOSIS OF SWINE INFLUENZA A (H1N1)*

- The signs and symptoms of swine influenza are indistinguishable from seasonal human influenza. The symptoms of influenza include fever, sore throat, cough, myalgias, arthralgias, headache, prostration, and in some cases, nausea, vomiting, and diarrhea.
- Seasonal influenza A (H1N1) and A (H3N2) and influenza B are still circulating in Alaska, although it appears the seasonal influenza season is on the decline.
- Consider the diagnosis of swine influenza in any person with an acute febrile respiratory illness who:
 - Becomes ill within 7 days of travel to a community either within the United States or internationally where there are one or more confirmed swine influenza A (H1N1) cases, or
 - Resides in a community where there are one or more confirmed swine influenza cases, or
 - Becomes ill within 7 days of close contact with a person who is a confirmed case of swine influenza A (H1N1) virus infection.
- Clinical consultation is available through Alaska Section of Epidemiology at 907-269-8000 during usual business hours, or at 1-800-478-0084 after hours.

LABORATORY DIAGNOSIS OF SWINE INFLUENZA A (H1N1)*

Rapid diagnostic influenza A testing may be positive in swine influenza, however CDC has not made any recommendations yet regarding rapid tests. Rapid tests will not differentiate

between seasonal human A and swine A influenza. See guidelines from the Alaska Virology Laboratory at http://hss.state.ak.us/dph/labs/pdfs/SwineFlu_AKSample.pdf.

- Perform a rapid diagnostic influenza test, if available.
 - If the test is positive for influenza B, no further testing is needed.
 - If the test is positive for influenza A, and the patient has any of the exposure risk factors listed above, obtain a second nasopharyngeal swab or wash. Place the specimen in universal or viral transport media for viral culture at the Alaska State Virology Laboratory.
 - If the test is positive for influenza A (or A/B) BUT the patient does not have any of the exposure risk factors or is not being admitted to the hospital, then manage the patient as you would for a suspected case of seasonal influenza.
- If rapid testing is negative or is not available and the patient has risk factors for swine influenza, obtain a nasopharyngeal swab or wash. Place the specimen in universal or viral transport media for viral culture at the Alaska State Virology Laboratory.
- The Alaska State Virology Laboratory is located at 931 Sheenjek Drive, P.O. Box 60230, Fairbanks, AK 99706-0230.
- Testing supplies can be requested from the Alaska State Virology Laboratory at (907) 474-7017 or the Alaska State Public Health Laboratory – Anchorage at (907) 334-2100. Supplies are limited; however any commercial viral transport media can be used to collect specimens.

WHEN TO USE ANTIVIRAL DRUGS AND DOSING RECOMMENDATIONS*

Interim guidance for use of antiviral drugs for patients with confirmed or suspected swine influenza A (H1N1) virus infection and close contacts is available at: <http://www.cdc.gov/swineflu/recommendations.htm>.

The current strain of swine influenza A (H1N1) is sensitive to the neuraminidase inhibitor medications, zanamivir (Relenza®) and oseltamivir (Tamiflu®). It is resistant to the adamantine medications, amantadine and rimantadine. (In contrast, 98% of human influenza A (H1N1) viruses submitted during the 2008-09 season were resistant to oseltamivir, but were sensitive to zanamivir and the adamantine antiviral agents).

State-supplied oseltamivir and zanamivir should be used primarily for treating persons who are seriously ill H1N1 swine flu. **These antiviral drugs should be used for chemoprophylaxis only after consulting with the Alaska Section of Epidemiology.**

- Consider treating *confirmed*, *probable*, or *suspected* cases (defined below) of swine influenza with antiviral drugs. Dosing information for persons 12 months and older can be found in Table 1.
 - As with seasonal influenza, antiviral treatment may not be necessary for mild disease or for persons at low risk for serious sequelae of influenza.

- Because the 2008-09 seasonal influenza A (H1N1) viruses are resistant to oseltamivir, treatment of an ill person who meets the *suspected case* definition for swine flu should be performed with either zanamivir alone or with a combination of oseltamivir and either amantadine or rimantadine.
- Treatment of *confirmed* and *probable* cases should be performed with either oseltamivir or zamavir.
- The recommended duration of treatment is five days.
- Adverse reactions to antiviral medications should be reported to the following toll-free hotline number: 877-469-8067.

Table 1. Swine influenza antiviral medication dosing recommendations

Agent, group		Treatment	Chemoprophylaxis
Oseltamivir (Tamiflu®)			
Adults		75-mg capsule twice per day for 5 days	75-mg capsule once per day
Children (age, 12 months or older), weight:	15 kg or less	60 mg per day divided into 2 doses	30 mg once per day
	15–23 kg	90 mg per day divided into 2 doses	30 mg once per day
	24–40 kg	120 mg per day divided into 2 doses	60 mg once per day
	>40 kg	150 mg per day divided into 2 doses	75 mg once per day
Zanamivir (Relenza®)			
Adults		Two 5-mg inhalations (10 mg total) twice per day	Two 5-mg inhalations (10 mg total) once per day
Children		Two 5-mg inhalations (10 mg total) twice per day (age, 7 years or older)	Two 5-mg inhalations (10 mg total) once per day (age, 5 years or older)

(Table extracted from [IDSA guidelines for seasonal influenza linkPolicy linkPolicy.](#))

- Interim guidance regarding the use of antiviral medications in pregnant women is available at: http://www.cdc.gov/swineflu/clinician_pregnant.htm.
- Oseltamivir is not licensed for use in children less than 1 year of age. In addition, it is not known yet whether infants are at higher risk for complications due to swine influenza compared to older children and adults. However, because infants typically have high rates of morbidity and mortality from seasonal human influenza, infants with swine influenza may benefit from treatment with oseltamivir (Table 2). If oseltamivir is initiated in infants, providers should be aware of the lack of safety and dosing data, and carefully monitor infants for adverse events.

Table 2. Dosing recommendations for oseltamivir treatment of children aged <1 year

Age	Recommended treatment dose for 5 days
<3 months	12 mg twice daily
3-5 months	20 mg twice daily
6-11 months	25 mg twice daily

VACCINES

- The 2008-09 seasonal influenza vaccine is not expected to offer protection against swine influenza; however, seasonal influenza is still circulating in several regions of Alaska. For persons who were not previously vaccinated, inoculation with seasonal influenza vaccine will offer protection against these influenza strains. Vaccine is still available in many communities in Alaska.
- Pneumonia caused by *Streptococcus pneumoniae* infection is one of the most common causes of secondary bacterial infections following influenza illness, and is a major cause of morbidity and mortality during influenza epidemics. Health care providers should make sure that their patients are up-to-date on their pneumococcal vaccinations. Recommendations for Alaskans are available at the following weblinks:
 - Children: http://www.epi.alaska.gov/bulletins/docs/b2000_19.pdf
 - Adults: http://www.epi.hss.state.ak.us/bulletins/docs/b1994_10.htm

FACE MASKS AND RESPIRATORS*

Interim guidance regarding the use of facemasks and respirators is available at: <http://www.cdc.gov/swineflu/masks.htm>

INFECTION CONTROL*

- Interim guidelines for infection control in health care settings can be found at http://www.cdc.gov/swineflu/guidelines_infection_control.htm.
- Interim guidelines for infection control in the home setting can be found at http://www.cdc.gov/swineflu/guidance_homecare.htm.

CASE DEFINITIONS*

Interim case definitions for swine influenza A (H1N1) are available at: http://www.cdc.gov/swineflu/casedef_swineflu.htm.

A **confirmed case** of swine influenza A (H1N1) virus infection is defined as a person with an acute febrile respiratory illness with laboratory confirmed swine influenza A (H1N1) virus infection at CDC by one or more of the following tests:

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

A **probable case** of swine influenza A (H1N1) virus 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 swine influenza A (H1N1) virus 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 swine influenza A (H1N1) virus infection, or
- within 7 days of travel to community either within the United States or internationally where there are one or more confirmed swine influenza A (H1N1) cases, or
- resides in a community where there are one or more confirmed swine influenza cases.

*Note: Information provided in this document is all subject to change. Please continue to monitor CDC's Interim Guidance documents throughout the course of this epidemic for updated information.