



## **Novel H1N1 Influenza Update #6**

**May 19, 2009 - 3:00pm**

**Introduction: This document revises our last update that was sent on May 4, 2009. The most important revisions include the following:**

1. For the routine care of patients with suspected influenza, a **surgical mask** is the appropriate PPE for hospital personnel. An **N95 respirator** should be utilized in those circumstances where aerosolization of the virus may occur. (see guidelines below)
2. Routine testing (nasal pharyngeal swab) is **NOT recommended** or necessary for patients with mild influenza-like illness. Only patients with severe symptoms of an acute, febrile respiratory illness who require hospitalization should be tested.
3. **Pregnancy** is NOT a contraindication for the use of oseltamivir and zanamavir (see section VII for further recommendations)

### **Triage, Assessment, and Care of Patients Presenting with Respiratory Symptoms**

H1N1 (SO) virus does not appear to be causing unusual morbidity or mortality compared to seasonal influenza; therefore infection control measures for this virus will be similar to those taken for seasonal influenza. Clinicians are urged to continue their normal practice and apply sound clinical judgment on the approach of each individual patient.

#### **I. Patient Treatment Guidelines (presentation from triage and during Emergency Department care)**

All patients presenting with flu like symptoms such as fever ( $> 100^{\circ}\text{F}$  or  $\geq 37.8^{\circ}\text{C}$ ) **PLUS** cough or sore throat or rhinorrhea or nasal congestion should be managed as follows:

1. Patient and family members are placed in a single room (preferable) or asked to remain 3-6 feet away from other people.
2. **Personal Protective Equipment (PPEs)** Include:
  - A. Patient:  
The patient should wear a surgical mask and be placed on Standard and Droplet Precautions
  - B. Personnel:
    - Surgical mask**  
Health care personnel wear a **surgical mask** when within 3-6 feet of the patient
    - N95 respirator**  
If health care personnel are performing a procedure with aerosolation (i.e. bronchoscopy, intubation, extubation, and deep open tracheal suctioning) the individual should perform the procedure in an airborne isolation room and wear an **N95 respirator** plus other barriers such as a gown, gloves, and eye protection.
    - Disposal**  
Discard PPEs in a clear bag waste receptacle, unless saturated with blood and/or body fluid, then it is discarded in a red bag.
  - C. Patient/Visitors following initial evaluation:  
The patient should wear a surgical mask when outside of the patient room, and should be encouraged to wash hands frequently and follow respiratory hygiene practices. All visitors should also wear a surgical mask if within 3-6 feet of the patient.

## II. Surveillance Definitions:

- A **confirmed case** of H1N1 (SO) infection is defined as a person with an acute febrile respiratory illness with laboratory confirmed H1N1 (SO) infection at CDC by one or more of the following tests:
  - real-time RT-PCR, or
  - viral culture (currently only performed at the Centers for Disease Control and Prevention)
- A **probable case** of H1N1 (SO) 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 H1N1 (SO) infection is defined as a person with a fever > 100°F or >/=37.8°C cough or sore throat.

**NOTE:** Patients with an acute febrile respiratory illness who have a negative PCR test for influenza A can be considered non-cases of H1N1 (SO).

**NOTE:** Cases will be reported to the local Department Of Health by the on-site Nurse Epidemiologist/Infection Control and laboratory results are reported by the Laboratory.

## III. Clinical evaluation

### A. Testing for Influenza (nasal pharyngeal swab)

***\*\*Routine testing is not recommended for patients with mild influenza-like illness. As summarized below, only patients with severe symptoms of an acute, febrile respiratory illness, who are admitted to the hospital require testing. Testing may be considered for patients who are at high risk for complications of influenza. (see definition of 'High-risk groups' below)***

1. Patients who have mild /moderate symptoms who are otherwise well need prompt physician evaluation to assess for rapid discharge. Most patients in this category require no diagnostic testing – just rapid assessment and discharge (with appropriate discharge instructions). These patients should NOT have a viral swab performed.
2. Patients who have mild /moderate symptoms (and within the first 48 hours of onset of symptoms and not getting better) and who have comorbid conditions (see below) should be **treated**. The clinician may consider obtaining a nasal pharyngeal swab for these patients depending upon their underlying condition / clinical judgment.
3. Patients with severe symptoms should be **swabbed and treated**. This also includes all hospitalized patients with suspected Swine Influenza, as well as any hospitalized patient with severe febrile unexplained respiratory illness (including ARDS, pneumonia or respiratory distress) pending testing for Swine Influenza.

**NOTE: High-risk groups:** A person who is at high-risk for complications of novel influenza (H1N1) virus infection is defined as the same for seasonal influenza at this time. As more epidemiologic and clinical data become available, these risk groups might be revised.

- Children younger than 5 years old. The risk for severe complications from seasonal influenza is highest among children younger than 2 years old.
  - Adults 65 years of age and older. Persons with the following conditions:
  - Chronic pulmonary (including asthma), cardiovascular (except hypertension), renal, hepatic, hematological (including sickle cell disease), neurologic, neuromuscular, or metabolic disorders (including diabetes mellitus);
  - Immunosuppression, including that caused by medications or by HIV;
    - Pregnant women;
    - Persons younger than 19 years of age who are receiving long-term aspirin therapy;
    - Residents of nursing homes and other chronic-care facilities.
4. **Reminder:** Health care providers should vaccinate their patients with the pneumococcal vaccination, particularly since super-infection with *Streptococcus pneumoniae* has been shown to cause additional morbidity and mortality in patients with influenza.

## IV. Prophylaxis

1. For patients with **probable or confirmed Swine Influenza**, prophylaxis should be offered to any household members and close contacts that have a comorbid condition as listed above. Anti-viral medication should be prescribed for ten (10) days.
2. **Patients who are admitted** should be preferentially admitted to:
  - a. A private room on Contact and Droplet Precautions. The PPE include a surgical mask plus other barriers such as a gown, gloves, and eye protection to prevent exposure, this is dependent on the procedure or task being performed.
  - b. When a patient will have aerosol generating procedures (bronchoscopy, intubation, extubation, and deep open tracheal suctioning) the patient should have the procedure performed in an airborne infection isolation room (AIIR). If an AIIR is not available, use clinical judgment to decide whether the procedure can be performed in a private room with the door closed. PPEs include an N95 respirator.
  - c. Nebulization procedures for febrile patients should be done in a private room with the door closed; if a private room is not available there should be 6 feet between patients.
  - d. While in the hospital, isolation precautions should be continued for seven (7) days from symptom onset or until 24 hours after the resolution of symptoms, whichever is longer.

#### V. Discharge of Patients:

##### **For all patients discharged home, the following should be communicated:**

1. Stay at home for 24 hours after their symptoms resolve.
2. Cover your cough with a tissue, perform hand washing (patient and family) and avoid contact with high risk household contacts.
3. Low risk contacts should seek assistance from their primary provider if they develop symptoms.
4. Patients should seek medical attention if short of breath, fever persisting beyond 72 hours or relapsing fever, signs of dehydration, mental status changes.

#### VI. Employees:

Refer to the "Employee Health Services *Guidance Document*"

#### VII. Antiviral Therapy

Either oral oseltamivir (Tamiflu) pills or suspension or zanamivir (Relenza) oral inhalation are acceptable for either treatment or prophylaxis (Source – CDC at website <http://www.cdc.gov/h1n1flu/recommendations.htm#>):

##### **Special Considerations for Pregnant Women –**

- Oseltamivir and Zanamavir are Category C agents for use in pregnancy. However, pregnancy also places women at high risk for complications due to influenza. Pregnancy is NOT a contraindication for use of oseltamivir and zanamavir.
- Pregnant women who meet the current case-definition for confirmed or probable Novel H1N1 influenza infection should receive antiviral treatment.
- Recommendations for the use of antiviral medications in pregnant women may change as additional data on the benefits and risks of antiviral therapy in pregnant women become more available. For more information, see the CDC website at: [http://www.cdc.gov/h1n1flu/clinician\\_pregnant.htm](http://www.cdc.gov/h1n1flu/clinician_pregnant.htm)

<b>Antiviral medication dosing recommendations for treatment or chemoprophylaxis of novel influenza A (H1N1) infection</b>			
<b>Agent, group</b>	<b>Treatment</b>	<b>Chemoprophylaxis</b>	
<b>Oseltamivir (Tamiflu)</b>			
<b>Adults</b>	75-mg capsule twice per day for 5 days	75-mg capsule once per day for 10 days	
<b>Children (age 12 months or older) by weight</b>	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	45 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
<b>Zanamivir (Relenza)</b>			
<b>Adults</b>	Two 5-mg inhalations (10 mg total) twice per day	Two 5-mg inhalations (10 mg total) once per day	
<b>Children</b>	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)	
<b>Dosing recommendations for antiviral treatment of children younger than 1 year using oseltamivir (Tamiflu)</b>			
<b>Age</b>	<b>Recommended treatment dose for 5 days</b>		
<3 months	12 mg twice daily		
3-5 months	20 mg twice daily		
6-11 months	25 mg twice daily		
<b>Dosing recommendations for antiviral chemoprophylaxis of children younger than 1 year using oseltamivir</b>			
<b>Age</b>	<b>Recommended prophylaxis dose for 10 days</b>		
<3 months	Not recommended unless situation judged critical due to limited data on use in this age group		
3-5 months	20 mg once daily		
6-11 months	25 mg once daily		