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Infection with the novel 2009 influenza A (H1N1) virus: situation update and clinical recommendations

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With this document we are providing some information about the current status of infections with novel 2009 influenza A (H1N1) virus (sometimes known as swine influenza), and recommendations to clinicians for diagnosis and treatment.

Currently, almost all influenza-like illness that you see in your practice is likely to be due to the novel 2009 influenza A (H1N1) virus. For those for whom it is indicated, treatment with oseltamivir or zanamivir should be started early based on a clinical diagnosis of influenza, unless there is a contraindication, and should NOT wait for laboratory confirmation. This includes pregnant women.

Close to 100% of infections due to this virus are sensitive to oseltamivir and zanamivir.

Almost all cases of influenza due to the novel virus have been in people under age 60. Deaths rates are highest in those aged 40 to 60 years. Please especially consider early treatment in people in this age range with influenza-like illness and indications for treatment.

The majority of Florida residents who have died have had known risk factors for adverse outcomes from influenza. CDC and the Florida Department of Health recommend early treatment with oseltamivir or zanamivir for those with confirmed, probable, or suspected infection with the novel 2009 influenza A (H1N1) virus who are ill enough to be hospitalized or have risk factors for severe outcomes, including pregnancy.

Please report to your County Health Department any life-threatening illnesses or deaths due to this virus, and any outbreaks you become aware of.

As of July 21, 2009, we have had almost 3,000 confirmed cases of infection with the novel 2009 influenza A (H1N1) virus. There have been 331 known hospitalizations and 22 deaths among these people. CDC estimates that there have been over one million infections with this virus in the United States so far. Florida's share of these million infections would be about 60,000 infections, so we believe that most people infected with this virus are not being tested specifically for it.

In the Florida Bureau of Laboratories, several hundred positive RT-PCR tests for the novel virus have been documented each week since late May, 2009. In recent weeks, the percentage of specimens submitted for influenza testing that is positive for influenza has risen from about 50% to about 80%. This percentage is probably so high because other viruses that can cause an influenza-like illness syndrome are not circulating during the summer months. Among those with positive influenza tests, in recent weeks over 98% have been positive for the novel 2009 influenza A (H1N1) virus. **Currently, almost all influenza-like illness that you see in your practice is likely to be due to the novel 2009 influenza A (H1N1) virus.**

Rapid bedside tests for Influenza A have varying sensitivity and specificity. Both false positive and false negative results may occur. Treatment should be based on clinical diagnosis. CDC guidance on the use of 'rapid flu tests' is available at http://www.cdc.gov/h1n1flu/guidance/rapid_testing.htm. Treatment should not be delayed because of a negative rapid test if the person has clinical influenza.

Florida residents with infection with this virus have been almost entirely children, adolescents and younger adults. The almost total absence of cases in people over the age of 60 is very striking. This probably reflects some long-lasting immunity in older adults who were exposed to flu viruses circulating before the Asian flu pandemic of 1957. **Deaths rates are highest in those aged 40 to 60 years.**

CDC's recommendations for antiviral treatment, which Florida endorses, are two-pronged: early treatment with oseltamivir or zanamivir is recommended for those with **confirmed, probable, or suspected infection with the novel 2009 influenza A (H1N1) virus who are ill enough to be hospitalized or are at high risk for complications.** No antiviral treatment is recommended for those not meeting these criteria. CDC's detailed recommendations for treatment can be found at www.cdc.gov/h1n1flu.

People at high-risk for complications of novel influenza (H1N1) virus infection include:

1. Children younger than 5 years old.
2. Adults 65 years of age and older.
3. 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;
 - Pregnancy;
 - Persons younger than 19 years of age who are receiving long-term aspirin therapy;
 - Residents of nursing homes and other chronic-care facilities.

Examples of recent fatal cases in Florida include:

- a 55-year-old man with end-stage renal disease and congestive heart failure
- a 30-year-old pregnant woman with asthma and obesity
- a 55-year-old man with diabetes and COPD
- a 55-year-old man with multiple sclerosis and heart disease.
- a 46-year-old woman with diabetes
- a 63-year old man with HIV, chronic kidney disease, hypertension, and colitis

Many of the people who died had complicated medical histories, and the novel 2009 influenza A (H1N1) virus might not be the final underlying cause of death in all these deaths.

For more information, contact your County Health Department, consult the Florida Department of Health web site at www.doh.state.fl.us, or contact the Bureau of Epidemiology at 850-245-4401