



# THE CITY OF NEW YORK

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

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## 2009 New York City Department of Health and Mental Hygiene Health Alert #19: Novel H1N1 Influenza Update May 21, 2009

Please distribute to staff in the Departments of Critical Care, Emergency Medicine, Family Practice, Geriatrics, Internal Medicine, Infectious Disease, Infection Control, Pediatrics, Pharmacy, Neonatal Units, Obstetrics and Gynecology, Pulmonary Medicine and Laboratory Medicine

Novel H1N1 influenza is now widespread in New York City. As expected, since there are more persons infected, hospitalized and critically ill cases are also increasing. Patients presenting with influenza-like illness in New York City health care facilities at this time can be presumed to have novel H1N1 infection, as we are seeing very little seasonal influenza A H3N2. An epidemiologic summary is provided below. Because it is not possible to prevent community transmission of influenza and mild illness at this time, the Health Department is focusing its efforts on reducing and preventing severe outcomes due to infection with novel H1N1 influenza.

### Contents of this Alert:

- Epidemiologic Update
- Updated guidance on antiviral treatment
  - Providers should prioritize **EARLY ANTIVIRAL** treatment for patients who:
    - Are being hospitalized with acute febrile respiratory illness (fever and influenza-like illness (ILI), pneumonia, ARDS, or respiratory distress), or
    - Have underlying health conditions (see Table) and present with mild ILI,
  - Prescription of antiviral therapy does not necessarily require an office visit and can be called in to the pharmacy.
- Revised reporting requirements for suspected hospitalized cases of novel H1N1 influenza:
  - Report:
    - Hospitalized patients with acute febrile respiratory illness (fever and ILI, pneumonia, ARDS, or respiratory distress) who **ALSO** have a positive test for influenza A (by EIA, DFA, PCR or viral culture)
    - Any critically ill person with acute respiratory illness for whom there is a strong suspicion of influenza, including when rapid testing for influenza is negative or not available
- Updated guidance on antiviral prophylaxis
- Guidance on prevention of nosocomial transmission of novel H1N1 influenza

These recommendations are subject to change as more information on the clinical and epidemiologic features of influenza A H1N1 becomes available. Providers should continue to check the DOHMH Novel H1N1 Influenza webpage at <http://www.nyc.gov/html/doh/html/cd/cd-h1n1flu.shtml> for updated information and recommendations.

#### **Categories of urgency levels for NYC DOHMH Broadcast Notification System:**

**Health Alert:** conveys the highest level of importance; warrants immediate action or attention

**Health Advisory:** provides important information for a specific incident or situation; may not require immediate action

**Health Update:** provides updated information regarding an incident or situation; unlikely to require immediate action

## **Epidemiologic Update**

Increasing evidence points to widespread community transmission of novel H1N1 influenza in New York City at this time. Syndromic surveillance shows dramatic increases in school-aged patients with ILI presenting to hospital emergency departments, especially in Queens but also in communities throughout New York City. Hospitalized and critically ill cases are also rising, with a total of 57 confirmed cases having been hospitalized, as of today's date, 6 of whom have required mechanical ventilation. Forty (70%) of the hospitalized cases are under 18 years of age, reflecting the current epidemiology of this outbreak; only 1 hospitalized case is aged 65 and older. Thirty-six (63%) cases had underlying medical conditions. Twenty (35% of all patients) had asthma noted as an underlying condition. One death in New York City has been attributed to novel H1N1 influenza.

As of May 21, 2009, diagnostic testing has identified 240 confirmed cases of novel H1N1 influenza among New York City residents, including the seriously ill patients mentioned above. Although most of the initially confirmed cases were related to the outbreak at St. Francis Preparatory School, DOHMH surveillance is now focusing on hospitalized cases. The vast majority of cases of novel H1N1 influenza in the community are still mild and remain non-laboratory-confirmed because they are not being tested. The number of confirmed cases therefore is likely to substantially underestimate the number of infected people in the City. Confirmed cases of novel H1N1 influenza have also been identified at the Rikers Island detention facility, although widespread transmission within the correctional facility has not been documented.

Since last week, there has been a significant increase in ILI among school-age children. Many schools in New York City have experienced clusters of ILI, and there has been an increase in school closures, with more than 25 schools (cumulative) closed as of this update. Individual schools that demonstrate a sustained or sudden increase in ILI cases presenting at the school nurse office are being closed for one week in order to lower transmission rates and protect individuals in the school community, particularly persons with underlying health conditions who are at higher risk for severe illness.

DOHMH receives data daily on emergency department (ED) visits from 50 hospitals across the city and scans for fever, cough, sore throat, and 'influenza'. These data show an increase in visits from May 14<sup>th</sup> to the 19<sup>th</sup>, representing a more than 10-fold increase compared to the weeks before the outbreak. The most dramatic increase was seen initially in Queens among persons aged 5-17 years. Increases are now also being observed in Brooklyn, the Bronx, and, to a lesser extent, Manhattan, and are also occurring in children under 5 and adults ages 18-64, although these increases are less marked than those in school aged children. It is likely that increases in ED visits due to ILI are due at least in part to worried or mildly ill individuals seeking care from emergency departments.

Notably, emergency department syndromic data do not show increases in ILI visits in persons over 65, and no outbreaks in long-term care facilities for the elderly have been reported to date. For updated information on the novel influenza H1N1 outbreak in the United States and globally, see the CDC website at [www.cdc.gov/swineflu](http://www.cdc.gov/swineflu) and the World Health Organization website at <http://www.who.int/csr/disease/swineflu/en/index.html>.

## **Reporting Requirements for Hospitalized Cases of Acute Febrile Respiratory Illness**

Early analysis of data suggests that, as with seasonal influenza, the rapid antigen test for influenza (EIA) is not sensitive for the detection of novel H1N1 influenza. ALL hospitalized patients with acute febrile respiratory illness (documented fever >100.4° F or 38.0 C° AND ILI, ARDS, pneumonia or respiratory distress) should be assumed to have influenza and treated empirically with antiviral therapy until proven

otherwise. Due to the insensitivity of the rapid antigen test, and the need to document the number of critically ill cases, DOHMH has broadened its reporting criteria to include critically ill patients for whom influenza is suspected but for whom rapid testing was either negative or not able to be done.

**Patients meeting the following criteria should be reported immediately to the Provider Access Line at 1-866-NYC-DOH1 (1-866-692-3641):**

- All patients being admitted or currently hospitalized with acute febrile respiratory illness, including fever >100.4° F or 38.0 C° AND ILI, ARDS, pneumonia or respiratory distress who test positive for influenza A.
- Critically ill hospitalized patients (e.g., on a ventilator) with acute respiratory symptoms in whom there is a strong suspicion for influenza, regardless of influenza A results.
- Patients from congregate facilities such as shelters, correctional facilities, residential treatment centers or long-term care facilities who are admitted to the hospital with acute febrile respiratory illness.
- DOHMH also asks medical providers to consider the diagnosis of novel H1N1 influenza in any fatal cases of unexplained acute febrile respiratory illness, regardless of age, and to refer such cases immediately to the NYC Office of the Chief Medical Examiner (OCME) at 1-212-447-2030.

Clusters of three or more patients with ILI in a medical or long-term care facility, homeless shelter, prison or other congregate living facility should also be reported to the Provider Access Line.

Specific diagnostic testing for novel H1N1 influenza will be performed at the New York City DOHMH Public Health Laboratory (PHL) **ONLY FOR CASES APPROVED BY DOHMH FOR TESTING**. Reports should be made to the Provider Access Line, and our staff will take initial information and advise whether testing is indicated. DOHMH will provide instructions on specimen submission and will arrange for transportation of the specimen to the PHL. Results will be reported verbally to the reporting physician IF the patient is still hospitalized when the result is available (usually 1-2 days after arrival at PHL), or to the hospital laboratory if the patient has been discharged. A hard copy of the result will be sent to the hospital by PHL at a later date.

**Guidance on Antiviral Treatment for Novel H1N1 Influenza**

DOHMH is asking medical providers to prioritize the early initiation of antiviral treatment with oseltamivir or zanamavir, ideally within 48 hours of onset, for patients with severe illness or those with underlying health conditions (see Table) who present with mild ILI. However, providers should discourage any person with mild ILI from seeking care in an emergency department unless they are seriously ill. Antiviral medication for outpatients with ILI and underlying health conditions can be prescribed over the phone if the patient does not report severe symptoms.

**Early antiviral treatment with oseltamivir (Tamiflu) or zanamavir (Relenza) is strongly recommended for:**

- All hospitalized patients with influenza, including confirmed or probable novel H1N1 influenza
- All hospitalized patients with acute febrile respiratory illness, pending definitive testing for influenza (RT-PCR or viral culture). (A negative RT-PCR essentially rules out influenza and justifies the discontinuation of antiviral therapy).
- Persons with less severe illness who are being treated as outpatients with ILI and who are at high risk for complications of influenza (See Table).

Efforts should be made to initiate antiviral therapy within 48 hours of symptom onset. However, treatment at later points during the course of illness may also be effective, and are now authorized by the

United States Food and Drug Administration (FDA) under an Emergency Use Authorization (see <http://www.cdc.gov/h1n1flu/eua/>).

For detailed information on antiviral dosing, precautions and adverse effects, see the NYC DOHMH website at <http://www.nyc.gov/html/doh/html/cd/cd-h1n1flu.shtml>.

**Early antiviral treatment with oseltamivir (Tamiflu) or zanamavir (Relenza) is strongly recommended for:**

- All hospitalized patients with influenza, including confirmed or probable novel H1N1 influenza
- All hospitalized patients with acute febrile respiratory illness, pending definitive testing for influenza (RT-PCR or viral culture). (A negative RT-PCR essentially rules out influenza and justifies the discontinuation of antiviral therapy).
- Persons with ILI who are being treated as outpatients and who are at high risk for complications of influenza (See Table). In particular, clinicians should bear in mind that children with asthma are at risk for complications due to influenza and that asthma is the most prevalent chronic health condition among children.

Efforts should be made to initiate antiviral therapy within 48 hours of symptom onset. However, treatment at later points during the course of illness may also be effective, and are now authorized by the United States Food and Drug Administration (FDA) under an Emergency Use Authorization (see <http://www.cdc.gov/h1n1flu/eua/>).

For detailed information on antiviral dosing, precautions and adverse effects, see the NYC DOHMH website at <http://www.nyc.gov/html/doh/html/cd/cd-h1n1flu.shtml>.

**Revised Guidance on Antiviral Prophylaxis for Novel H1N1 Influenza**

Post-exposure antiviral chemoprophylaxis with either oseltamivir or zanamivir should be considered for persons who have underlying conditions placing them at high risk for complications of influenza (See Table) who have household or other close contact with a person with ILI during the infectious period (one day before to 7 days after illness onset).

Children and staff with underlying conditions placing them at high risk for complications from influenza (See Table) who attend or work at a school that has been closed due to high or increasing rates of ILI should also be considered for prophylaxis (due to the assumption that in these schools high levels of transmission of novel H1N1 influenza have been occurring and children may not know or be able to report accurately whether or not they had close contact with an infectious person). Providers should bear in mind that people with asthma are at high risk for complications due to influenza, and that asthma is the most prevalent chronic illness among children. For a complete list of closed schools, see the Department of Education website at [www.schools.nyc.gov](http://www.schools.nyc.gov).

Prophylaxis should also be considered for health care workers who have underlying conditions placing them at high risk for complications from influenza if they have a recognized breach in personal protective equipment while providing direct care to a patient with ILI during the patient's infectious period.

**Preventing Nosocomial Transmission of Novel H1N1 Influenza in Hospitals**

To reduce the possibility of nosocomial spread of novel H1N1 influenza, DOHMH recommends that hospitals:

- Ensure that health care workers do not come to work while ill,

- Conduct aggressive surveillance for nosocomial ILI and report suspected cases immediately to DOHMH,
- Ensure that health care workers observe infection control precautions as recommended and use PPE appropriately,
- Track employee absenteeism targeting especially those health care workers who perform direct patient care
- Advise any health care workers with underlying health conditions placing them at high risk for complications from influenza that they should call their medical provider right away if they develop symptoms of ILI. Early antiviral treatment is strongly recommended for these individuals.

Hospitals should refer to their own policies regarding the use of prophylaxis for other health care workers (those who do not have underlying health conditions) who have had household or other close contact with a person with ILI.

Recommendations on infection control are unchanged. See Health Alert #16 at <http://www.nyc.gov/html/doh/downloads/pdf/cd/2009/09md16.pdf>.

As always, we greatly appreciate the cooperation of the medical community in New York City in addressing this outbreak and will update you with further information when it becomes available.

Sincerely,

**The Novel H1N1 Influenza Investigation Team  
New York City Department of Health and Mental Hygiene**

**Table: Underlying Health Conditions that Increase the Risk for Severe Complications due to Influenza Infection**

- Age > 65 years
- Age < 2 years
- Chronic pulmonary disease, such as asthma and COPD
- Chronic cardiovascular, renal, and hepatic disease
- Hematologic disease, such as sickle cell anemia
- Metabolic disorders, such as diabetes
- Immunosuppression, including HIV-related or caused by medication
- Compromised respiratory function, likely including obesity, and conditions which increase the risk for aspiration
- Persons with neuromuscular disorders, seizure disorders, or cognitive dysfunction that may compromise the handling of respiratory secretions
- Pregnancy
- Persons requiring long-term aspirin therapy for diseases such as rheumatoid arthritis or Kawasaki disease