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 #21: Novel H1N1 Influenza Update
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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 continues to be widespread in New York City. As expected, since there are more persons infected, we continue to identify hospitalized and critically ill cases. Patients presenting with influenza-like illness (ILI) in New York City health care facilities at this time can be presumed to have novel H1N1 influenza, as we are seeing little seasonal influenza. Because our ability to prevent community transmission of influenza and mild illness is limited at this time, the Health Department is focusing its efforts on reducing and preventing severe outcomes due to infection with novel H1N1 influenza.

Since novel H1N1 influenza is a newly emerged virus, its clinical and epidemiologic features continue to be monitored by DOHMH. These recommendations are therefore subject to change as new information becomes available. Other public health agencies are similarly monitoring the situation and issuing interim guidance documents which are being updated and adapted to local circumstances. Some DOHMH recommendations, and those of other state and local health departments, differ from those issued by the US Centers for Disease Control and Prevention (see http://www.cdc.gov/h1n1flu/guidance/). 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 local information and recommendations.

Contents of this Alert:

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

reported as a suspect case and even if the patient had already been confirmed as H1N1 by the Public Health Laboratory.

- **Update on Antiviral Medication Availability**

Epidemiologic Update

Multiple data sources indicate continuing widespread community transmission of novel H1N1 influenza in New York City. Emergency Departments across New York City reported extremely high numbers of visits for influenza-like illness during the week beginning May 19th. Numbers of reported visits have declined from a peak on May 25, 2009 but are still far higher than baseline for this time of the year. Many of the patients seeking care at EDs are reported to be mildly ill patients or worried well, and have been reported to be seeking H1N1 testing, notes to allow return to school or work, or antiviral medication. Medical providers should discourage mildly ill patients from going to an ED. Antiviral medication can be prescribed over the phone for those who have mild illness and for whom antiviral therapy is recommended based on their underlying risk for severe complications due to influenza. Diagnostic testing for novel H1N1 influenza is NOT available at the NYC Public Health Laboratory for mildly ill patients, including for those who visit EDs. Doctors notes and negative influenza tests are NOT required for return to New York City public schools and should not be required by employers.

The cumulative number of hospitalized and critically ill cases with confirmed novel H1N1 influenza continues to rise, with a total of 341 confirmed cases having been hospitalized as of June 2, 2009, 28 (8%) of whom have required mechanical ventilation. Of the hospitalized cases, almost half are under 18 years of age, with a median age of 19 years. However, the proportion of hospitalized cases that are young has decreased from two weeks ago, from 70% to 48%, reflecting a broadening of this outbreak to more adults. 19% of hospitalized patients have been under age 5 and 66% under age 50. Only 3% have been aged 65 or older. Residents of all five boroughs have been hospitalized in New York City with confirmed novel H1N1 influenza, most frequently Brooklyn (31%), Queens (30%), and the Bronx (25%), followed by Manhattan (11%), Staten Island (1%), and non-NYC residents (2%).

Preliminary clinical data from the initial provider reports of 152 of the 341 hospitalized patients with confirmed novel H1N1 influenza show that many cases (82%) had at least one known risk factor for severe influenza or complications due to influenza (see Table); more detailed analysis of data from medical chart reviews on the initial 100 cases is still pending and will be provided in a future Health Alert update. The most common risk factor was asthma, noted in 41% of confirmed hospitalized cases. Other common risk factors were age less than 2 years (18%), immunosuppression, including HIV or medication-related conditions (13%), and cardiovascular disease (12%). Among 37 women of childbearing age who were hospitalized for novel H1N1 infection, 14 (38%) were pregnant.

Seven deaths in New York City have been attributed to novel H1N1 influenza. All deaths occurred in patients under 65 years of age – the median age was 43 years and the youngest was less than two years of age. Emergency department syndromic data do not show increases in ILI visits in persons over 65, and only one sporadic confirmed case in a long-term care facility for the elderly has been reported in New York City to date.

The most common symptoms among hospitalized cases have been fever (91%), and cough (82%). Less common are runny nose (40%), difficulty breathing or shortness of breath (34%), muscle aches (33%), and sore throat (25%). 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.

Seasonal influenza is still circulating. However the majority of influenza now in New York City is novel H1N1. Among the 287 positive influenza A specimens subtyped at the NYC Public Health Laboratory between May 17 and May 31, 2009, 89% were novel H1N1 and the remaining 11% were either seasonal influenza A (H3 or H1) or influenza B.

For updated information on the novel influenza H1N1 outbreak in the United States and globally, see the CDC website at 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

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 presumed to have influenza and treated empirically with antiviral therapy until proven otherwise.

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 of influenza, regardless of influenza A results.
- Inpatients or residents of long-term care facilities with suspected nosocomial influenza (i.e., patients who develop ILI or acute febrile illness [ARDS, pneumonia or respiratory distress]) more than 48 hours after admission to a hospital or long-term care facility.
- 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.

If hospitals have more than one hospitalized case to report in a day, reports may be batched, but we ask that you do not wait more than one day to report cases meeting the criteria listed above. 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. Due to the high volume of hospitalized cases being reported, DOHMH can no longer report test results verbally by telephone to the reporting physicians. Test results will be mailed to the hospital on the same day as the reports are available by the PHL. Providers should treat empirically and manage the patient presuming infection with novel H1N1 influenza until laboratory results are available.

Surveillance for Fatal Cases of Novel H1N1 Influenza, and Criteria for Referral to the New York City Office of the Chief Medical Examiner (OCME)

All fatal cases meeting the criteria listed here should be referred to the OCME for autopsy and pathologic examination. For cases that are not confirmed to be due to novel H1N1 influenza prior to death, diagnostic specimens will be sent to PHL and prioritized for testing. For all cases confirmed to have

H1N1 infection, tissues will be collected and sent to CDC for additional analysis by immunohistochemical staining and PCR testing. As per routine, the following cases are reportable to the OCME:

- Pediatric death with clinically compatible illness in which there is a positive influenza test
- Sudden pediatric death from unknown cause, but thought to be due to natural cause
- Pediatric death from unknown, febrile respiratory illness

In the current setting of the novel H1N1 influenza virus, the following additional cases should be referred to the OCME:

- All unexplained deaths involving febrile respiratory illness
- All deaths among persons confirmed to have novel H1N1 influenza virus

Providers should immediately notify DOHMH of any fatalities that occur in patients diagnosed with novel H1N1 influenza, even if previously reported as a suspected case. Call the Provider Access Line at 1-866-NYC-DOH1 (1-866-692-3641) to report these deaths.

Update on Antiviral Medication Availability

DOHMH is working with facilities and pharmacies to track antiviral medication availability.

- Hospitals are not reporting any problems obtaining antiviral medications.
- There are ample supplies of antiviral medication available, particularly of the 75 mg Tamiflu® capsules.
- Wholesale suppliers of antiviral medications report plentiful supply.
- Spot shortages have been reported. If your patients are having trouble filling a prescription, they should check with other pharmacies in their neighborhood, particularly the large chain pharmacies.
- There is lesser availability of other dosages, but many pharmacies can compound capsules into pediatric doses and suspension if needed (instructions are available in the package insert).

Previously issued guidance on diagnostic testing for influenza, antiviral therapy and chemoprophylaxis, and prevention of nosocomial transmission, has not changed. See http://www.nyc.gov/html/doh/html/cd/cd-h1n1flu-hcp.shtml.

Recommendations on infection control are also unchanged. See Health Alert #16 at http://www.nyc.gov/html/doh/downloads/pdf/cd/2009/09md16.pdf. As noted above, DOHMH infection control guidance differs from CDC guidance. However, it is consistent with guidance from the New York State Department of Health, as well as other state and local health departments.

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 under 18 years of age requiring long-term aspirin therapy for diseases such as rheumatoid arthritis or Kawasaki disease (due to risk of Reye's syndrome)