Influenza activity is increasing in New York City. The Health Department reminds NYC clinicians that it is not too late to administer influenza vaccine and that antiviral medications should be used for influenza treatment and prophylaxis. During the past surveillance week, 3.4% of outpatient visits were for influenza-like illness (ILI), and the percentage of specimens testing positive for influenza increased from 7% to 13%. During the current influenza season, most influenza in the United States has been caused by influenza A (H3N2) viruses; cases of influenza A (H1N1) and influenza B have also been reported. During past seasons when influenza A (H3N2) viruses have predominated, higher overall and age-specific hospitalization rates and increased mortality have been observed, especially among older people, very young children, and persons with certain chronic medical conditions compared with seasons during which influenza A (H1N1) or influenza B viruses have predominated.

During the current influenza season, over two-thirds of influenza A (H3N2) isolates have been antigenically different (drifted) from the H3N2 virus included in this year’s vaccine. In past seasons during which predominantly circulating influenza viruses have been antigenically drifted, decreased vaccine effectiveness has been observed. Nevertheless, vaccination provides some protection against drifted viruses, possibly reducing the incidence of hospitalization and death. In addition, vaccination protects against other circulating influenza strains that have been identified and are included in the vaccine [such as influenza A (H1N1) and B viruses]. It is still too early to determine which viruses will predominate throughout the current season, and different viruses may predominate at different times during the season. Weekly updates on current New York City influenza activity may be found at [http://www.nyc.gov/html/doh/flu/html/data/data.shtml](http://www.nyc.gov/html/doh/flu/html/data/data.shtml).

**Influenza Vaccine Recommendations and Supply**

Annual influenza vaccination is recommended for all persons aged 6 months and older. Anyone who has not yet been vaccinated this season should get an influenza vaccine now. In some populations, influenza vaccination is particularly important. The following groups should be vaccinated because of an increased risk of influenza-associated complications: pregnant women, young children 6 to 59 months of age, persons aged 65 years and older, and persons with certain chronic medical conditions such as diabetes, heart disease, and asthma.
50 years of age and older, persons with underlying health conditions, people with body mass index >40 kg/m², and residents of long-term care facilities. The following groups should be vaccinated because of the risk of acquiring and transmitting influenza to others: all healthcare personnel and household contacts and caregivers of persons with underlying medical conditions, adults 50 years and older, and children <5 years of age, especially those younger than 6 months.

Several different influenza vaccine formulations are available from manufacturers and distributors (see http://www.cdc.gov/flu/protect/vaccine/vaccines.htm for a complete list). Inactivated influenza vaccines are available as either trivalent (protecting against two influenza A strains and 1 influenza B strain) or quadrivalent (protecting against an additional influenza B strain) formulations. All live-attenuated influenza vaccine is quadrivalent. In addition, recombinant and cell-based formulations are available, both of which are inactivated trivalent vaccines. The recombinant formulation does not use any egg protein in its production and may be used in patients aged 18 years and older with history of a severe egg allergy. Intradermal and high-dose trivalent inactivated influenza vaccine formulations continue to be available. Consider use of high-dose vaccine in patients aged 65 years and older. Clinical trials have indicated this product is 24% more effective in preventing influenza disease in older adults compared to standard dose vaccine.

Influenza vaccine coverage levels in NYC are far below the Healthy People 2020 Goals for all age groups (http://www.nyc.gov/html/doh/downloads/pdf/epi/databrief38.pdf). Clinicians play a critical public health role by ensuring that all their patients receive an annual influenza vaccine. A recommendation from a clinician is the most important factor in determining whether someone is vaccinated. Evidence-based strategies to increase coverage should be employed, such as using non-patient specific standing orders, sending reminders, or calling patients.

If you need more vaccine, influenza vaccine is still available for purchase. For a list of available products and where to purchase to them, visit http://www.preventinfluenza.org/ivats/ivats_healthcare.asp. Pediatricians enrolled in the Vaccines for Children (VFC) program who need to order additional vaccine or have questions about their influenza vaccine order, can visit www.nyc.gov/health/cir and log on to the Online Registry to place or track a request. You may also send an e-mail to nycimmunize@health.nyc.gov.

Additional information on influenza prevention and control, including vaccination recommendations (for influenza and pneumococcal vaccines), is available in the Health Department’s City Health Information: Influenza Prevention and Control, 2014-15 publication (http://www.nyc.gov/html/doh/downloads/pdf/chi/chi-33-5.pdf). For further information on ordering vaccine, vaccine supply, standing orders, sample refusal forms, patient education materials, and additional resources to promote influenza vaccination, please visit www.nyc.gov/flu.

**Influenza Vaccination for Healthcare Personnel**
Annual influenza vaccination of all healthcare personnel is considered the standard of care and endorsed by numerous professional organizations. Vaccination of healthcare personnel reduces work absenteeism and deaths among residents of long-term care facilities and should be considered one measure in a patient safety quality program. In 2013-14, 85% of healthcare personnel in New York State Article 28, 36, and 40 healthcare and residential facilities received an influenza vaccine (unpublished data). Effective December 11, 2014, when influenza was declared prevalent in New York State, all healthcare and residential facilities and agencies licensed under Article 28, 36 or 40 of the Public Health Law are required to ensure that all personnel not vaccinated against influenza for the current influenza season wear a surgical or procedure mask while in areas where patients or residents may be present.

**Influenza Antiviral Medications**
One of three influenza antiviral medications - oseltamivir (Tamiflu), zanamivir (Relenza), or recently-approved peramivir (Rapivab) - should be used for treating influenza infections, especially in persons at high risk for serious complications secondary to influenza infection. Peramivir is approved for use only in adults, and only oseltamivir and zanamivir are approved for prophylaxis. Antiviral treatment should be started as early as possible for any patients with confirmed or suspected influenza who are hospitalized,
seriously ill, or ill with a high risk of serious influenza-related complications. The latter group includes young children, people 65 and older, people with certain underlying medical conditions, and pregnant women. Treatment should begin as soon as influenza is suspected, regardless of vaccination status or rapid test results, and should not be delayed for confirmatory testing. A full list of persons considered at high risk for serious influenza-related complications, and recommendations on the use of antiviral drugs, are available on the following websites:

CDC:  http://www.cdc.gov/flu/professionals/antivirals/index.htm

Influenza Reporting
During influenza season, clinicians should suspect influenza infection in patients with febrile respiratory illness, test specifically for influenza in patients at higher risk for complications, and report nosocomial outbreaks of febrile respiratory disease. The Health Department also requires physicians to report any influenza-associated deaths occurring in persons under 18 years of age, and suspected infection with any novel influenza strain with pandemic potential. Visit http://www.nyc.gov/html/doh/flu/html/providers/reporting.shtml for more detailed information on influenza reporting. For information regarding control of influenza outbreaks in acute and long-term care facilities, please contact the Health Department’s influenza surveillance coordinators, Ms. Beth Nivin (347-396-2616) or Ms. Alice Yeung (347-396-2608).

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