Recommendations for Follow-up of Respiratory Disease Outbreaks of Influenza and Influenza-like Illness in Health Care Facilities

New York State Department of Health (NYSDOH) – Healthcare Epidemiology and Infection Control Program

- A cluster or outbreak of influenza-like illness (defined as a measured temperature* ≥37.8°C [100°F] with cough or sore throat) in a health care facility is defined as:
  - One or more *health care facility-associated case(s)* of confirmed influenza in patient(s)/resident(s), or
  - Two or more cases of influenza-like illness among health care workers and patients/residents of a facility on the same unit within 7 days.
- *Infants, elderly adults, and persons with compromised immune systems may have atypical presentations, such as presenting without a fever, sepsis-like syndrome, or an unexplained exacerbation of a chronic lung or heart condition.

- When a cluster (as defined above) of influenza-like illness is identified in a health care facility:
  - In addition to Standard Precautions, symptomatic patients/residents should be placed on Droplet Precautions and confined to their rooms or restricted to the affected unit for at least 7 days or until 24 hours after all fevers have resolved without the aid of anti-pyretic medication (e.g., ibuprofen, acetaminophen), whichever is longer.
  - Ill staff should not be allowed to work until 24 hours after fever has resolved without the aid of anti-pyretic medication (e.g., ibuprofen, acetaminophen).
    - For staff returning to care for patients in a Protective Environment (PE) such as hematopoietic stem cell transplant patients (HSCT), consider temporary reassignment or exclusion from work for 7 days from symptom onset or until 24 hours after fever has resolved without the aid of anti-pyretic medication (e.g., ibuprofen, acetaminophen), whichever is longer. For more information review the CDC's *2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings* at: http://www.cdc.gov/hicpac/pdf/isolation/Isolation2007.pdf

- Notify your NYSDOH Regional Epidemiologist of the cluster/outbreak within 24 hours of recognition by submitting a report on the Nosocomial Outbreak Reporting Application (NORA) system located on the Health Commerce System (HCS; formerly Health Provider Network or HPN) at: https://commerce.health.state.ny.us.
  - If you already have access to NORA, click the NORA link under "My Applications" at the left of the page. The appropriate NYSDOH Regional Epidemiology office or New York City Department of Health and Mental Hygiene (NYCDOHMH) office will follow up with the facility after the electronic submission of the report is received.
  - If you need access to NORA, contact your facility's HCS (formerly HPN) coordinator and ask to be assigned the 'Infection Control Practitioner' role in the Communications Directory. A paper NORA report must be completed and submitted by fax while your access to NORA is being processed. The paper NORA report form can be downloaded at: http://www.health.ny.gov/forms/doh-4018.pdf
  - Health care facility-associated clusters/outbreaks also need to be reported by telephone to the local health department (LHD). However, NYSDOH is responsible for investigation and follow up of clusters/outbreaks in NYSDOH-regulated Article 28 facilities.

- The facility's medical director or infection preventionist may also wish to discuss the situation with their regional NYSDOH or NYCDOHMH epidemiologist. Health department epidemiologists are pleased to offer consultation as soon as an illness cluster/outbreak is identified.
  - For general information on communicable disease reporting, visit the NYSDOH website at: http://www.health.ny.gov/professionals/diseases/reporting/communicable/infection/reporting.htm

- Complete and submit the NYSDOH Respiratory Illness Line List form, available at: http://www.health.ny.gov/professionals/diseases/reporting/communicable/infection/docs/respiratory_illness_line_list_form.pdf , to record as much information as possible about individual ill patients/residents. A separate list should be maintained if ill staff members are identified. Starting and maintaining line lists helps track the progress of an outbreak. Provide the line list(s) to the Regional Epidemiologist with whom you are consulting.

- Ensure monitoring of staff absenteeism for respiratory illness.

- Ensure that respiratory specimens are obtained from 6 to 12 patients/residents with recent (within the past 48 hours) onset of fever and/or respiratory symptoms. Nasal aspirate or nasopharyngeal swab specimens are the specimens of choice.

- Specimens should be submitted to an appropriate hospital or commercial laboratory and tested by both rapid antigen detection and viral culture (because rapid antigen testing is less sensitive than culture, both should be performed for all initial specimens). It is strongly recommended that the rapid antigen kit used be able to differentiate between influenza types A and B. If a hospital or commercial laboratory is not available, **after consultation with the NYSDOH Regional Epidemiologist** a maximum of six specimens at one time may be submitted to the NYSDOH Wadsworth Center virology laboratory for testing. For proper collection, storage, and shipment of respiratory specimens, please visit the NYS DOH Wadsworth Center Laboratories website at: http://www.wadsworth.org/divisions/infdis/virology/forms/shipping_guidelines.pdf

- Implement the following control measures:
  - Offer influenza vaccine to unvaccinated patients/residents and staff.
  - Maintain Standard Precautions for all patients.
  - Confine ill patients/residents to their rooms and place them on Droplet Precautions for 7 days or until 24 hours after fever has resolved without the aid of anti-pyretic medication (e.g., ibuprofen, acetaminophen), whichever is longer.
  - HCP should wear respiratory protection equivalent to an N95 or higher filtering facepiece respirator during aerosol-generating procedures. For more information on respirators and a definition of aerosol-generating procedures, visit the Centers for Disease Control and Prevention (CDC) website at: http://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm
  - Minimize floating of staff.

- Provide in-service training for staff to reinforce the need to adhere to infection prevention and control measures for respiratory outbreaks. Education should include:
  - Standard and Droplet Precautions
  - Cough etiquette and respiratory hygiene
  - Hand hygiene
  - Environmental cleaning

- Ensure sufficient supplies of hand hygiene materials and surgical or procedure masks are available and readily accessible for patients/residents, staff, and visitors.

- Restrict ill persons from visiting the facility.

- Ensure appropriate and effective environmental cleaning of all patient/resident care areas, especially in the areas where patients/residents are ill.

- Notify receiving facilities of the outbreak when transfers occur.

Additionally, if one or more specimens test positive for influenza:

- Re-offer influenza vaccine to unvaccinated patients/residents and staff.*
- Use antiviral medication for influenza treatment and chemoprophylaxis in accordance with current CDC guidelines, available at: http://www.cdc.gov/flu/professionals/antivirals/
- **Please Note: Antiviral treatment/prophylaxis should not be delayed while awaiting testing results.**
- Offer influenza vaccination and place new admissions on antiviral prophylaxis during the outbreak period.
- Do not admit patients/residents to units where patients/residents are ill.
- Limit patient/resident movement from the affected unit(s).
- Notify visitors that influenza is occurring in the facility.
- Restrict ill persons from visiting the facility.

For more information on prevention and control of influenza in health care facilities, visit the CDC website at: http://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm

*In the context of an influenza outbreak, avoid administering live attenuated influenza vaccine (FluMist®) to persons who are taking antiviral treatment or prophylaxis for influenza. Antiviral medications that have activity against influenza may interfere with the development of immunity. In such context, give inactivated influenza vaccine (intramuscular injection) instead of live attenuated influenza vaccine.