

Richard F. Daines, M.D.
Commissioner

Wendy E. Saunders
Executive Deputy Commissioner

July 17, 2009

To: Hospitals, Laboratories, Healthcare Providers, Local Health Departments

From: NYSDOH Bureau of Healthcare Associated Infections

**HEALTH ADVISORY: GUIDANCE FOR MANAGEMENT OF EXPOSURE TO
INFLUENZA-LIKE ILLNESS IN HOSPITAL SETTINGS**

Please distribute immediately to all staff in the Departments of Laboratory Medicine, Critical Care, Emergency Medicine, Family Practice, Internal Medicine, Infectious Disease, Infection Control, Pediatrics, Pulmonary Medicine, and all inpatient and outpatient units.

Summary

- This guidance contains new recommendations with respect to exclusion of ill healthcare workers (HCWs), testing, and response to exposures in hospital settings and replaces previous NYSDOH guidance in these areas. For issues not addressed directly in this document, guidance distributed previously by NYSDOH continues to be in place.
- Prompt identification of suspect cases, and implementation of and strict adherence to infection control procedures remain the most important actions healthcare providers can take to protect their patients and employees.
- HCWs with influenza-like illness (ILI) should immediately be excluded from patient care and facilities. Exclusion should continue until the HCW is asymptomatic for at least 24 hours.
- A negative rapid antigen test (RAT) does not rule-out novel influenza A (H1N1) disease. RAT is not a sensitive tool in the evaluation of suspect novel influenza A (H1N1) disease. Decisions regarding management of ILI and suspected novel influenza A (H1N1) disease should NOT be based upon a negative RAT.
- Decisions regarding post exposure prophylaxis (PEP) should be made on a case-by-case basis and depend on the nature of exposure and the medical status of exposed HCWs and patients. In general, PEP is recommended for HCW and patients at high risk of influenza complications who are exposed unprotected to a suspected or confirmed case of novel influenza A (H1N1) infection.
- Hospitals must ensure that staff are free from health impairments posing a potential risk to patients or personnel or which may interfere with duties. Facilities are encouraged to work with their employee health and legal departments to ensure compliance with all federal and state laws, codes, and regulations.
- Single cases of confirmed nosocomial influenza infection and clusters of ILI among HCWs and patients should continue to be reported to the Regional Epidemiologist.

Introduction

This document is intended to provide guidance for management of exposure to suspected and confirmed novel influenza A (H1N1) disease that occurs in healthcare, and specifically hospital, settings throughout NYS, including NYC.

As of July 15, 2009, influenza virus, predominantly novel influenza A (H1N1), is circulating widely in most of NYS while seasonal influenza viruses are very rare. However, not all communities are experiencing widespread novel influenza A (H1N1) disease. In communities where disease is not widespread, the likelihood that ILI is being caused by novel influenza A (H1N1) is lower than in areas where novel influenza A (H1N1) is circulating widely. Management of presumptive novel influenza A (H1N1) exposure and illness, and thus this guidance, is highly dependent upon local ILI and novel influenza A (H1N1) activity. Providers and healthcare facilities are urged to guide response and management decisions by the degree of local ILI activity.

Primary Prevention of ILI Transmission among HCWs

Prevention of healthcare-related transmission of influenza and any other communicable agent relies on maintaining a high index of suspicion, prompt identification of suspect/confirmed cases, immediate implementation of precautions, and strict adherence to infection control procedures by all HCWs **at all times**. This includes immediately excluding from patient care and facilities any HCW experiencing symptoms of ILI or acute febrile illnesses. *Exclusion should continue until the HCW is asymptomatic for at least 24 hours.*

Influenza Testing and Treatment Decisions

Rapid antigen testing is not a sensitive tool in the evaluation of suspect novel influenza A (H1N1) disease. Therefore, a negative RAT does NOT rule out novel influenza A (H1N1) infection. *Decisions regarding placement or discontinuation of isolation precautions, antiviral treatment, or dismissal of HCWs should NOT be based upon a negative RAT.* Local testing capabilities to identify viruses other than influenza, such as adenovirus, parainfluenza virus, and other common summer-time respiratory agents may be used to determine a non-influenza etiology of patient illness.

The predictive value of a positive RAT is considered to be relatively high for both seasonal and novel influenza in areas with widespread influenza activity. Thus, a RAT positive for influenza A all but confirms influenza infection. At this time almost all circulating influenza is novel influenza A (H1N1) virus, but could change in the fall/winter when seasonal influenza may also be circulating.

Confirmatory testing for novel influenza A (H1N1) requires technology that is not widely available or not timely enough to assist with clinical management and epidemiologic response. Thus, clinical decisions regarding treatment and prophylaxis of novel influenza A (H1N1) must be made without confirmatory data. Where testing is available, confirmatory results can often be used to modify initial recommendations made as needed.

In areas of widespread novel influenza A (H1N1) activity and in facilities with confirmed novel influenza A (H1N1) among patients and/or staff, testing of HCWs with ILI for novel influenza A (H1N1) may not be necessary and treatment post-exposure response decisions can be guided by

knowledge of local novel influenza A (H1N1) testing results. Exceptions might include exposures in sensitive areas, such as units or clinics with immunosuppressed patients (e.g., Hematology-oncology, AIDS/HIV, etc.) who are at high risk for influenza complications.

In areas without widespread novel influenza A (H1N1) activity and in facilities with no confirmed novel influenza A (H1N1) among patients and/or staff, testing of HCWs with ILI for novel influenza A (H1N1) should continue to be prioritized, in accordance with current NYSDOH guidance. When testing HCWs, facilities should seek laboratories that are able to conduct diagnostic testing for influenza subtyping and/or for novel influenza A (H1N1). At this time, two commercial laboratories have received at least provisional approval to conduct testing for novel influenza A (H1N1), with more expected in the fall. Outside of NYC, the NYSDOH Wadsworth Center may be able to test HCW specimens; however, facilities must consult with their Regional Epidemiologist or prior to submitting any specimen to Wadsworth Center.

- Facilities with access to laboratories with molecular (e.g., PCR-based) influenza typing and subtyping capability should prioritize HCW testing locally when feasible.
- Whenever possible, HCWs who develop symptoms of ILI while at work should have an appropriate specimen collected for testing before leaving work.

Regardless of whether an ill HCW is tested for influenza, HCWs at high risk for influenza complications should consult with their physician on the need for empiric treatment. Antiviral treatment should be initiated ideally within 48 hours or as early as possible after onset of illness.

Populations at high risk for influenza complications

At this time, a person considered at high risk for complications of novel influenza A (H1N1) infection is the same as for seasonal influenza. As more epidemiologic and clinical data become available, these risk groups might be revised. High-risk populations include:

- Children <5 years old (the risk for severe complications from seasonal influenza is highest among children <2)
- Adults >65 years
- 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 underlying conditions such as malignancies and HIV infection or by medications
- Pregnant women
- Persons <19 years who are receiving long-term aspirin therapy
- Residents of nursing homes and other chronic-care facilities

Transmission-based precautions

The mode of transmission of novel influenza A (H1N1) virus is unknown, but based on experience in NYS and elsewhere, is assumed to be similar to that of seasonal influenza viruses. Thus, novel influenza A (H1N1) is thought to be transmitted through large respiratory droplets generated by coughing and sneezing, and not through small particles that remain airborne for prolonged periods. In accordance with pandemic influenza guidance, and out of an abundance of caution, additional precautions are recommended for aerosol-generating procedures, since small

particles that remain airborne are more likely to be generated. Guidance from NYSDOH and other national organizations and health departments is consistent with these assumptions and differs from that distributed by the Centers for Disease Control and Prevention.

Based on all available scientific evidence and consensus of many experts, NYSDOH recommends for all healthcare settings in NYS that Standard and Droplet precautions be followed for all patients with suspect and confirmed novel influenza A (H1N1) infection (including surgical mask when within 6 feet of an ill patient). For inpatients, these precautions must be continued for a minimum of seven days or until 24 hours after symptoms have resolved, whichever is longer. Airborne precautions, including N95 respirator and, if available, airborne infection isolation room (AIIR) should be used for aerosol-generating procedures (e.g., nebulized treatments, bronchoscopy, intubation and extubation, and deep open tracheal suctioning).

Post-exposure prophylaxis

The purpose of post exposure prophylaxis (PEP) is two-fold: to protect persons at high risk of complications (such as patients and HCWs) and to prevent subsequent transmission to others. In situations where a disease is rare or not widespread in a community, PEP to prevent illness in HCWs as a means to protect others is practical and logical. However, in situations of widespread transmission of novel influenza A (H1N1), preventing exposure to other HCW and patients may be a futile effort, since exposure is likely to occur outside of the healthcare setting and not every exposure can be documented. Thus, in areas of widespread novel influenza A (H1N1) disease, the use of PEP should focus on protecting the HCWs who are at highest risk of complications due to influenza, except for HCWs who work with the most vulnerable patient populations, where prevention of illness in any HCW is a priority.

The incubation and infectious periods for persons infected with the novel influenza A (H1N1) virus is assumed to be similar to that observed in studies of seasonal influenza, which for this guidance is defined as:

- Infectious period: 1 day before and until 24 hours after a case's symptoms resolve.
- Incubation period: 1 to 7 days following exposure, typically 2 to 3 days.

Efforts should be made to consider PEP for bona fide exposures only to avoid needless dispensing of antiviral medications. If exposure with inadequate precautions occurred with an ill individual more than 7 days prior to when antivirals are being considered, PEP is not necessary. Ill HCWs with household members at high risk for influenza complications should also consult with their physician on the need for prophylaxis of household contacts.

Response to novel influenza A (H1N1) exposures

The healthcare facility at which an exposure occurs is responsible for follow-up of the exposure. In areas with widespread transmission of novel influenza A (H1N1) disease, confirmation of novel influenza A (H1N1) infection in each case of exposure may not be necessary. However, the following measures should be considered for any HCW with ILI or unprotected exposure to a patient with ILI.

HCWs with confirmed or suspected novel influenza A (H1N1) disease

1. Ensure HCW is familiar with recommendations for treatment of infected persons and prophylaxis of household contacts at high risk for influenza complications.

2. Assess onset of illness and whether HCW worked while potentially infectious.
 - a. Document all days HCW worked, including locations and/or units, from 1 day prior to illness onset until exclusion from work due to illness.
3. If the HCW worked while ill, determine and document exact clinical responsibilities of HCW, including:
 - a. Likelihood of patient contact.
 - b. Duration and nature (e.g., face-to-face) of patient contact.
 - c. Use of personal protective equipment (most importantly mask, and possibly gloves).
 - d. Nature of patient population with whom HCW had contact (e.g., is the patient population likely to be high risk for influenza complications, including pediatric, oncology, obstetric, geriatric, dialysis, and critically ill patients).
 - e. Likelihood of close contact with other HCWs in the facility.
4. If HCW worked while potentially infectious (including 1 day prior to symptom onset) AND patient or HCW contact determined to be sufficient that transmission is likely:
 - a. Identify all patients cared for by the ill HCW and all co-workers with significant face-to-face contact with the ill HCW during the potentially infectious period. For example, a HCW conducting a nose and throat exam is more likely to have significant face-to-face contact with the patient than one passing the patient in the hall.
 - b. Contact the exposed patients and co-workers or their healthcare providers to recommend PEP as described below (if within 7 days of exposure):
 - i. Recommend PEP to exposed patients who are at high risk for influenza complications only.
 - ii. Recommend PEP to exposed HCWs who are at high risk for influenza complications.
 - iii. Consider offering PEP to all exposed HCWs, regardless of whether a HCW is at high risk for influenza complications, depending on the patient population served and nature of exposure. For example, on an oncology unit, the rationale to offer PEP would be based on patient risk and not HCWs' individual risk of severe disease.

HCWs with unprotected exposure to a patient with confirmed or suspected novel influenza A (H1N1) disease

1. Assess and document whether the patient was placed under proper precautions from when the patient entered the facility to current placement.
 - a. Identify all HCWs who cared for the patient and assess if appropriate PPE (most importantly mask, and if soiling with patient secretions occurred, gloves/gown/face shield) was used. Use above criteria regarding assessment of clinical responsibilities to determine the likelihood of close contact that could lead to transmission.
 - b. Identify other patients who may have been within 6 feet of the ill patient while the ill patient was unmasked without any type of barrier (e.g., curtain or partition) between the ill and exposed patients.
2. PEP (if within 7 days of exposure)
 - a. Recommend PEP to exposed patients who are at high risk for influenza complications only.

- b. Recommend PEP to exposed HCWs who are at high risk for influenza complications.
- c. Consider offering PEP to all exposed HCWs, regardless of whether a HCW is at high risk for influenza complications, depending on the patient population served and nature of exposure.

Identification of HCWs at High Risk for Influenza Complications

Facility employee health services may be reticent to relay protected health information (PHI) on employees to infection control personnel, citing the Health Insurance Portability and Accountability Act (HIPAA) restrictions on the transfer of PHI. Facilities that are covered entities under HIPAA may disclose protected health information for its own “treatment, payment, or health care operations,” 45 C.F.R. §164.506(c). The definition of “health care operations” includes “[R]eviewing the competence or qualifications of health care professionals...” 45 C.F.R. §164.501.

New York State health regulations, 10 N.Y.C.R.R. § 405.3(b)(10) (available at www.health.state.ny.us/nysdoh/phforum/nycrr10.htm) require that hospitals assess an employee's health status “as frequently as necessary to ensure that staff are free from health impairments posing a potential risk to patients or personnel or which may interfere with duties.” Further, 10 N.Y.C.R.R. § 405.3(b)(14) requires that “all personnel report immediately to their supervisor any signs or symptoms of personal illness,” that they “be referred to an appropriate health care professional for assessment of the potential risk to patients and personnel,” and “[b]ased on this assessment, the hospital shall authorize appropriate measures to be taken, including but not limited to removal, reassignment or return to duty.”

Thus, it is an employee's responsibility to report symptoms of ILI, and a facility's responsibility to minimize infection in the facility and to ensure that a HCW has been managed appropriately (e.g., excluded for a sufficient amount of time such that they are no longer infectious, etc.) before allowing the HCW to return to work. Facilities are urged to consult their legal departments to ensure compliance with all federal and state laws, codes, and regulations in order to protect the health of all patients and staff.

Reporting of facility exposure or transmission of novel influenza A (H1N1)

The following should be reported to the NYSDOH Regional Epidemiologist:

- Any instance of HCW with ILI in an Article 28 facility who may have exposed patients and/or colleagues.
- Any single case of confirmed influenza (including seasonal and novel strains) in a HCW at an Article 28 facility.
- Any single case of confirmed influenza (including seasonal and novel strains) in an inpatient in an acute care Article 28 facility or resident of a long term care Article 28 facility who has been an inpatient for greater than 48 hours prior to the onset of symptoms.
- Any cluster of ILI or evidence of transmission of ILI or influenza (including seasonal and novel strains) among employees and/or patients in an Article 28 facility.

Article 28 facilities are asked to report to their Regional Epidemiologist who will provide guidance and recommend whether a Nosocomial Outbreak Reporting Application report should

be submitted through the NYSDOH Health Provider Network. Local Health Departments receiving such reports are asked to notify their Regional Epidemiologist who will follow up with the facility.

If you have any questions about this document or other NYSDOH infection control guidance, please contact your Regional Epidemiologist or email icp@health.state.ny.us.

Illness Definitions:

An *influenza-like illness (ILI)* is defined as an illness characterized by a documented fever $\geq 37.8^{\circ}\text{C}$ ($\geq 100^{\circ}\text{F}$) and cough and/or sore throat in the absence of another cause.

An *acute febrile respiratory illness* is defined as an illness characterized by an influenza-like illness; or fever and: pneumonia, acute respiratory distress syndrome (ARDS), or respiratory distress in the absence of another cause.

Novel Influenza A (H1N1) Case Definitions:

A *confirmed case* of novel influenza A (H1N1) infection is defined as a person with an acute febrile respiratory illness with laboratory confirmed novel influenza A (H1N1) infection by real-time RT-PCR and/or viral culture.

A *probable case* of novel influenza A (H1N1) infection is defined as a person with an acute febrile respiratory illness who is positive for influenza A, but negative for H1 and H3 by influenza RT-PCR.

A *suspected case* of novel influenza A (H1N1) infection is defined as a person with an unexplained acute febrile respiratory illness (influenza-like illness; or documented fever $\geq 37.8^{\circ}\text{C}$ [$\geq 100^{\circ}\text{F}$] and pneumonia, ARDS, or respiratory distress in the absence of another cause).