



State of New Jersey

DEPARTMENT OF HEALTH AND SENIOR SERVICES

PO BOX 360
TRENTON, N.J. 08625-0360

JON S. CORZINE
Governor

www.nj.gov/health

FRED M. JACOBS, M.D., J.D.
Commissioner

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Influenza Surge Capacity Guidance for General Hospitals

The purpose of this document is to provide guidance to general hospitals to better enable them to prepare for a surge in health care demand this season as a result of patients presenting with influenza.

Every year hospitals in New Jersey experience a surge in demand for services at the height of influenza season. It is not possible to predict the severity of an influenza season nor its impact on an individual hospital. The implementation of strategies to best manage surging patient volume is dependent on multiple factors. Administrators need to take into account both the absolute number of patients seeking medical attention, the intensity of services required by these patients, and the availability of staff and appropriate supplies. Much of the guidance offered below should be helpful in dealing with this expected seasonal surge. With the ever-present threat of an influenza pandemic, New Jersey hospitals need to be ready to deal not only with the normal seasonal increase in volume of hospital patients, but also with the potential for a more significant increase, which could be felt locally, regionally or statewide.

Should the increase in demand for the hospital's services be so large that it significantly impairs the ability of a hospital to offer its full array of regular services, the Department expects that the hospital will, as a result, activate its disaster plan and curtail all admissions for elective procedures. Should a hospital activate its disaster plan, it must notify the Department immediately at 1-800-792-9770. At the time of notification, the hospital should discuss with the Department any measures it plans to take that deviate from licensure standards. The Department will work cooperatively with facilities that have activated their disaster plans to ensure they have the maximum flexibility consistent with patient safety to respond to extraordinary service demands. Any anticipated deviation from the Emergency Medical Treatment and Labor Act (EMTALA) should be discussed with the Centers for Medicare and Medicaid Services (CMS), Region II at 1-212-264-1590.

In the guidance below, those recommendations that might entail deviations from licensure standards and presume an activated disaster plan are presented separately.

Surveillance

Health care facilities will play a key role in surveillance for influenza. Health care providers need to be alert to the signs and symptoms of influenza in patients presenting to their facility. Diagnostic testing for influenza should be considered in any individual presenting with pneumonia, severe respiratory illnesses, or influenza-like illnesses (ILI). Health care providers should receive education regarding the type of influenza testing available in the facility and the proper method of specimen collection. Diagnostic testing methods include the use of rapid diagnostic tests as well as more sensitive techniques, including polymerase chain reaction (PCR) and viral isolation. (<http://www.cdc.gov/flu/professionals/diagnosis/index.htm>). Rapid diagnostic tests are valuable because they allow the provider to make more informed and timely decisions regarding patient treatment and disposition. In addition, rapid testing might influence a provider's decision to offer antiviral prophylaxis to high risk contacts of the patient. Early identification is valuable to the public health community and might help to avert more wide-spread disease. The infection control professional should play an active role in surveillance and should be alerted to any positive influenza test result, any patient with suspected influenza, and any suspected death related to influenza in the facility.

Local health departments and the NJDHSS Communicable Disease Service are available for consultation, regarding outbreak identification and management; NJDHSS reminds health care facilities that any suspect or confirmed outbreak is reportable to local health departments, per N.J.A.C. 8:57. Finally, NJDHSS encourages health care facilities to regularly visit its website on influenza, including the influenza surveillance page (<http://www.state.nj.us/health/flu/surveillance.shtml>), for updated information on statewide ILI activity (including data from emergency departments) and new surveillance initiatives.

Transmission and Infection Control Strategies in the Health Care Facility

Observational studies and observations in hospitals indicate that transmission from one patient to others occurs most often in persons nearest the infected patient and that health care workers are important vehicles of transmission to patients on the same or different wards. These observations suggest that instituting contact and droplet precautions might be helpful. There is less data to support the clinical importance of isolation procedures (such as negative pressure rooms) to limit airborne transmission in the setting of normal air exchange. Further, the number of such rooms is limited and likely would be insufficient to handle the number of hospitalized patients expected with a surge in volume. Influenza viruses are known to survive on non-porous surfaces for up to 24 – 48 hours after contamination and on porous surfaces (tissues, cloth, paper) for up to 8 – 12 hours. Viable virus can be transferred from non-porous surfaces to hands for up to 24 hours after contact and from tissues to hands for up to 15 minutes after contact. The typical incubation period for influenza is two days (range one to four days). Viral shedding, and the period during which a person might be infectious to others, generally peaks on the second day of symptoms, but might begin the day before symptoms start, and typically lasts five to seven days in adults.

Recommended infection control precautions:

- Patients with ILI should be placed in a private room. When a private room is not available, patients with ILI may be cohorted. In an outbreak of influenza, most patients with suspected influenza will not have a specific laboratory diagnosis; such patients should be cohorted with other patients who have or might have influenza. If cohorting is not achievable, at least 3 feet spatial separation should be maintained between the infected patient and other patients and visitors. Special air handling and ventilation are not required.
- Health care personnel should use standard precautions and droplet precautions. These precautions include hand washing, use of gloves, gowns, masks and eye protection as outlined by the CDC. (<http://www.cdc.gov/flu/professionals/infectioncontrol>).
- Currently available federal guidance suggests that surgical masks provide adequate protection against seasonal influenza. However, an individual health care provider may choose to use a higher level of respiratory protection, such as an N-95 respirator. All individuals should wear a mask upon entering the patient's room or when working within 3 feet of the patient. Remove the mask when leaving the patient's room and dispose of the mask in a waste container. Individuals should wash their hands after mask removal.
- Limit the movement and transport of patients from the room for essential purposes only. If transport or movement is necessary, minimize patient dispersal of droplets by having the patient wear a surgical mask.
- The appropriate method and sequence of donning and doffing personal protective equipment should be reviewed with the staff.
- The facility should redouble efforts to comply with requirements to clean surfaces that have been contaminated with respiratory secretions with which staff or patients might subsequently come in contact (e.g., bedside tables, telephones).
- Staff should be educated about the epidemiology and prevention of influenza. Education should be a regularly scheduled event and should be repeated and geared toward a wide audience. Additional methods of education, including teleconferencing and mass mailing, may be considered. Extra effort should be made to ensure that all staff participates in this program, including nurses who work on a part-time basis, other staff who might not routinely care for patients but might be required to do so,

- volunteers, and non-patient care staff (e.g., staff who work in administrative, medical records, food service, environmental services departments, engineering, maintenance).
- Education should be provided to patients. Information on Universal Respiratory Precautions (<http://www.nj.gov/health/flu/education.shtml>) or Respiratory Etiquette (<http://www.cdc.gov/flu/protect/covercough.htm>) should be posted widely throughout the facility. Tissues and stations to facilitate hand hygiene should be made available throughout the facility.
- Visitors with ILI should be asked not to visit hospitalized patients. Signs should be posted outside the facility asking visitors with symptoms of influenza to defer visiting. Visitors with symptoms should be handed a mask or tissues at the door, if they must enter the facility, and be instructed on appropriate infection control practices.
- Visitors to an area with influenza-infected patients should receive educational material, should follow appropriate infection control practices, and be provided with appropriate PPE. Consideration should be given to restricting visits from children.

Isolation and quarantine are not recommended. They can be very effective in preventing the spread of infectious conditions but several substantial challenges may limit their usefulness during an influenza outbreak.

- The short incubation period for influenza makes it difficult to identify and quarantine contacts of influenza-infected case-patients before they become ill and have spread infection to others. By contrast, the longer incubation periods for smallpox (about 14 days) and SARS (up to 10 days) make this a more effective control strategy for those infections.
- The high rate of asymptomatic influenza illness (the majority of those infected) means that many potential disseminators of influenza will not be identified nor will their contacts.
- The wide range of clinical symptoms that might be expressed by influenza infected persons are common to many different pathogens and would necessitate isolation and quarantine of large numbers of persons, many of who would not be infected with influenza.

Emergency Department and Hospital-based Ambulatory Clinic Settings

As patient volume surges, crowded waiting areas might be a source of influenza transmission. Therefore, strict adherence to infection control practices in these settings is paramount. To prevent the transmission of influenza, it is important to implement infection control measures at the first point of contact. Personnel well trained in triage are vital. These individuals will play a key role in maintaining the integrity of the health care delivery system.

Potential strategies to help manage influenza patients in these settings include:

A. Minimal Interventions to Prevent Exposure

- At a minimum, patients should be asked to self-report influenza-like symptoms immediately upon arrival. Signs, in appropriate languages, should be posted instructing individuals with fever and respiratory symptoms to alert the staff immediately. These patients should be asked to wear a mask or use tissues to cover their mouth and nose while in the facility. In ambulatory settings, patients who call for an appointment should be asked if they have ILI; this will enable the staff to make arrangements for minimizing exposure of others (e.g., arrival through a separate door directly into an exam room).
- Consider the installation of plexiglass barriers at the point of triage or registration to protect healthcare personnel from contact with respiratory droplets.
- Waiting areas should have information on “Universal Respiratory Protection” or “Respiratory Etiquette.” The waiting areas should have an ample supply of tissues with proper receptacles for disposal. These receptacles should be emptied regularly. The waiting areas should have hand sanitizers available, disposable towelettes or pump bottles, if hand washing facilities are not available.
- Patients with respiratory illnesses should be kept as far from other patients as possible (at least 3 feet) if they cannot be removed from the common space. Patients reporting ILI should be evaluated as

