INFLUENZA SURVEILLANCE PROTOCOL FOR ONTARIO HOSPITALS

Developed Jointly by the Ontario Hospital Association and
the Ontario Medical Association
Joint Committee on Communicable Disease Protocols
in collaboration with the Ministry of Health and Long Term Care

Approved by
The OHA and The OMA Board of Directors
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This protocol was developed jointly by the Ontario Hospital Association and the Ontario Medical Association to meet the requirements of the *Public Hospitals Act* 1990, Revised Statutes of Ontario, Regulation 965.

The protocol and its recommendations are based upon the best and currently available scientific and medical knowledge and a desire to ensure maximum cost effectiveness of programs, while protecting health care workers and patients. It is intended as minimum, practical standard for Ontario hospitals. However, hospitals may adopt additional strategies when indicated by local conditions.

Members of the Joint OHA/OMA Communicable Disease Surveillance Protocols Committee

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Rationale For Influenza Surveillance Protocol

This protocol was developed because health-care workers have the potential for acquiring and transmitting influenza to those under their care during seasonal community activity of influenza virus.

Hospitals should have policies and implementation strategies for annual influenza vaccination of health-care workers. Hospitals should also have an influenza outbreak control plan outlining how outbreaks of influenza will be managed.

Influenza

Influenza is an acute viral disease of the respiratory tract characterized by fever, cough, headache, myalgia, prostration and sore throat. Influenza derives its importance from the rapidity with which seasonal epidemics evolve, the widespread morbidity and the seriousness of complications, notably viral and bacterial pneumonias. During seasonal epidemics, severe illness and deaths occur, primarily among the elderly and those with underlying diseases. Clinical attack rates during seasonal epidemics range from 10% to 20% in the general community to >50% when introduced into closed populations, such as Long Term Care Homes.[1]

Current Recommendations

Vaccination of persons at high risk, and of people who are potentially capable of transmitting influenza to those at high risk, including health care workers, each year before the influenza season is currently the most effective measure for reducing the impact of influenza.[2]

Hospitals aggregate people at high risk of developing serious, sometimes fatal, complications related to influenza. Recent studies have shown a reduction in nosocomial infections and decrease in total mortality rates among nursing home patients after large-scale vaccination of health care workers.[3, 7, 11, 12] Despite this, immunization levels in health care workers remain well below the published levels needed to provide protection for patients.

Influenza vaccine has been shown to prevent illness in approximately 70% of healthy children and adults.[5] A 1999 study of health care workers concluded that influenza vaccination is effective in preventing infection by influenza A and B and may also reduce reported days of absence and febrile respiratory illness.[4]

Annual immunization is required because the vaccine is updated each year in response to changes in the influenza virus. Protection from the vaccine generally begins about 2 weeks after immunization and usually lasts less than one year in healthy individuals. The recommended time for influenza immunization is from October to mid-November. However, decisions regarding the exact time of vaccination could be modified by local

epidemiology.[5] Side effects from currently used "split-virus" influenza vaccine are usually minimal. Protection from influenza A and B is dependent on the match between the strains included in the vaccine and the strain(s) of influenza circulating in the community.

"Health care workers and their employers have a duty to actively promote, implement, and comply with influenza immunization recommendations in order to decrease the risk of infection and complications in the vulnerable populations for which they provide care."[2]

"The National Advisory Committee on Immunization (NACI) considers the provision of influenza vaccine for health care workers who have direct patient contact to be an essential component of the standard of care for the protection of their patients. Health care workers who have direct patient contact should consider it their responsibility to provide the highest standard of care, which includes undergoing annual influenza vaccination. In the absence of contraindications, refusal of health care workers who have direct patient contact to be immunized against influenza implies failure in their duty of care to their patients."[2]

This influenza surveillance protocol is only part of a hospital-wide infection prevention and control program to prevent transmission of respiratory viruses, including influenza. Hospitals must emphasize proper patient care techniques (e.g. recognition and isolation of patients with acute respiratory infection) and the need for health care workers to remain off work if they have symptoms of acute respiratory infection.

Influenza Surveillance Protocol for Ontario Hospitals

Developed by
The Ontario Hospital Association and the Ontario Medical Association
Reviewed & Revised May 2010

I. Purpose

The purpose of this protocol is:

i) To provide direction to hospitals for preventing and managing influenza virus infections among health care providers, and

ii) To prevent the transmission of influenza virus among persons carrying on activities in the hospital and patients.

II. Applicability

This protocol applies to all persons who carry on activities in the hospital including employees, students, medical house staff, physicians, volunteers and contract workers. The term health care worker (HCW) is used in this protocol to describe these individuals. This protocol does not apply to patients or residents of the facility, or to visitors.

When hiring contract workers or training students, the hospital must inform the supplying agency/school that the agency/school is responsible for the appropriate education, vaccination of their personnel, and maintenance of immunization records.

This protocol is for use by the Occupational Health Service (OHS) in hospitals.

III. Pre-placement

At the time of pre-placement health review, information must be provided to all persons carrying on activities in the hospital about the need for annual influenza vaccination, and possible work restrictions of unimmunized staff in the event of an institutional outbreak.

Additionally, if the pre-placement health review falls during the influenza season (from November to April), the occupational health nurse must ask any new employee in the hospital for evidence of immunization with the current year's influenza vaccine. Only the following should be accepted as proof of influenza immunization:

- documentation of receipt of influenza vaccine during the current influenza season (e.g. Ontario personal immunization record, i.e. "yellow card")

If this documentation is not available, the OHS must offer influenza immunization to the person.

IV. Valid Medical Exemption to Influenza Vaccination

Influenza vaccine should not be given to persons who had a serious adverse reaction to a previous dose or any component of the vaccine, or with known anaphylactic hypersensitivity to eggs which is manifested as hives, swelling of the mouth and throat, difficulty in breathing, hypotension, and shock.[5] Medical contraindication to influenza vaccine should be documented in the health care worker's file.

Pregnancy and breast-feeding are not considered contraindications to influenza vaccination.[2,5] Pregnant women, both healthy pregnant women and those with chronic health conditions, are at increased risk of influenza related complications and hospitalization. Influenza vaccine is considered safe for pregnant women at all stages of pregnancy and for breastfeeding women. **The National Advisory Committee on Immunization (NACI) recommends immunization of pregnant women as a high priority group.** There is further benefit in protecting infants born to immunized mothers during influenza season through passive transfer of antibody across the placenta and through breast milk.

V. Continuing Surveillance

The hospital should establish a policy for annual influenza surveillance, immunization, outbreak control, and use of a neuraminidase inhibitor antiviral agent, e.g. oseltamivir (Tamiflu®), for unvaccinated health care workers (HCW).

The influenza vaccination program established by the hospital should recommend vaccine annually early in the fall to all persons carrying on activities in patient care areas. The OHS must ensure that vaccination clinics are accessible to HCWs. On-site vaccination clinics are recommended, including mobile programs, covering all

shifts. Vaccine coverage rates should be reported to the hospital Infection Prevention and Control Committee and Joint Health and Safety Committee, and the Medical Officer of Health, in December, annually.

The program should also annually remind all HCWs of the hospital's policy on antiviral use and possible work restrictions for those who are not immunized in the event of an outbreak.

During every influenza season, documentation of each person's status must be kept current and available in the occupational health record. Refusal of vaccination should also be documented by the OHS.

The influenza vaccine consent form should include consent to release of immunization status in the event of an outbreak.

VI. Exposure to Influenza During an Outbreak

In the event of an outbreak notify the local Medical Officer of Health.

Immunized personnel (with documented vaccination at least 2 weeks prior) may continue to work without disruption of their work pattern.

Unvaccinated HCWs have the potential to acquire or transmit influenza within the hospital setting. Therefore, during an outbreak caused by influenza A or B virus, antiviral prophylaxis must be offered to unvaccinated HCWs working in the area or unit affected by the outbreak. Unless vaccination is medically contraindicated, vaccine should be provided and the chemoprophylaxis continued for 2 weeks, until immunity develops. Recommended duration of chemoprophylaxis for unvaccinated health care workers in an outbreak situation is until the end of the outbreak. In years where there is a mismatch between the vaccine strain and the outbreak strain of influenza, antiviral prophylaxis must be offered to all HCWs working in the outbreak area or unit, regardless of their vaccination status.
Unvaccinated HCWs who refuse chemoprophylaxis during an outbreak should not provide patient care or carry on activities where they have a potential to acquire or transmit influenza.[2] HCWs who refuse to provide documentation of receipt of vaccine should be managed as unimmunized.

VII. Acute Disease

If **influenza** is suspected (see Glossary) or diagnosed, the person must remain off work until the period of peak symptoms and the period of communicability (five days from onset) have passed.

HCWs with acute respiratory infections other than influenza should refrain from patient care activities, particularly during the first few days of illness when communicability is highest. If the HCW must continue to work, i.e. if the absence of the HCW poses a risk to patient safety, they should not work with high risk patients (see Glossary), and must wear a mask and gloves and practice good hand hygiene during patient contact.

Laboratory confirmed influenza is reportable to the local Medical Officer of Health. Occupationally acquired influenza is reportable to the Ministry of Labour and Workplace Safety and Insurance Board; during periods when influenza is circulating in the community, it may be difficult or impossible to determine if influenza was acquired in the hospital or community setting.

VIII. Evaluation

- HCW influenza immunization rates should be reported to the Infection Prevention and Control Committee and the Joint Health and Safety Committee

- Hospitals should consider making the HCW influenza immunization rate a corporate patient safety indicator.

Glossary

High Risk Patients[2]

- People of any age who are residents of nursing homes or chronic care facilities
- People ≥ 65 years of age
- Adults and children with selected chronic health conditions, including, cardiac or pulmonary disease, diabetes mellitus and other metabolic diseases, cancer, immunodeficiency and immunosuppression, renal disease, anemia or hemoglobinopathy, conditions that predispose to aspiration, and those ≤ 18 years on long term treatment with acetylsalicylic acid.
- Healthy children aged 6-23 months
- Healthy pregnant women (risk increases with length of gestation)

Symptoms Suggestive of Influenza

- Sudden onset of fever, cough, headache, myalgia, prostration and sore throat in the context of influenza circulating in the community.

Influenza Outbreak Definition

- Two or more cases of nosocomially acquired influenza-like illness occurring within 48 hours on a specific hospital unit, with at least one case laboratory confirmed as influenza.

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