OCCUPATIONAL HEALTH and SAFETY
Influenza Immunization and
Outbreak Protocol

December 2016
Introduction

Health care workers (HCWs) have the potential for acquiring and transmitting influenza to those under their care during seasonal community activity of influenza virus.

This Occupational Health and Safety (OHS) Influenza Immunization and Outbreak Protocol is to be used in conjunction with the following documents:


Definitions

**Exposure** - droplet or indirect contact of oral, nasal or conjunctiva mucous membranes with infectious respiratory secretions.²

**Health care worker (HCW)** - all hospital employees, other staff who work or study in hospitals (e.g., students in health care disciplines, volunteers and contract workers) and other health care personnel (e.g., those working in clinical laboratories, nursing homes, homecare agencies and community settings), who are at risk of exposure to communicable diseases because of their contact with individuals or material from individuals with infections both diagnosed and undiagnosed.²

**Healthcare-associated** – infections that patients might have acquired during the course of receiving treatment for other conditions within a health care setting (formally referred to as nosocomial infections).

**Influenza-like illness (PHAC FluWatch definition, 2016-2017 Season)**

**ILI case definition***

Acute onset of respiratory illness with fever and cough and with one or more of the following:

- sore throat
- joint pain (arthritis)
- muscle aches (myalgia)
- severe exhaustion (prostration)

which is likely due to influenza. In children under age 5, gastrointestinal symptoms may also be present. In patients under age 5 or 65 years or older, fever may not be prominent.

**ILI Outbreak Definition (Hospitals and Residential Institutions)**

Two or more cases of ILI within a seven day period, including at least one laboratory confirmed case. Institutional outbreaks should be reported within 24 hours of identification. Residential institutions include but not limited to long-term care facilities (LTCF).**

*It is recognized that the definitions for influenza-like illness (ILI) differ slightly between this document and the Point of Care risk assessment algorithm for patients with ILI (check AHS website - search: ‘infection control’ for the most current recommendation.) These definitions serve different purposes, the former for population surveillance and the latter as a means for staff to assess the infectious risk of patients/residents to themselves and others and implement appropriate preventive measures. Therefore although slightly different, the discrepancy is valid and acceptable.

**A higher sensitivity for recognizing ILI symptoms is recommended when conducting a Point of Care Risk Assessment [http://www.compassionnet.ca/InfectionPreventionControl/20150819_IPC_AHSILIPCRA_.pdf](http://www.compassionnet.ca/InfectionPreventionControl/20150819_IPC_AHSILIPCRA_.pdf)

**Incubation period** is usually 2 days but can range from 1 to 4 days. Adults may be able to spread influenza to others from 1 day before symptom onset to approximately 5 days after symptoms start. Children and people with weakened immune systems may be infectious for longer.⁴
**Outbreak** - The perceived or true occurrence of more cases of a communicable disease than expected in a given area or among a specific group of people over a defined period of time.  

**PHAC** – Public Health Agency of Canada  

**PPE** - Personal protective equipment.  

**Pre placement**  

At the time of the pre placement health assessment, HCWs will be provided information on the need for annual influenza immunization and possible work restrictions of unimmunized HCWs in the event of an institutional outbreak. When the pre-placement assessment falls during the influenza season the Occupational Health Nurse (OHN) will ask for evidence of immunization with the current year’s influenza vaccine. Only the following is accepted as proof of influenza immunization:

- Documentation of receipt of influenza vaccine during the current influenza season from an Alberta Health Services Public Health clinic, Alberta Health Services Workplace Health Safety, a family physician or an approved pharmacy.  
  - OHS Influenza Immunization Reporting Form 2016-2017 “Got my Flu Shot”

If this documentation is not available, the OHN will recommend and offer influenza immunization to the HCW.

**Annual Influenza Campaign**  

Each year, during the months when maximum benefit is provided by influenza immunization, all Covenant Health sites will participate in a major immunization campaign.  

Immunization clinics will be accessible to all HCWs and will include onsite clinics at all sites.  

The campaign usually starts early-October and runs for 4 weeks but influenza vaccine continues to be available to HCWs throughout the winter season, depending on vaccine availability from Alberta Health Services.  

**Documentation**  

Documentation of each HCW’s influenza immunization status will be kept current and available in the Occupational Health office or the designated site office. In addition, they will be supplied with a written record at the time of immunization.

For further details on OHS vaccine legislation, responsibilities, vaccine administration, confidentiality, record management, vaccine handling and storage, vaccine inventory control, special circumstance for mass vaccination situations, training and education as well as adverse reaction reporting requirements please see the Occupational Health and Safety Immunization Program document. This document can be accessed under CompassionNET Occupational Health and Safety, Occupational Health. [http://www.compassionnet.ca/Policies/ii-165.pdf](http://www.compassionnet.ca/Policies/ii-165.pdf)

**Valid Medical Exemptions to Influenza Immunization and Antiviral medications**  

Exemptions from influenza immunization and or antiviral medications will be granted for reasons of:

1. Documented serious adverse reaction to a previous dose or any component of the vaccine or antiviral, with the exception of egg².  
2. Documented oculorespiratory syndrome (ORS) within 24 hours after influenza vaccination in the past; in these cases please refer to the ORS decision flowchart on slide 53 of the Alberta Health Services Seasonal 2016-17 Influenza Immunization Orientation powerpoint presentation² and/or consult an MOH or Infectious Disease Consultant.  
3. Documented diagnosis of Guillain-Barré Syndrome (GBS) within 6 weeks of previous influenza immunization².  
4. Other extenuating extraordinary circumstances acceptable to the employer.  

Pregnancy and breastfeeding are not considered contraindications to influenza immunization³, ⁴  

Data on use of antiviral medications in pregnant and breastfeeding women is limited and so prescriptions should only be given after consultation with a physician for a pregnant or breastfeeding HCW.
If it is deemed there is a medical contraindication to influenza vaccination or to antiviral therapies, then these contraindications should be documented in the HCW’s medical file.

**Exposure to Influenza during an Outbreak**

Immunized HCWs with documented immunization at least 2 weeks prior to the onset of the outbreak may continue to work without disruption to their work pattern.

Unimmunized 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 chemoprophylaxis may be offered to unimmunized HCW working in the area or unit affected by the outbreak.

Unless influenza immunization is medically contraindicated, the vaccine should also be provided at the same time, and the chemoprophylaxis continued for 2 weeks (until immunity from the vaccination develops) or until the outbreak is declared over (whichever comes first).

Recommended duration of chemoprophylaxis for unimmunized HCWs in an outbreak situation is often until the end of the outbreak.

When there is a mismatch between the vaccine strain and the outbreak strain of influenza, antiviral chemoprophylaxis may be offered to all HCWs in the outbreak area or unit, regardless of their immunization status.

Unimmunized HCWs who refuse recommended chemoprophylaxis during outbreak should be excluded from working at any site for 72 hours since the last day of work within the outbreak unit/facility. If the HCW remains asymptomatic after 72 hours they may then be relocated to an outbreak unit for the outbreak duration at the manager’s discretion.

**Pandemic:**

In the event of a declaration of a pandemic, Alberta’s Pandemic Influenza Plan will take precedence.

**Confirmed Influenza Outbreak**

(Refer to Tables 2 and 3, for detailed work restrictions)

**Refusal of Unsafe Work**

Section 35 Existence of imminent danger (Alberta Occupational Health and Safety Act) states:

1. **No worker shall**
   - (a) carry out any work if, on reasonable and probable grounds, the worker believes that there exists an imminent danger to the health or safety of that worker,
   - (b) carry out any work if, on reasonable and probable grounds, the worker believes that it will cause to exist an imminent danger to the health or safety of that worker or another worker present at the work site, or
   - (c) operate any tool, appliance or equipment if, on reasonable and probable grounds, the worker believes that it will cause to exist an imminent danger to the health or safety of that worker or another worker present at the work site.

2. **In this section, “imminent danger” means in relation to any occupation**
   - (a) a danger that is not normal for that occupation, or
   - (b) a danger under which a person engaged in that occupation would not normally carry out the person’s work.

Balancing HCW health and safety, while maintaining appropriate quality patient/resident care, is critical.

Covenant Health shall provide the necessary personal protective equipment (PPE) and training to assist HCWs in performing their work activities safely.
HCWs do not have grounds for refusing to work in an outbreak area and are expected to perform their assigned work activities. HCWs that refuse to perform their assigned work activities without acceptable reasons may be subject to disciplinary action.

OHS Assessment and Surveillance of Staff Located in an Outbreak Unit/Facility

Responsibilities of Manager and/or Supervisor

i. Complete an electronic HCW exposure list that includes all HCWs who may have potentially been exposed. The list must include full names and phone numbers where the HCW can be reached. Email the list to occhealthnurse@covenanthealth.ca during normal business hours (Mon-Fri 0800-1600h) or the on call OHS designate as soon as possible. All information contained in the list shall be treated as private and confidential as outlined under Section 53(3) of the Public Health Act.

ii. Ensure that HCWs that meet exposure criteria submit an Employee Incident and Investigation Report to OHS.

iii. The HCW list should include anyone potentially exposed. This could be students, resident physicians, and all other physicians. If there are health care worker trainees (students) on the list, please provide the name of the post-secondary institution they are from so OHS can contact the responsible institution.

iv. Manager and/or Supervisor may initiate outbreak protocol(s) with regard to consultation with fitness to work lists distributed throughout the influenza outbreak season by Occupational Health and Safety.

Occupational Health Nurse/OHS Designate Role

i. Confirm the outbreak has been declared by the Medical Officer of Health (MOH) and obtain the EI number.

ii. Access the HCW immunization records for the affected area.

iii. Contact all HCWs who may have potentially been exposed to:
   a) Evaluate the exposure in order to determine whether they require chemoprophylaxis, have contraindications to chemoprophylactic treatment or are pregnant or breastfeeding.
   b) Evaluate whether the HCW has symptoms of influenza-like illness that would necessitate removal from the workplace and possibly antiviral treatment for acute illness.
   c) Provide influenza vaccine to those HCWs that have not received the vaccine.

iv. Consult with an infectious disease consultant regarding the identified outbreak, any relevant chemoprophylaxis or treatment options and recommendations, and alternatives for HCWs with medication allergies, intolerances, pregnancy, breastfeeding, or other contraindications to treatment.

v. Provide testing of symptomatic HCWs for influenza virus infection (i.e. nasopharyngeal swab) if directed by the outbreak consultant.

vi. Contact the Medical Officer of Health (MOH) or outbreak consultant for a letter recommending chemoprophylaxis required. (In some rural locations, the OHN will advise the HCW to consult a family physician for chemoprophylaxis.)
   Or
   Provide the letter to the HCW to take to a family physician for prescription of recommended chemoprophylaxis

vii. Contact the designated outbreak pharmacist for potential prescription of chemoprophylaxis therapy (for Edmonton area).

viii. Assess HCW suitability for return to work. Consult Work Restrictions Tables 1 and 2.

ix. Advise the manager(s) if the HCW is fit or not fit to work in the area.

Health Care Worker Role

i. “Despite the excellent efficacy of most vaccines, there is a minority of people who may not be fully protected even after immunization: therefore, immunized individuals need to continue daily self-assessment for influenza-like illness (ILI) during influenza season. In addition, immunized individuals should continue to use PPE to protect against new strains of influenza virus and other infectious respiratory agents.”

5
ii. If the HCW is exposed as per definition:
1. Contact manager to report suspected exposure;
2. Complete Employee Incident and Investigation Report;
3. Submit report to OHS or site designate.

iii. If the HCW develops Influenza-like-illness (ILI):
1. Contact manager to report illness;
2. Complete Employee Incident and Investigation Report;
3. Submit report to OHS or site designate;
4. Complete and submit WCB Worker’s Report of Injury as directed by OHS or site designate.

iv. If the HCW develops ILI at work, they should perform respiratory hygiene practices (e.g. coughing into sleeve, using tissues, hand washing, and wearing a surgical mask) and leave the workplace as soon as possible. The length of time a worker should stay off will be recommended by the outbreak consultant at the time of the outbreak. Generally, a person with influenza is infectious for an average of 5 days. Symptoms such as cough may continue for longer than five (5) days. However, if a worker is otherwise healthy, he or she is not likely to continue to be infectious after five (5) days following onset of symptoms.7, 8

v. If the HCW works in more than one facility/unit, it is the HCW’s responsibility to inform the alternate facility/unit that an influenza outbreak is in progress in the index facility, and determine whether or not they are permitted to work at the alternate facility/unit.

For detailed outbreak control strategies refer to:
- Guidelines for Outbreak Prevention, Control and Management in Acute Care and Facility Living Sites
- Guidelines for Outbreak Prevention, Control and Management in Supportive Living and Home Living Sites

Continuing Surveillance/Evaluation

OHS will report the vaccine uptake rates of each facility throughout the Influenza campaign to the Senior Leadership Team, Senior Operating Officers/Executive Directors and managers.

Managers should distribute to all employees for their information.
# Table 1

**WORK RESTRICTIONS**

*(When there is a match between vaccine strain and outbreak strain)*

<table>
<thead>
<tr>
<th>EXPOSED HCW</th>
<th>WORK RESTRICTIONS</th>
<th>OCCUPATIONAL HEALTH &amp; SAFETY (or designate)</th>
<th>MANAGER ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently well, immunized 14 days or more prior to outbreak declaration.</td>
<td>* Remain at work, no restrictions</td>
<td>* Establish exact date of immunization and counsel HCW re: PPE, ILL, and Respiratory etiquette.</td>
<td>* No action required.</td>
</tr>
</tbody>
</table>
| HCW symptomatic, regardless of immunization status. | * Remain off work until 5 days after the onset of symptoms AND afebrile for 48 hours. | * Follow-up with the HCW as appropriate, and as directed by the MOH (medical officer of health). This MAY include HCW assessment, referral for confirmation of diagnosis and clinical management that might include laboratory investigation and consideration of antiviral therapy. | * Time code HCW “sick leave”, if applicable.  
* Possible WCB claim  
* Provide Public Health case number to Ability Management. |
| HCW currently well, immunized less than 14 days prior to outbreak declaration AND taking antiviral medication. | * Remain at work and continue recommended antiviral medication until 14 days post immunization, or the outbreak duration, whichever occurs first.  
* If symptoms develop, remain off work for 5 days after symptom onset.  
* Call the Occupational Health Nurse managing the outbreak NOT the incident reporting line, if symptoms develop. | * Offer antiviral up to 14 days post immunization or the outbreak duration, whichever occurs first.  
* If symptoms develop, HCW must leave work. OHS or designate will follow up with HCW (see above re: symptomatic HCW). | * In the event of an outbreak, provide OHS/designate with HCW names potentially exposed at work.  
* If HCW becomes symptomatic, code as sick time until WCB is approved.  
**During Outbreaks:** For symptomatic HCWs working on an outbreak unit/facility, have them call the OHN managing the outbreak NOT the incident reporting line. |
| HCW currently well, immunized less than 14 days prior to outbreak declaration AND refusing to take antiviral. | * Remain at home for 72 hours, using banked vacation, OT, etc.  
May be reassigned to alternate area after 72 hours for up to 14 days post immunization or outbreak duration, whichever occurs first  
**OR**  
* If unable to reassign HCW, HCW remains at home for balance of 14 days post-immunization, or outbreak duration, whichever occurs first.  
HCW use banked vacation, OT, etc.  
* If symptoms develop, remain off work for 5 days after symptom onset. | * If symptoms develop, HCW must leave work. OHS/designate will follow up with HCW.  
* If symptoms develop, see above re: symptomatic HCW. | * Send HCW home for 72 hours.  
* Reassign HCW to another unit/non-outbreak area after initial 72 hours if possible.  
* Time code-Leave without pay, vacation or banked time. |
| HCW well, not immunized, not taking antiviral. | * If antiviral and/or immunization is refused, HCW to be sent home for 72 hours.  
* Unpaid leave of absence, vacation, or banked time may be used.  
* If HCW remains asymptomatic after 72 hours, HCW may then be reassigned to work in another non-outbreak area of the | * Offer antiviral and immunization.  
* If immunization is refused but antiviral accepted, it will be prescribed for the duration of the outbreak.  
* Counsel HCW re: PPE, ILL, and respiratory etiquette.  
* If symptoms develop, see above re: | * Time code-leave without pay, vacation or banked time. |
outbreak duration.
  * If reassignment is not possible, HCW is excluded from work for outbreak duration.

<table>
<thead>
<tr>
<th>EXPOSED HCW</th>
<th>WORK RESTRICTIONS</th>
<th>OCCUPATIONAL HEALTH &amp; SAFETY (or designate)</th>
<th>MANAGER ACTIONS</th>
</tr>
</thead>
</table>
| HCW unable to take Antiviral (As outlined under “Valid Medical Exemptions to Influenza Immunization and Antiviral Medications”) | * If immunization is accepted, HCW sent home for 72 hours post immunization.  
* If HCW remains asymptomatic after 72 hours, HCW may be reassigned to another unit/area until 14 days post immunization or the outbreak duration, whichever occurs first. | * Offer immunization  
* HCW must meet exemptions outlined under “Valid Medical Exemptions to Influenza Immunization and Antiviral Medications”. | * HCW send home for 72 hours  
* Time code sick leave  
* Assess reassignment after 72 hours, if applicable. |
| HCW unable to be immunized | * If antiviral is accepted and HCW remains asymptomatic, they may continue to work in the affected area. | * Offer antiviral  
* If antiviral accepted, HCW to remain on the antiviral for the outbreak duration, or as directed by the MOH.  
* If antiviral refused, HCW must meet “Valid Medical Exemptions to Influenza Immunization and Antiviral Medications” | * Send HCW home for 72 hours  
* If symptomatic, or meet exemptions according to policy, sick leave may be used.  
* Assess reassignment after 72 hours, if applicable  
* Time code-sick leave, if applicable |
Table 2

**WORK RESTRICTIONS**
*(When there is a mismatch between vaccine strain and outbreak strain)*

<table>
<thead>
<tr>
<th>EXPOSED HCW</th>
<th>WORK RESTRICTIONS</th>
<th>OCCUPATIONAL HEALTH &amp; SAFETY (or designate)</th>
<th>MANAGER ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCW Currently well</td>
<td>* Remain at work provided they are asymptomatic.</td>
<td>* Follow up with HCW.</td>
<td>* Advise HCW to phone OHS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Offer antiviral</td>
<td>* HCW allowed to continue to work but advised will be send home if they develop ILI symptoms.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If antiviral accepted, medication will typically be prescribed for the outbreak duration, or until 14 days post-administration of an effective vaccine</td>
<td></td>
</tr>
<tr>
<td>HCW symptomatic</td>
<td>* Contact manager to report illness.</td>
<td>* Follow up with the HCW as appropriate, and per MOH directions. This MAY include HCW assessment, referral for confirmation of diagnosis, and clinical management which may include laboratory investigation and consideration of antiviral therapy.</td>
<td>* Time code HCW-sick leave, if applicable.</td>
</tr>
<tr>
<td></td>
<td>* HCWs not receiving treatment must be off work for 5 calendar days after ILI symptom onset</td>
<td></td>
<td>* Advise HCW to phone OHS or designate re: ILI symptoms. Do NOT have HCWs phone the incident reporting line during outbreak.</td>
</tr>
<tr>
<td></td>
<td>* Symptoms such as cough may continue longer than 5 days, however, if HCW is otherwise healthy, HCW is unlikely to still be contagious after 5 days from ILI symptom onset, and it is appropriate for their return to work.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>* HCWs receiving antiviral treatment may return to work as soon as their symptoms resolve and they have received at least 3 full days of treatment, and been afebrile 48hrs.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Occupational Health and Safety

December 2016
### SPECIAL CONSIDERATIONS

**Work Restrictions for Medically Compromised or Pregnant Workers**

*When there is a Mismatch between the vaccine strain and the outbreak strain*

<table>
<thead>
<tr>
<th>EXPOSED HCW</th>
<th>WORK RESTRICTIONS</th>
<th>OCCUPATIONAL HEALTH &amp; SAFETY</th>
<th>MANAGER ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCW has made management aware that they are medically compromised or pregnant.</td>
<td>* HCW reassigned to decrease the exposure to an influenza virus when the epidemiology and associated morbidity are not yet well understood. Reassignment may be to alternate duties (including alternate patients/residents) and/or re-deployment to other areas. * HCW should not work in designated influenza assessment clinics, hospital influenza units or be present, while an aerosol generating medical procedure (AGMP) is being performed on a patient suspected or confirmed to have an unidentified influenza virus. * In outbreak situation, HCWs with medical conditions that place them at high risk for severe diseases or complication of influenza should be reassigned to a non-outbreak area.</td>
<td>* OHS and Human Resources should provide support to the Manager</td>
<td>* Reassignment will be made by the Manager on a case by case basis in consultation with OHS and HR.</td>
</tr>
</tbody>
</table>
References


