

British Columbia's
Pandemic Influenza Response Plan (2012)
*Guidelines for Pandemic Influenza-related Office Management and
Infection Control for Private Physicians*

September 2012

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1. INTRODUCTION

This document is meant to be a practical “how to” guide for family physicians who wish to improve their infection control practices for pandemic influenza. First addressed are engineering and administrative approaches, followed by personal protection and traditional disinfection procedures. Office management issues such as sick leave policies and continuing education are also considered. Multiple examples of scripts, messages, signs, checklists and handouts are offered throughout.

A significant review article was written in 2005, summarizing pandemic planning from a primary

care perspective. It identified areas of commonality between the majority of plans, and highlighted areas where a particular issue was addressed in only one or a few plans. Twenty-five plans in total were selected for review, in large part based on findings described in this article and in part through a selection meant to complement perspectives from a variety of continents, international/federal/provincial perspectives, or regions across Canada.

[See <http://www.plosone.org/article/info:doi/10.1371/journal.pone.0002269>].

2. GOAL STATEMENT AND OBJECTIVES

2.1 Goal Description

The purpose of this plan is to offer guidance to private physicians and their clinic managers in recommending engineering, administrative, and personal protection measures that should be taken in order to mitigate the impact of a novel influenza virus on patients and staff alike.

2.2 Objectives

1. Describe infection prevention and control measures and cleaning practices (Section 3).
2. Recommend triage processes to enhance flow of patients and prevent transmission of influenza (Section 4).
3. Suggest relevant office administrative strategies to reduce potential for influenza transmission (Section 5).
4. Provide sample checklists, handouts, signage, and tools (Appendices A to M).

3. BASIC INFECTION CONTROL IN PRIVATE PRACTICE

Personal protective equipment (PPE) is often thought of as the most important element in infection control. While significant, PPE are but one of several lines of defense which physicians can use. This should be seen in the context of a much broader strategy.

A comprehensive approach to infection prevention and control in the medical office includes engineering and administrative controls as well as disinfection measures. When used in combination, these measures are expected to

significantly reduce the risk to physician, staff and patients in the office setting.

The changes being recommended for the medical practice environment will need to be clearly communicated to both staff and patients for optimal benefit. Issues of leadership and communication during a response to an influenza pandemic in the context of an outpatient medical office are further discussed in Section 5 with tools found in Appendices B and C.

3.1 Engineering Approaches to Infection Control

Adapting the layout and improving patient flow in the medical office through simple physical modifications will offer some protection. This is simply an extension of the well-recognized infection control principle of social distancing, the goal of which is to ensure at least 2 metres between patients who are potentially infectious. Some measures that may help reduce the potential for influenza transmission by creating barriers between people (i.e. staff and patients or between patients) include installing dividers (free-standing partitions, privacy curtains, or

simply hanging sheets) between patient stations. In addition engineering controls such as high numbers of air exchanges in patient areas, and maintaining temperature (21 to 24 degrees Celsius) and relative humidity (45% to 60%) in the ranges most damaging to influenza virus survival, neither too warm or too cold, too dry or too humid.

Physicians should understand the heating, ventilating, and air conditioning (HVAC) systems in their offices and know how to

optimize it to prevent infection, given their particular use of space in their clinic. Air exchanges in the waiting areas are particularly important and natural ventilation (e.g. opening of windows, having waiting areas in areas with direct sunlight) should be encouraged.

Physicians may need to speak with the person who is responsible for ventilation in their building.

Examples of signage for patients and staff are found in Appendices E through I.

Reception Area

Information regarding the optimal infection prevention and control procedures for an influenza pandemic will need to be clearly posted to ensure patients and staff understand and use them appropriately. Depending on the size of the clinic and layout of the area, places for such signage may include a triage desk in the lobby or hallway and at the entrance to the clinic (and preferably in all of these places).

While ideally patients with influenza-like-illness (ILI) should use separate entrances from patients without ILI, very few medical offices have more than one accessible entrance.

Keeping frequently used doors open to avoid recurrent doorknob contamination and special attention to patient flow and patient distancing can nonetheless be managed to reduce potential exposure. Patients with ILI should be offered a surgical or procedure mask or tissues to cover their mouth and nose when they enter the clinic area. Alcohol-based-hand sanitizer (ABHR) should be readily available at the clinic entrance for use by all.

Plexiglas partitions (a.k.a. “sneeze guards”), which can be installed at reception counters by most glass companies, can limit transmission from patient to staff. Patients with fever and cough should already be wearing a surgical mask prior to this point.

Plexiglas partitions (a.k.a. “sneeze guards”), which can be installed at reception counters can limit potential for transmission from patients to staff. Patients with fever and cough should already be wearing a surgical mask prior to this point.

Counter-top or wall-mounted alcohol-based hand rubs (60-90% alcohol) should be installed at clinic entrance (inside and out), reception counter, around the waiting area as well as near exam room doors. If a sink is readily available plain soap and water can be used in place of ABHR. Soap and water should also be used to clean hands when they are visibly soiled.

Waiting Room

Soft toys, cloth seating, and magazines should be removed from the waiting and exam rooms. If cloth seats cannot be changed, placing washable drapes or plastic covers over seats is an alternative solution.

Waiting room chairs should be spaced apart. Some may actually need to be removed from the waiting room and even placed in a hallway to allow adequate separation of ILI and non-ILI patients. If no additional space is available, a section of the waiting room should be specifically designated for patients with ILI, until such time as there is access to an exam room. Administrative controls such as phone triage to confirm the reason for the visit prior to patient arrival and explaining to patients with ILI the procedures for wearing a mask and using ABHR can help facilitate patient flow. Examples of waiting room configuration are found in Appendix D.

If patients with ILI are not wearing a mask and cannot be spaced apart in the waiting room, they should be placed into an exam room as soon as possible. An option for offices with a nearby parking lot is for patients with cars and cell phones to wait in their cars until called in via the cell phone.

Exam Rooms

The closest possible exam room(s) should be designated for patients with ILI in order to allow rapid isolation pending formal assessment. These exam rooms should be emptied of all but the bare minimum equipment (e.g. exam table, chair, BP cuff, lights).

Air circulation (air exchanges) in the exam rooms should be increased. To see if this is feasible, physicians should speak to their building manager, or the person responsible for ventilation in the building.

3.2 Scheduling Approaches to Infection Control

Whereas engineering approaches address the physical aspects of infection prevention and control, administrative approaches make it possible to separate patients in time as compared to space.

Significant changes in practice patterns may be warranted as local rates of pandemic influenza transmission increase in the community.

Pre-planning visits for patients at high risk of severe disease

It is recommended that physicians discuss with their patients, particularly those at high risk of complications of influenza, the possibility of developing influenza-like illness and what to do in that case. Part of this process involves clinic policies, such as employing telephone consultations rather than having patients with ILI come to the office. It might include being sure that a physician has the patient's preferred pharmacy coordinates or a patient fax number or email on file. It might also involve a change in prescribing patterns, for example prescribing a course of antiviral medication for the patient to take upon your advice should they develop ILI. Most importantly, patients at high risk of severe illness or complications from influenza should be made clearly aware of the importance of early treatment and the steps they should take if they develop any symptoms suspicious for influenza.

Calling patients prior to scheduled appointment

In preparation for patients' non-ILI scheduled visits, it should be confirmed that they do not have any ILI symptoms. If they have, yet symptoms remain mild and there are no known risk factors for severe illness or complications from the pandemic strain, patients might be asked to defer the visit. If they do have underlying conditions, they could also confer with the physician regarding benefits and risk of

antiviral treatment, with or without an in-person visit.

Patients, particularly those deemed at higher risk of complications, including pregnancy, should be requested to reduce exposure situations as much as possible, to teach those they are around to cough/sneeze into sleeve (or if they use a tissue, to dispose of tissue immediately and to wash or use alcohol-based hand rubs immediately afterwards), and to make a prompt appointment if they develop symptoms. If their illness progresses rapidly or they develop key symptoms such as shortness of breath, they should be treated as early as possible (this may include receiving urgent care at an emergency department or alternate care centre); if a plan was established ahead of time, they should consult by telephone to confirm that treatment is now appropriate. If no plan was developed, they should still call or present to the location that was determined to be most appropriate (medical office, alternative care site, etc).

Deferral of non-essential visits

Older patients and patients with chronic medical conditions are often seen more frequently in clinic. The frequency of follow-up visits could be decreased for those deemed at higher risk of complications or severe disease during the pandemic. Providing longer prescriptions to such patients, as long as they have proven relatively stable in recent months, should be considered. Telephone refills can also be considered. Those who live alone should be instructed to arrange for a friend, a 'flu buddy,' to check in on them in the event they fall ill.

In the case of patients not known to be at higher risk, non-urgent visits can be postponed. Routine Pap smears and "complete physicals" can, for example, be deferred by two to three months, or even longer in many cases.

Table 1 Examples of Primary Care Needs that Can or Cannot be Deferred

	Description	Examples
Priority A	Patients who have urgent needs and require services / treatment and would otherwise have to go to hospital for care Essential preventive services	<ul style="list-style-type: none"> • Acute exacerbation of chronic illness that doesn't require hospitalization • Complications of pregnancy • Certain acute infections, such as otitis, UTI, cellulitis, STIs, acute diarrhea with blood • Acute major illness / injury (including fractures or potential fractures, or dislocations) • Acute minor injuries (e.g. lacerations that require more than taping) • Acute psychiatric illness • Abdominal pain NYD • Musculoskeletal pain with trigger features (i.e. not a basic sprained ankle) • New onset headache • Palliative care • Patients recently discharged from hospital on new medications who must be followed closely (e.g., warfarin) • Patients requiring pneumococcal immunization • Flu vaccine when it becomes available • Other vaccines / prophylaxis required for outbreak control • Routine childhood immunization
Priority B	Patients whose situation is non-critical and who require treatment/services that can be deferred for a few weeks (i.e. after the peak of the pandemic wave). (Alternate method for prescription renewal for long-term medications is appropriate).	<ul style="list-style-type: none"> • Stable chronic disease management, including asthma, diabetes, hypertension, and stable cardiac, pulmonary, renal, neurological or hepatic disease • Uncomplicated pregnancy care—1st or 2nd trimester • Well baby visit
Priority C	Patients whose condition is non-life threatening and who require services that can either be deferred or managed in another way (e.g., automatic prescriptions) for the duration of a pandemic	<ul style="list-style-type: none"> • Well child and adult checkups • Nutrition and weight counseling • Pap smears, Routine adult immunizations • Preventive services and clinics • Insurance and other forms

Adapted from Table 11-3 of the Ontario Plan for an Influenza Pandemic August 2008

Timing of visits

Patients calling about ILI should be advised to present to clinic at a set time, usually towards the end of the morning or the end of the afternoon. For example, ILI patients could be

cohorted in time to visits between 11 am and 12 pm and/or 4 pm to 6 pm.

When patients present in person to clinic with fever or cough, regardless of whether they called ahead or not, they should be given a surgical mask, advised to perform hand hygiene,

placed in a distinct section of the waiting room or in an exam room. All patients in the clinic should be requested to perform hand hygiene on entry to the clinic and after such activities as coughing. It is most likely that despite such measures, ILI and non-ILI patients will often present simultaneously in clinical practice. This

could most safely occur in group practices if a “flu doctor of the day” approach is taken where one clinician sees all cases of ILI for the day. The usefulness of such an approach will vary by practice and depends in large part on the effectiveness of the triage process on the phone and at the door.

3.3 Personal Barriers and Hygienic Approaches to Infection Control

What is considered appropriate personal protective equipment (PPE) varies for patients and staff, depends on the situation.

Cough etiquette, hand cleansing and alcohol-based hand rubs (60-90% alcohol)

Cough etiquette practices should be encouraged; meaning people should preferably cough or sneeze into their sleeve-covered elbow. Alternatively, if a bare hand or tissue-covered hand is used the tissue should be discarded immediately and prompt hand hygiene should follow.

Sinks with soap and water should be available to patients and staff alike for washing hands that are visibly soiled. Paper towels should be disposed of in lidded non-touch waste-baskets. Alcohol-based hand rubs should be available in multiple locations, from outside the medical office door to the reception counter and in the waiting room as well as by every exam room. Healthcare workers should use alcohol-based hand rubs or wash hands between patients, before and after mask use, after contact with secretions, etc. Patients should clean or wash hands after removing surgical mask, using tissue,

coughing, or sneezing, etc. Staff and patients alike should use alcohol-based hand rubs (60-90% alcohol) before entering room and upon exit.

Patient Masks

All patients presenting with any suspicion of ILI should be instructed to wear a surgical mask as a method of reducing the spread of droplets from the person infected. This immediate step may indeed be the most important one; performing hand hygiene comes a close second. Signage about cough etiquette, mask usage, and hand hygiene must therefore be prominent.

Staff masks, eye protection, and other personal protective equipment

Office staff should also wear surgical masks, with the addition of eye protection when providing care within 2 metres of symptomatic patients. Even more specifically, staff who will be providing care within 2 metres of symptomatic patients should wear such personal protective equipment. Medical clinics should ensure the availability of such supplies ahead of time (see Appendix M).

Figure 1 PHAC Interim Guidelines for Ambulatory Care

PHAC INTERIM GUIDANCE FOR AMBULATORY CARE

Routine practices and contact precautions for clinicians

The following infection control practices are indicated when assessing patients with fever and respiratory symptoms:

Respiratory protection

Clinicians should wear respiratory protection when within 2 metres of a person with influenza-like illness (ILI). The choice between a surgical mask and N95 respirator should be based on the following:

Wear a surgical mask:

- For most patient care within 2 m.

Wear an N95 respirator:

- If conducting an aerosol-generating medical procedure* on a suspect ILI case. All individuals in the room should wear an N95 respirator

Whenever a surgical mask or respirator is required, the HCW should also wear eye or face protection**

* Aerosol-generating Medical Procedures (AGMPs): any procedure carried out on a patient that can induce the production of aerosols of various sizes, including droplet nuclei. Examples include: non-invasive positive pressure ventilation (BIPAP, CPAP); endotracheal intubation; respiratory/airway suctioning; high-frequency oscillatory ventilation; tracheostomy care; chest physiotherapy; aerosolized or nebulized medication administration; diagnostic sputum induction; bronchoscopy procedure; autopsy of lung tissue.

** Eye protection can be goggles or safety glasses that can be cleaned between patient contact or disposable face shields.

Instructions for Putting on/Taking Off Surgical Mask

Instructions For Putting On Surgical Mask

1. Before taking the mask out of the box, clean your hands With either soap and water or ABHR).
2. Open the mask: pull at the top and bottom to open the pleats or chamber.
3. Pre-bend the nosepiece
4. Place the mask on your face making sure to cover your mouth and nose.
5. Tie at the head crown: bring both top ties to the crown of your head and secure with a bow.
6. Tie at nape of neck: tie bottom ties securely in a bow at the nape of your neck.
7. Contour the nosepiece: once the mask is tied, press the malleable nose piece until a

secure fit and good seal are achieved; this will reduce blow-by at the top of the mask

8. Perform security check: a properly tied mask can be tested by checking the security of the ties and the nosepiece, and checking for blow-by.

N.B. Blow-by = the amount of air that escapes from the top, bottom, or sides of the mask due to improper fit on the face; blow-by is reduced when the mask is put on properly.

Instructions For Removing Surgical Mask:

1. Clean your hands prior to removing mask (with either soap and water or ABHR)
2. Remove the mask by handling only the ties
3. Untie the bottom, then the top tie
4. Remove the mask from your face

5. Properly dispose of the mask by touching only the ties and clean your hands thoroughly. See Appendix F.

Instructions for Putting on/Taking Off N95 Respirators

Fit testing before use of a N95 respirator is in regulation under Worksafe BC. Physicians who have a professional relationship with their local hospital should enquire about whether they may get fit-tested there, and then purchase the brand of mask that was used at the fit-test. Otherwise, physicians could call occupational health and safety companies in their area to see if they provide fit-tests for N95 respirators.

Instructions for Putting On N95 Respirator

1. Clean your hands prior to putting on the N95 respirator.
2. Position the respirator in your hands with the nosepiece at your fingertips.
3. Cup the respirator in your hand, with the nosepiece at your fingertips, allowing the headbands to hang freely below your hand.
4. Position the respirator under your chin with the nosepiece up; the top strap goes over your head, resting high at the top back of your head; the bottom strap is positioned around the neck and below the ears; the straps do not cross over one another; if there is only 1 headband, it should rest high at the back of your head.
5. Most disposable respirator models have a metal nose clip; place your fingertips from

both hands at the top of the metal nose clip; slide your fingertips down both sides of metal nose tip to mold the nose area to the shape of your nose. See Appendix G.

Once the respirator has been applied, be sure to check your fit. Checking fit ensures you have applied the respirator correctly and achieved a proper fit and seal for maximized protection. This is not to be confused with a “Fit Test”, a regulatory requirement that states “a respirator which requires an effective seal with the face for proper functioning must not be issued to a worker unless a fit test demonstrates that the face piece forms an effective seal with the wearer’s face” (Worksafe BC website, 2011). See Appendix G.

Worksafe BC guidelines (section 8.4): <http://www2.worksafebc.com/publications/OHSRegulation/Part8.asp#SectionNumber:8.40>

Instructions for Taking Off N95 Respirator

1. Clean hands prior to removing respirator
2. Front of respirator may be contaminated—DO NOT TOUCH!
3. Grasp bottom strap and pull over back of head without touching respirator, then with top strap and carefully remove
4. Discard in waste container and clean your hands thoroughly after removing the respirator (see Appendix G).

3.4 Disinfection Measures

Exam rooms should be cleaned at least once daily routinely, preferably twice. If the patient’s mask was on for the whole time in the exam room and the patient had performed hand hygiene before entering the room, cleaning after each patient is a use of scarce resources – office

staff and office time – for little additional benefit.

Potentially exposed environmental surfaces (chairs, tables, etc.) should be cleaned at least daily (see Appendix J). Frequently touched surfaces (e.g. medical equipment, door knobs,

light switches, telephones, keyboards, mice, pens, charts, PDAs, cell phones, etc.) should be cleaned at least twice daily. Anything that touched the patient, such as stethoscopes, should be cleaned between patients.

Disinfection should occur both regularly (scheduled) and frequently (following specific events of potential contamination).

Disinfectants must be applied to cleaned (i.e. not soiled) surfaces. The surface must also dry on its own as wiping it dry does not allow enough contact time. It must be remembered that not all disinfection agents are cleaners.

High-level disinfection (by use of autoclave, dry heat, or gas) should occur as per usual protocols for critical items such as surgical instruments,

biopsy equipment, and all instruments used for foot care. High-level disinfection is also recommended for semi critical items such as vaginal specula, etc.

Intermediate level disinfectants, including alcohol and chlorine (bleach), should be used for surfaces and medical equipment. See Appendix K.

Low-level disinfectants can also be used to clean stethoscopes, blood pressure cuffs, ear specula, horizontal surfaces (work counters, baby scales, and tables), walls, curtains, blinds, floors, carpets, upholstery, toys, and toilets. Low-level disinfectants include hydrogen peroxide and phenolic compounds. See Appendix K.

4. TRIAGE AND PATIENT FLOW

A comprehensive triage process starts prior to a patient arriving at the clinic.

4.1 Pre-visit Messaging

Office telephone message and medical office website should clearly instruct patients where to seek up-to-date instructions regarding the most appropriate process for assessment of influenza-like illnesses (ILI).

Medical office assistants booking a patient should inquire about any symptoms of ILI (see Figure 2). Patients who booked appointments

for non-ILI issues but later develop ILI symptoms should call ahead of their appointment time to alert the office and seek guidance as to next steps.

Patients should also be reminded via these messages that some visits can often be deferred. See Appendix L.

4.2 Building and Medical Practice Signage

When there are two or more medical practices in a same medical building, they can explore collaborative approaches. If, for example, a medical group runs both a family practice and an after-hours clinic, patients presenting without ILI might be directed to the former but those with ILI to the latter. Signage to this effect would be imperative.

A simpler way to separate patients in duo and group practices is to have one physician designated as the “ILI doctor of the day.” Ideally, patients with ILI will have been identified by the MOA on the phone and instructed to come at a specific time (see below), but many can still be expected to simply “show up.” Again, signage is important.

4.3 Reception and Triage process

Every patient should be actively asked about ILI symptoms when registering. A surgical mask should be immediately available to any patient (and accompanying persons) who has or recently had symptoms of ILI. Patients should be passively advised (by signage) upon arrival to immediately perform hand hygiene and to put on a mask if they have had any recent ILI. Patients responding in the affirmative should be placed in a designated exam room or shown the

appropriate part of waiting room to use until an appropriate exam room becomes available.

Staff should remain alert for ill-looking patients who might not have self-reported. Multiple signs should be present around the waiting room walls to instruct patients to cough and sneeze into upper sleeves or to use tissue, dispose of immediately, and perform hand hygiene.

Figure 2 Receptionist checklist

- | |
|--|
| <ol style="list-style-type: none">1. Greet patient2. Enquire regarding recent or current fever or cough3. Offer alcohol-based hand rub and surgical mask to patient and accompanying person(s) if any fever or cough and point out how to use the alcohol-based hand rub and put on mask4. Reinforce office policy regarding mask use for fever or cough (if necessary)5. Register patient as per usual protocol6. Escort patient to designated exam room if fever or cough, or instruct on appropriate area of waiting area. |
|--|

Provide all patients instruction in proper “cough etiquette” and other relevant topics,

preferably in audio-visual format (i.e. not only in print) and by giving the good example.

4.4 Patient Disposition

The patient history should briefly assess for suitability of self-care and home isolation with a particular focus on the availability of assistance.

No Support Needed

If no support is expected to be required, a simple patient handout regarding home isolation, infection control and what to do if symptoms worsen is expected to be adequate.

Support Needed

If support is deemed to be required, such as daily check-in for status reports, appropriate referrals need to be made, possibly through Emergency Social Services (ESS) as outlined in

Annex O of the Canadian Pandemic Influenza Plan.

<http://www.phac-aspc.gc.ca/cpip-pclcpi/ann-o-eng.php>

Transfer to Alternative Treatment Site or Hospital Necessary

Should the patient be deemed too ill to send home, preparations must be quickly made for transport to hospital or an alternative treatment site. A copy of patient information should be prepared and a phone call made or fax sent to the receiving site. Appropriate degree of intervention (DOI) should be indicated on forms.

5. OFFICE MANAGEMENT

HealthLink BC will be assisting in the development of resources for Medical Office Assistants, including suggested telephone

messaging. These will be posted in the event of an influenza pandemic.

5.1 Staff Education and Communications

It is useful at all times, but particularly in times of crisis, to have clearly defined roles and responsibilities, balanced by cross training and staff redundancy (i.e. planned backup).

Family Medicine Influenza Practice Lead

A first critical role that needs to be filled is that of designating a group leader for the purposes of mounting a coordinated response to influenza pandemic at the family practice level. This should be the most qualified person, not necessarily the highest “ranking” or most senior. A checklist is provided in Appendix A.

Figure 3 Planning for an influenza pandemic and Leading a family practice response to it

Bookmark the Provincial Health Office’s site for the Physicians of BC and subscribe for automatic notification of updates.
Create a planning team and develop a written plan.
Establish a decision-making and coordinating structure.
Determine how to conduct surveillance for pandemic influenza in staff.
Develop policies and procedures for managing pandemic influenza in patients and staff.
Educate and train staff on pandemic influenza and the clinic’s response plan.
Determine how the clinic will communicate and coordinate with staff and public health authorities during a pandemic.
Determine how the clinic will communicate with patients and help educate the public regarding prevention and control measures.
Develop a plan for procuring the supplies (e.g., personal protective equipment [PPE]) needed to manage influenza patients.
Train staff on use of PPE along with other infection control measures
Determine how the clinic will participate in broader community and regional plans
Instruct staff in personal and family preparedness issues, including seeking someone else to look after children if schools close, or caring for other dependents, even pets, to avoid being kept from working for these reasons
Make plans to ensure ongoing supply needs

The above steps are put another way in Figure 4.

Figure 4 New Ways of Delivering Services (from Ontario Health Plan for Influenza Pandemic)

1. Deliver services in different ways
2. Defer some services
3. Deliver new services or work in alternative care sites (a.k.a. fever clinics or flu clinics)
4. Develop plans to ensure continuity of care, with particular attention to vulnerable patients and patients with ongoing health problems
5. Use appropriate occupational health and safety/infection prevention and control practices.
6. Establish links with other primary care providers
7. Increase awareness of the community's pandemic plan
8. Develop a plan to communicate effectively with patients
9. Develop a plan to communicate effectively with staff
10. Maintain an up-to-date business continuity/emergency plan

External Sources of Information

Throughout the influenza season, key information portals from local, provincial, national, and international organizations will be scanned on a daily basis, or as needed, with accurate and timely updates posted to the PHO site for physicians of BC.

diagnosis and treatment, referral patterns, and practice management issues, etc. Times for more formal “education” might be set aside as the situation demands and permits.

Staff should be invited to become involved in the ongoing planning process as well as working in operational and logistics areas.

Internal Communications and Education

A staff member should also be designated to coordinate internal communications. This includes updating personnel list, including seeking possible replacements and incorporating them in communication strategies early on.

Updates to be sought should include epidemiology, infection control, clinical

An effective communications strategy will also include such practical issues as checking in on ill staff at home. In seeking to build emotional resiliency, it should also address feelings of grief, exhaustion, anger, and fear (general psychological support to staff and specific psychosocial response plan). Physical and mental care for self and loved ones can be discussed and ethical dilemmas should not be ignored.

Figure 5 Topics for Internal Communications

Epidemiology
Infection Control
Clinical Issues
Referral Processes
Practice Management
Patient Messaging
Staff Wellness (including monitoring health and building resiliency)
Psychosocial support for staff and families

While many questions and topics will be raised, the key educational message for staff can be

summarized in two sentences (see Figure 6).

Figure 6 Key Messages to Staff and Physicians

“Get masks on coughing patients ASAP!” and “Don’t touch your face, eyes, nose, or mouth!”

For doctors, the extra message is:

“If the patient mask comes off, you must have mask, eye protection, and gloves on yourself.”

5.2 Staff Scheduling and Reassignments

Temporally separating ILI and non-ILI patients may require an extension of clinic hours. Staff availability has to be assessed in this light. Due to simultaneous greater staffing needs and expected staff absenteeism to care for family or self, etc., a list of potential replacement staff needs to be developed, and a “fit-for-work with restrictions” policy established to prevent infected sources from exposing staff and patients to pandemic influenza in the healthcare

setting. As ILI cases are nonetheless likely to present throughout the day, family medicine practices should be ready to separate patients physically as well.

Staff can also be reminded that physical activity, maintaining a healthy diet and appropriate amount of sleep remain important parts of a healthy lifestyle.

5.3 Sick Leave Policy

Ideally, staff who have suspect or confirmed pandemic influenza should be asked to stay home. However, in extreme circumstances where a shortage of healthcare providers compromises patient safety, a “fit-for-work with restrictions” approach may be taken, providing ALL of the following requirements are met. The healthcare provider must:

- Only have mild influenza symptoms, and
- Feel well enough to work, and
- Only be assigned to patients with influenza, and
- Practice strict respiratory and hand hygiene protocols,
- Wear a mask whenever they are in a common area, and

- Take recommended antiviral treatment.

Some staff might be only mildly ill or already recovering and/or caring for others but able to perform some of their duties remotely by telephone, depending on how a clinic is set up.

It would be most productive to have open and frank dialogue between staff and employer prior to any staff illness.

Replacement support staff for family physicians’ offices might be found among support staff from specialists’ offices that have had elective procedures deferred.

Figure 7 Sample Policy Changes

Establish clear expectation that staff not come to work when they have respiratory infection symptoms (“Yes, doctor, this means YOU TOO!”) and support this expectation with appropriate attendance policies. In extreme circumstances where a shortage of healthcare workers compromises patient safety, a “fit-for-work with restrictions” policy may be implemented.

Consider policies to facilitate staff who have ILI and who are staying at home.

Avoid rewarding staff for not using their sick days

APPENDICES

Appendix A: Clinic Pandemic Preparedness Checklist

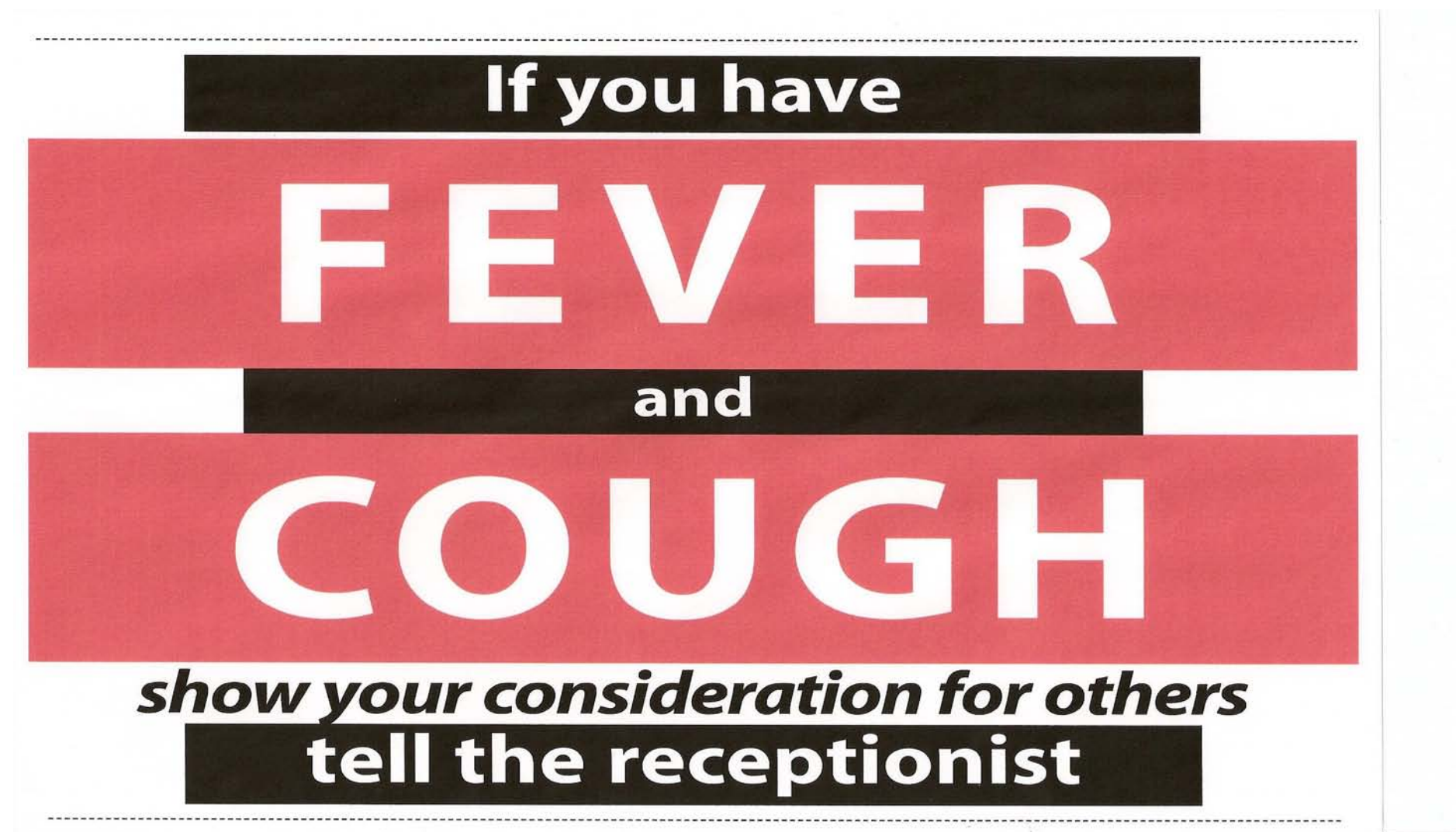
Adapted from: Daly, P. (2007). Pandemic influenza and physician offices [Electronic Version]. BC Medical Journal, 49, 263-269.

Pandemic influenza: Checklist for physician offices	
<p>Now</p> <ul style="list-style-type: none"> <input type="checkbox"/> Provide annual influenza vaccination to all eligible patients based on public health advice. <input type="checkbox"/> Provide pneumococcal polysaccharide vaccine to all eligible patients (those 65 years and older, those with chronic health problems). <input type="checkbox"/> Provide conjugate pneumococcal vaccine series to infants. <p>Now and during pandemic</p> <ul style="list-style-type: none"> <input type="checkbox"/> Post sign advising patients to check in with reception upon arrival. <input type="checkbox"/> Separate patients from reception staff with Plexi-glas partition <i>or</i> minimum distance of 2m. <input type="checkbox"/> Post cough etiquette signs in the waiting area. <input type="checkbox"/> Provide liquid soap and paper towels in patient washrooms and at staff sinks. <input type="checkbox"/> Provide staff with small bottles of alcohol-based (60%-90%) hand sanitizer. <input type="checkbox"/> Mount alcohol-based hand sanitizer dispenser at office entrance for patient use upon arrival. <input type="checkbox"/> Provide disposable tissues and no-touch waste receptacles in waiting area. <input type="checkbox"/> Replace cloth-covered furnishings with easy-to-clean furniture. <input type="checkbox"/> Provide surgical masks to be worn by ILI patients who are coughing or sneezing. <input type="checkbox"/> Wash or sanitize hands before and after each patient contact. <input type="checkbox"/> Wear surgical mask when face to face with ILI patients with cough. <input type="checkbox"/> Wear fit-tested N95 respirator when face to face with suspected TB patients, ILI patients undergoing aerosolizing procedures, and patients who may be infected with emerging pathogens with suspected airborne transmission. <input type="checkbox"/> Wear gown, gloves, and eye protection only as needed to avoid contact with blood or other infectious body fluids. <input type="checkbox"/> Provide paper sheeting for exam tables and change between patients. <input type="checkbox"/> Clean and disinfect medical devices (e.g. stethoscopes) between patients. <input type="checkbox"/> Clean and disinfect exam rooms and waiting areas daily. 	<ul style="list-style-type: none"> <input type="checkbox"/> Monitor staff illness and ensure staff with ILI remain off work, or in extreme circumstances implement a “fit-for-work” policy. <p>During pandemic</p> <ul style="list-style-type: none"> <input type="checkbox"/> Assign a staff member to coordinate pandemic planning and monitor public health advisories. <input type="checkbox"/> Educate all staff about pandemic influenza. <input type="checkbox"/> Maintain copies of pandemic educational materials and self-care guides for patients (provided by public health). <input type="checkbox"/> Telephone triage all patient requests for visits. <input type="checkbox"/> Postpone all nonessential patient visits (e.g. routine checkups). <input type="checkbox"/> If possible, schedule ILI patients during designated time slots. <input type="checkbox"/> If possible, provide a separate entrance and waiting area for ILI patients <i>or</i> separate ILI patients from others in the waiting area by 2m. <input type="checkbox"/> Remove all magazines, books, and toys from the waiting area. <input type="checkbox"/> Eliminate or limit use of shared items by patients (e.g. pens, clipboards, phones). <input type="checkbox"/> Minimize ILI patients’ time in the waiting area. <input type="checkbox"/> If possible, designate one exam room for all ILI patients. <input type="checkbox"/> In group practices, consider having one physician see all ILI patients. <input type="checkbox"/> Assign staff who have recovered from pandemic influenza to care for ILI patients. <input type="checkbox"/> Plan for disposition of all ILI patients: <ul style="list-style-type: none"> • Home with self-care guide • Home with home care. • Admission to alternate-care site. • Admission to acute care. <input type="checkbox"/> When referring ILI patients, notify receiving facility in advance. <input type="checkbox"/> Clean ILI waiting area, exam rooms, and frequently touched surfaces such as doorknobs a minimum of twice daily and when visibly soiled. <input type="checkbox"/> Ensure cleaners avoid vacuuming and dry dusting: damp dust only. <input type="checkbox"/> Maintain a minimum 2-week supply of soap, paper towels, hand sanitizer, cleaning supplies, and surgical masks. <input type="checkbox"/> Develop a contingency plan for staff shortages (e.g. use of volunteers).

Appendix B: Signage

(A) Sign for Entrance door.

For printable version, go to the following URL: Government of Quebec: <http://www.santepub-mtl.qc.ca/Mi/etiquette/pdf/posterfevercough.pdf>



(B) Possible Signage at reception:

ATTENTION: All patients of Drs X/Y/Z:

Drs X/Y/Z are taking precautions to protect your health.

Please use the alcohol-based hand rub on your hands before proceeding.

If you have fever and cough, please advise staff and put on a mask.

Cough = Mask

Patients with symptoms of Influenza-like illness will be seen by Dr. X today in room(s) ____.

Thank you for your cooperation.

(C) Example of Office Poster (to be updated in the event of a declared future influenza pandemic)



**Questions About the
H1N1 Flu Virus?**

We Can Help.

You have heard a lot about the H1N1 flu virus, or the swine flu, lately. Some people are even visiting emergency rooms because they are worried.

The symptoms are similar to seasonal flu. You can protect yourself by taking the same simple steps that you do during the regular flu season:

- When you sneeze, use a disposable tissue.
- Cough into your sleeve.
- Wash your hands often with soap and water.
- Avoid touching your eyes, nose or mouth.
- Stay home if you are sick.

If you are worried, the best place to start is not the emergency room. It is by getting the right answers. And we are here to help.

If you are feeling ill or have questions about the H1N1 flu virus, call HealthLink BC at 8-1-1, visit www.gov.bc.ca or www.facebook.com/h1n1informationbc or follow H1N1BC on Twitter.



BRITISH
COLUMBIA
The Best Place on Earth

Appendix C: Basic Personal Measures and Cough Etiquette

GET THE FACTS ABOUT FLU AND STAY HEALTHY

Influenza is caused by viruses, and is generally spread when an infected person coughs or sneezes.

Here are six simple, common sense precautions that can help safeguard everyone's health:

1) Stay home when you're sick or have influenza symptoms. Get plenty of rest and check with a health care provider as needed. If you have a fever or cough illness, regardless of where you have travelled, stay home from work or school and limit contact with others to keep from infecting them.

2) Avoid close contact with people who are sick. If you are sick, keep your distance from others to protect them from getting sick.

3) Cover your mouth and nose with a tissue when coughing or sneezing, and throw the tissue away immediately. It may prevent those around you from getting sick.



4) Wash your hands. Washing your hands often will help protect you from getting sick. When soap and water are not available, use alcohol-based disposable hand wipes or gel sanitizers.

5) Avoid touching your eyes, nose or mouth. You can become ill by touching a surface contaminated with germs and then touching your eyes, nose or mouth.

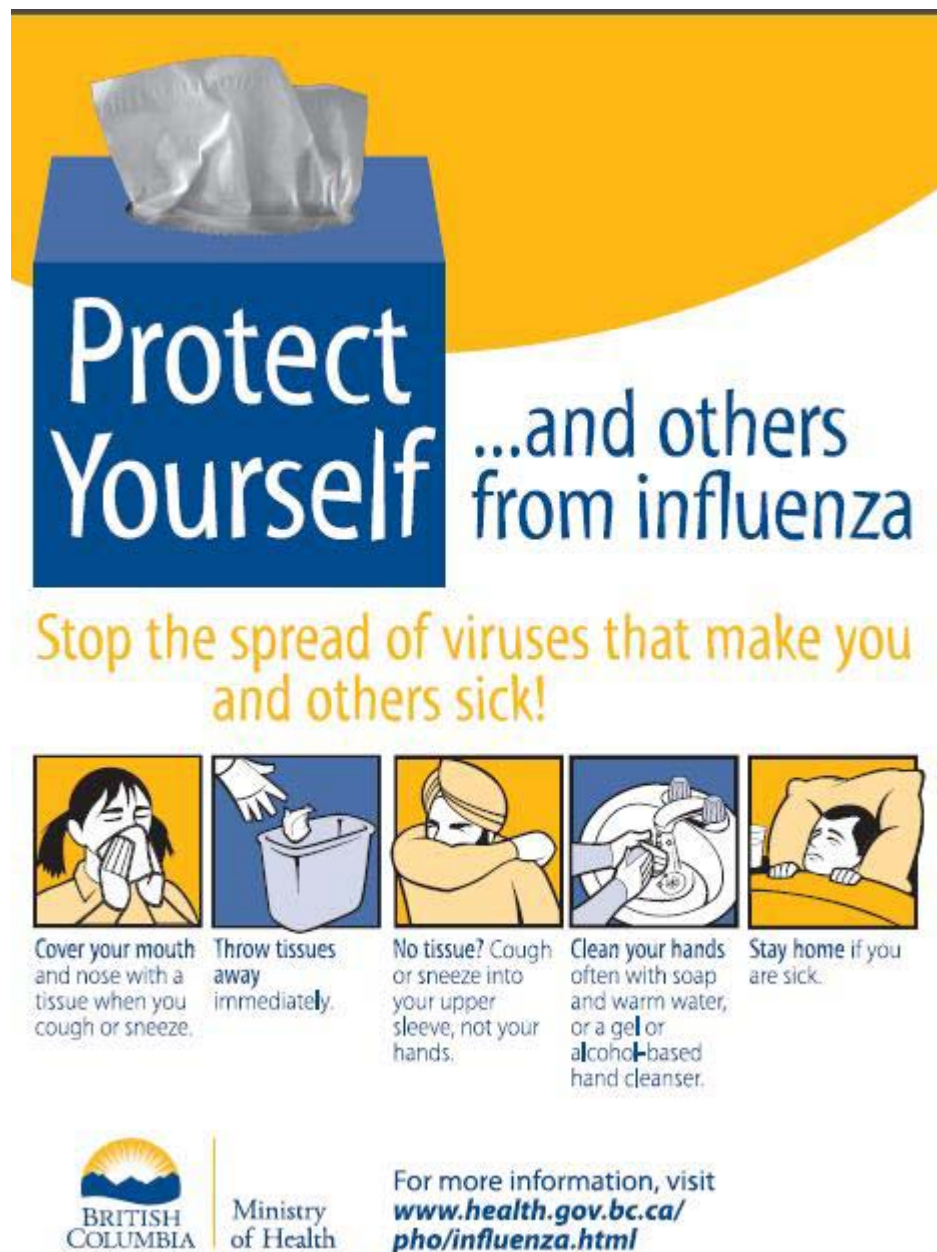
6) Practice other good health habits. Get plenty of sleep, be physically active, manage stress, drink plenty of fluids, eat nutritious foods, and avoid smoking, which may increase the risk of serious consequences if you do contract the flu.

7) See a health care provider. If your symptoms become worse see a health care provider, but call ahead of time to let them know you have fever or cough illness.

You can call [HealthLink BC](#) at **8-1-1**, 24 hours a day/seven days a week to speak to a nurse if you have more questions or if feeling ill.

For more steps on how to protect you and your family visit [FightFlu.ca](#)

To get a printable version of the poster, go to the following URL:
www.health.gov.bc.ca/pandemic/pdf/flu_poster.pdf



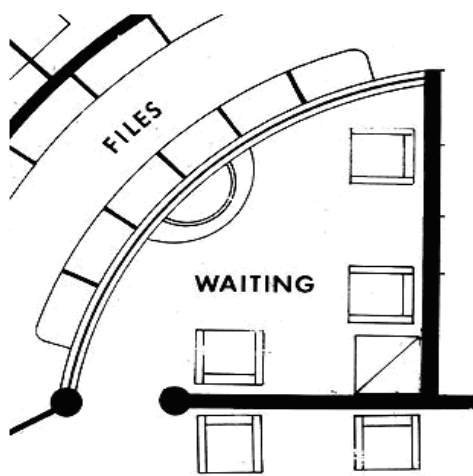
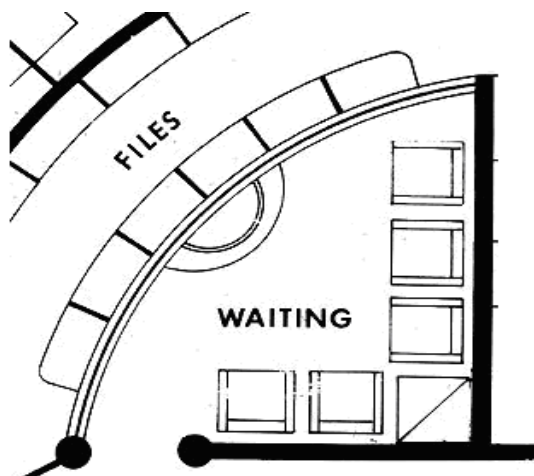
Appendix D: Waiting Room Configuration

An example of repositioned seating in a small waiting room could be as follows:

Original Seating (5 chairs)



Seating Spaced Apart (5 chairs)



Repositioning of seating in a larger waiting room could be as follows:

Original seating (24 chairs):

Seats all spaced apart (21 chairs):

Seats spaced only for ILI (27 chairs):



Appendix E: Hand Hygiene

To get a printable version of this poster, go to the following URL:
www.health.gov.bc.ca/pandemic/pdf/handwash_soap.pdf

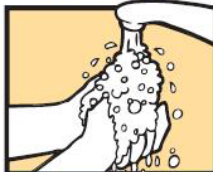
Handwashing with Soap and Water

Protect Yourself and others from influenza

*Viruses can live on hard surfaces for up to 2 days, and on hands for up to 5 minutes.
Wash your hands often to keep yourself and others healthy.*



- 1 Remove jewelry.**
Wet hands with warm water, add soap to palms and rub hands together to create lather.



- 2 Thoroughly cover all surfaces of your hands and fingers with lather and work fingertips into palms to clean under nails.**



- 3 Rinse hands well**
under warm running water.



- 4 Dry with a single-use towel**
and then use towel to turn off the tap.

*Hands should be washed for a minimum of 10-20 seconds.
To help children wash long enough, say the ABC's or sing "Twinkle, Twinkle Little Star."*

For more information, visit
www.health.gov.bc.ca/pho/influenza.html



To get a printable version of this poster, go to the following URL:
www.health.gov.bc.ca/pandemic/pdf/handwash_sanitizer.pdf

Cleaning Hands with Sanitizer

Protect Yourself and others from influenza

*Viruses can live on hard surfaces for up to 2 days, and on hands for up to 5 minutes.
Wash your hands often to keep yourself and others healthy.*



- 1 Remove jewelry**
and apply enough product to keep hands moist for 15 seconds.



- 2 Rub product**
in palms and thoroughly cover all surfaces of the hands and fingers, including the backs and each thumb.



- 3 Rub fingertips of each hand**
in opposite palm.



- 4 Keep rubbing**
until hands are dry.

Do not use hand sanitizer with water. Do not use paper towels to dry hands.

Note: Wash hands with soap and water if hands are visibly dirty.
Some manufacturers recommend washing hands with soap and water after 5-10 applications of gel.

For more information, visit
www.health.gov.bc.ca/pho/influenza.html



Appendix F: Surgical Masks

Putting On/Taking off a Surgical Mask

*Always wash your hands prior to putting on a surgical mask and after removing it.

Kimberly-Clark Worldwide Inc. (2005)

The worry-free solution...



...for proper instructions,
proper fit.

Surgical Mask Donning and Removal

Surgical Mask Donning Instructions

- **Open The Mask**
Pull at the top and bottom to open the pleats or chamber.
- **Pre-Bend The Nosepiece**
- **Place The Mask On Your Face**
Place the mask on your face making sure to cover your nose.
- **Tie At The Head Crown**
Bring both top ties to the crown of your head and secure with a bow.
- **Tie At Nape Of Neck**
Tie bottom ties securely in a bow at the nape of your neck.
- **Contour The Nosepiece**
Once the mask is tied, press the malleable nose piece until a secure fit and good seal are achieved. This will reduce blow-by at the top of the mask.
- **Perform Security Check**
A properly tied mask can be tested by checking the security of the ties and the nosepiece, and checking for blow-by.

Blow-by = the amount of air that escapes from the top, bottom, or sides of the mask due to improper fit on the face. Blow-by is reduced when the mask is donned properly.

Surgical Mask Removal

- Remove the mask by handling only the ties.
- Untie the bottom, then the top tie.
- Remove the mask from your face.
- Properly dispose of the mask by touching only the ties.

Appendix G: N95 Respirators

Putting on N95 Respirator

Centre for Disease Control & Dept of Health and Human Services

Put the respirator on correctly: NOTE: Follow the instructions that come with the respirator. Manufacturer instructions for many NIOSH approved disposable respirators can also be found at:
http://www.cdc.gov/niosh/npptl/topics/respirators/disp_part/



Position the respirator in your hands with the nosepiece at your fingertips.



Cup the respirator in your hand, with the nosepiece at your fingertips, allowing the headbands to hang freely below your hand.



Position the respirator under your chin with the nosepiece up. The top strap goes over your head, resting high at the top back of your head. The bottom strap is positioned around the neck and below the ears. The straps do not cross over one another. If there is only 1 headband, it should rest high at the back of your head.



Most disposable respirator models have a metal nose clip. Place your fingertips from both hands at the top of the metal nose clip. Slide your fingertips down both sides of metal nose strip to mold the nose area to the shape of your nose.

Checking Fit of N95 Respirator

Centre for Disease Control and Dept of Health and Human Services

Always check your fit when you wear a respirator. There are two steps to assessing the fit.



First, place both hands completely over the respirator, then take a quick breath in to check whether the respirator seals tightly to the face. Be careful not to disturb the position of the respirator.



Next, place both hands completely over the respirator and exhale.



If during either step, air leaks around the nose, readjust the nosepiece as described above. If air leaks at the mask edges, work the straps back along the sides of your head until a proper seal is achieved.



If you cannot achieve a proper fit and seal, ask for help from someone else, try a different size in that respirator model, or try a different respirator model. Different models of respirators may fit faces differently. Do NOT attempt to get a better fit by tying the straps into "knots" to shorten them.

Taking Off N95 Respirator

Centre for Disease Control and Dept of Health and Human Services

When taking off a respirator



Front of respirator may be contaminated —DO NOT TOUCH!

1



Grasp bottom strap and pull over back of head without touching respirator, then with top strap and carefully remove

2



Discard in waste container and wash your hands thoroughly after removing the respirator.

3

WASH YOUR HANDS THOROUGHLY AFTER REMOVING THE RESPIRATOR

Appendix H: Facial (eye) Protection

BC Centre for Disease Control (2004)

Facial Protection Use Guide:

Masks type should be selected by intended use...

- A fluid resistant surgical or procedural mask should be worn to protect mucous membranes from splashes of body fluids.



- If protection is required from airborne or aerosolized pathogens then a NIOSH approved N95 respirator must be worn[†]. Masks that meet this standard will have this printed on them.



- Eye protection can be provided with safety glasses, goggles or face shields.
- In any situation that a mask is worn as a barrier against exposure to blood or body fluids, eye protection should be worn as well.



- Prescription eyeglasses are not considered adequate eye protection.
- Eye protection should be cleaned if it has been contaminated with body fluids.

*Eye protection should be cleaned per manufacturer's recommendations, between each patient (wiping with alcohol is usually fine but it depends on the type of material glasses are made of), or disposed of.

Appendix I: Sequence for Putting on/Taking off PPE for Exposure to Body Fluids

SEQUENCE for PUTTING ON FULL PPE for Exposure to Body Fluids (not specific to ILI PPE)

Before entering exam room:

1. Wash hands or use alcohol-based hand rub
2. Gown first
3. Then put on surgical mask or N95 respirator
4. Put on goggles or face shield
5. Put on gloves

SEQUENCE for REMOVING FULL PPE (not specific to ILI PPE)

At doorway, before leaving patient room (but remove mask/respirator outside room):

1. Gloves off first
2. Remove gown and discard in appropriate receptacle
3. Hand hygiene
4. Use a paper towel to grasp door handle
5. Remove face shield or goggles
6. Remove surgical mask or N95 respirator
7. Hand hygiene

HOW TO PUT ON AND TAKE OFF

Personal Protective Equipment (PPE)



How to put on PPE (when all PPE items are needed)



Step 1

- Identify hazards & manage risk. Gather the necessary PPE.
- Plan where to put on & take off PPE.
- Do you have a buddy? Mirror?
- Do you know how you will deal with waste?



Step 2

- Put on a gown.



Step 3a

- Put on face shield.

OR

Step 3b

- Put on medical mask and eye protection (e.g. eye visor/goggles)



+



Note: If performing an aerosol-generating procedure (e.g. aspiration of respiratory tract, intubation, resuscitation, bronchoscopy, autopsy), a particulate respirator (e.g. US NIOSH-certified N95, EU FFP2, or equivalent respirator) should be used in combination with a face shield or an eye protection. Do user seal check if using a particulate respirator.



Step 4

- Put on gloves (over cuff).

How to take off PPE

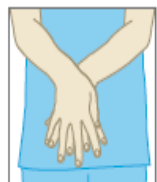


Step 1

- Avoid contamination of self, others & the environment
- Remove the most heavily contaminated items first

Remove gloves & gown

- Peel off gown & gloves and roll inside, out
- Dispose gloves and gown safely



Step 2

- Perform hand hygiene



Step 3a

If wearing face shield:

- Remove face shield from behind
- Dispose of face shield safely



Step 3b

If wearing eye protection and mask:

- Remove goggles from behind
- Put goggles in a separate container for reprocessing
- Remove mask from behind and dispose of safely



Step 4

- Perform hand hygiene

Reproduced from "Infection prevention and control of epidemic- and pandemic-prone acute respiratory diseases in health care: WHO interim guidelines" available at http://www.who.int/csr/resources/publications/WHO_5-2_IPR_2007_5/en/index.html

Appendix J: General Cleaning Instructions

Careful vigorous cleaning of environmental surfaces is effective in removing many contaminants from surfaces.

Damp rather than dry dusting or sweeping should be performed, whenever possible.

Vacuum cleaners, equipped with exhaust filters, preferably HEPA filters, should be used on carpeted areas. Expelled air from vacuum cleaners should be diffused so that it does not aerosolize dust from unclean surfaces. Built-in vacuums are ideal. (N.B. This is more important for norovirus, which can remain infectious in carpets for weeks, than it is for influenza.)

During wet cleaning, cleaning solutions and the tools with which they are applied soon become contaminated. Therefore, a routine should be adopted that does not redistribute microorganisms. This may be accomplished by cleaning less heavily contaminated areas first and also by changing cleaning solutions and cloth/mop heads frequently.

Wet mopping is most commonly done with a double-bucket technique, i.e., one bucket for soil, one for rinsing. This technique extends the life of the solution because fewer changes are required. When a single bucket is used, the solution must be changed more frequently because of increased soil.

Tools used for cleaning and disinfecting must be cleaned and dried between uses.

Mop heads should be laundered daily. All washed mop heads must be dried thoroughly before storage or reuse.

SAMPLE CLEANING SCHEDULE				
Week of _____		Exam Room Number _____		
	Check each time cleaned (AM)	Midday cleaning	Check each time cleaned (PM)	End of day cleaning
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

Appendix K: Disinfectants

BC Centre for Disease Control (2004)

INTERMEDIATE LEVEL DISINFECTANTS:

Disinfectant/Use	Advantages	Disadvantages
Alcohols (Ethanol preferred as works against both influenza and norovirus) Intermediate level disinfectant Disinfect thermometers, external surfaces of some equipment	Fast acting No residue Non staining	Volatile Evaporation may diminish concentration May harden rubber or cause deterioration of glues Intoxicating
Chlorine Intermediate level disinfectant Disinfect environmental surfaces (1:50 bleach) Following blood spills; (1:10 bleach) used to decontaminate area after blood has been removed	Low cost Fast acting Readily available in non hospital settings	Corrosive to metals Inactivated by organic material Irritant to skin and mucous membranes Use in well-ventilated areas Shelf life shortens when diluted

LOW LEVEL DISINFECTANTS:

Disinfectant/Use	Advantages	Disadvantages
Hydrogen peroxide Low level disinfectant (3%) High level disinfectant (6%)	Strong oxidant Fast acting Breaks down into water and oxygen	Can be corrosive to aluminum, copper, brass or zinc Surface active with limited ability to penetrate
Phenolics Low/intermediate level disinfectants Clean floors, walls and furnishings	Leaves residual film on environmental surfaces Commercially available with added detergents to provide one-step cleaning and disinfecting	Do not use in nurseries Not recommended for use on food contact surfaces May be absorbed through skin or by rubber Some synthetic flooring may become sticky with repetitive use

To achieve a level of at least 100 ppm of residual chlorine with household bleach, 2 mL of household bleach should be added for every liter of water. Bleach solutions should be freshly mixed before use.

Appendix L: Example of a General Telephone Welcome Message on Automated Attendant System

“You have reached Drs A/B/C’s office. Please listen to the following options before making a selection.

If you are calling due to symptoms of fever and cough, please press <1>.

If you are calling due to general questions about pandemic influenza, please press <2>.

If you are calling to book an appointment and have no fever and no cough, press <3>.

For other inquiries press <4>”.

As appropriate, depending on number entered by patient:

<1> If you have fever and cough, please [indicate office approach to fever and cough]...

<2> For up-to-date information on pandemic influenza, please visit HealthLink BC

<3> Et cetera, as per your office preferences.

Appendix M: Private Physician Office Personal Protective Equipment (PPE)

An unknown proportion of the public will present to private physicians' offices for pandemic influenza assessment. Physicians, staff and patients will require some forms of personal protective equipment depending on patient symptoms, staff proximity to symptomatic patient, and procedures being performed.

Provincial policies may affect the proportion of the public seeking assessment for pandemic influenza at their family physicians' offices. Current provincial projections are that approximately 25% of the population will become ill, of which 12% of those individuals may require medical assessment.

Assuming also that one in four pandemic influenza patients presents with a companion and that some seasonal influenza patients might also be present in the community (above and beyond pandemic influenza), numbers of PPE required for clinical practices of various sizes are estimated below. It is assumed that one of every ten pandemic influenza patients might require that an N95 respirator (as per current PHAC guidance) be used. Masks and eye protection in parallel with hand hygiene remain key elements in infection control.

The assumptions for which the PPE estimates (below) have been derived, are being reviewed nationally based on continual assessment of the evolving epidemiology, and are therefore subject to change (at which time an update will be posted). In addition, various provincial policy decisions may affect these estimates, particularly if patients are requested to present to alternative sites instead of their family physicians' offices. Medical clinics should also consider the proportion of high-risk patients they typically have (including pregnant women) which may influence the types and amount of PPE required. Given so many variables, the ordering of PPE supplies will be at the physician's discretion, however, it is recommended that each medical clinic ensures the availability of such supplies.

Approximate Additional PPE Numbers for Pandemic Influenza Preparedness by Size of Practice¹

Family practice SIZE (5-10 pairs of goggles are also suggested per physician)	Surgical Masks (for MOAs, nurses, physicians, patients, and companions)	N95, Gowns, & Gloves (for physicians)
1,000 patients	261 – 387	6 – 9

Adapted from original work by: Timothy Foggin, MD MPH

¹ These calculations are subject to change depending on development of an updated National Pandemic Influenza Response Plan if it contains different illness assumptions, or changes in provincial planning assumptions as more research on antiviral effectiveness and timing of likely vaccine availability become available.