

11A: Influenza Assessment, Treatment and Referral Centre Tools

Contents:

1. Guidelines for Developing Influenza Assessment, Treatment and Referral Centres
 1. Introduction
 2. Function of an Influenza Assessment, Treatment and Referral Centre
 3. Establishing an Influenza Assessment, Treatment and Referral Centre
 4. Criteria for Opening an Influenza Assessment, Treatment and Referral Centre
 5. Site Management
 6. Staff Requirements
 7. Infection Prevention and Control Measures
 8. Clinical Management
 9. Security and Traffic Control
 10. Overnight Service/Stays
2. Triage Zone Matrix
3. Transfer Protocol from an Influenza Assessment, Treatment and Referral Centre to an Acute Care Hospital
4. Primary Assessment Record – Adult

Guidelines for Developing Influenza Assessment, Treatment and Referral Centres

1. Introduction

During an influenza pandemic, about 35% of the population will develop influenza. Depending on the severity of the pandemic, between 1.8 and 3.3 million Ontarians will be sick enough to require an outpatient visit, and between 19,000 and 66,000 will have to be hospitalized. Existing health care services will be able to meet some of the demand for influenza-related care, but communities will have to develop innovative ways to provide care and keep the health care system from being overwhelmed.

Establishing temporary community-based Influenza Assessment, Treatment and Referral Centres (Flu Centres) will help give the public easier access to influenza services and reduce some of the pressure on existing services. These guidelines will help communities plan and implement Flu Centres and should be adapted to meet local needs. Communities that have already developed a plan to respond to the increased demand for health care services during a pandemic should use their existing plan.

Note: These guidelines are for Flu Centres that would provide services 18 hours a day; however, section 10 (Overnight Service/Stays) provides information for communities considering Flu Centres that have the capacity to operate 24/7 and provide overnight treatment/stays.

2. Function of an Influenza Assessment, Treatment and Referral Centre

A Flu Centre is a site that is currently not an established health care service or is an established health care site that usually offers a different type or level of care. Flu Centres will:

- provide a consistent approach to assessing patients with influenza-like symptoms
- triage and refer patients to the appropriate type and level of care
- provide access to self-care information and treatment for patients who are not ill enough to require hospital care
- distribute antivirals.

These guidelines were developed to help local planners develop Flu Centres to provide these basic functions. Communities may choose to provide more advanced patient care, such as overnight treatment/ stays or advanced assessment/ treatment procedures. If they do, planners will have to consider the more robust skill sets that will be required.

3. Establishing Influenza Assessment, Treatment and Referral Centres

Administrative Options

A Flu Centre may be a satellite of an existing health care facility or a free-standing site. A satellite is preferable because administrative and clinical structures are already in place including:

- systems for ordering, tracking, and maintaining equipment and supplies
- record keeping and patient tracking systems
- nursing protocols and patient care guidelines
- access to expertise and human resources
- access to services such as laboratory, pharmacy, laundry, and food services

- referral networks
- liability, workers compensation, and other insurance programs.

Free-standing Flu Centres would have to address all of the above and develop partnerships with acute care hospitals to support patient referrals and transfers.

Site Selection

During the interpandemic period, Advisory Committees should conduct regular community-wide space and site assessments, and maintain a list of preferred sites for Flu Centres. The list should include back-up sites in case the preferred sites are not available or more capacity is required during the pandemic. Possible locations include:

- schools
- hotels/motels
- convention centres
- meeting halls
- aircraft hangers
- military facilities/armouries
- churches
- surgical centres/medical clinics
- community/recreation centres
- sports facilities/stadiums
- convalescent care facilities
- trailers
- fairgrounds
- tents
- government buildings
- warehouses.

Criteria for Site Selection

When selecting a site for a Flu Centre, consider the following

Infrastructure

- Are doors/corridors wide enough to accommodate gurneys?
- Is the site wheelchair accessible?
- Is there a loading dock?
- Is there adequate free parking for staff and visitors?
- Are there enough toilet facilities?
- Is the building structurally sound?

Total Space and Layout

- Are there large rooms on the ground floor?
- Are there areas for registration, triage, treatment, pharmacy, ambulatory, and non-ambulatory services?
- Is there space to set up accessible hand hygiene stations in multiple locations around the site?
- Are there family areas?
- Is there space that can be used for serving refreshments or food for staff?
- Are there areas for equipment storage?
- Is there adequate administrative space (i.e., staff rooms; space for team debriefings, staff updates, and training sessions; links with public health; space for communication functions)?
- Will the space accommodate a single public entrance as well as separate exits for patients being discharged to the community and for patients being transported to hospital?

Utilities

- Is the space gas heated? (preferred)
- Is the site equipped with a power generator?
- Is there adequate ventilation and air conditioning?
- Is there adequate lighting?

- Is it possible to make laundry arrangements?

Communication

- Is the site wired for information technology / Internet access?
- Are there enough phones with long distance capability?
- Is there an intercom system?
- Is there the capacity to use two-way radio systems?

Other Requirements

- Is it possible to lock down the site?
- Is the site publicly owned? (preferred)
- How quickly can the site be converted into a care centre?
- Is the site located in a well-known, accessible area? (e.g., major road ways)

- Is it close to a hospital emergency department?
- Can oxygen be delivered to the site?
- Can arrangements be made for biohazard and other waste disposal?
- Is building security adequate?
- Does it meet National Building Code standards?

Table 11A.1 is a selection matrix tool that can be used to grade and compare a number of potential sites. Evaluation factors can be modified based on the potential timing of the pandemic (i.e., summer versus winter) and needs of the community. The weights are based on a 0 to 5 rating scale (bad to good).

When sites are selected, the Advisory Committee should negotiate agreements to use the facility in advance of a pandemic.

Table 11A.1 Assessment and Treatment Centre Selection Matrix

Potential Sites:	Aircraft Hangers	Churches	Community /Rec. Centres	Convalescent Care Facilities	Convention Facilities	Fairgrounds	Government Buildings	Hotels/Motels	Meeting Halls	Military Facilities	Surgical Centers/Clinics	Schools	Sports Facilities/Stadiums	Trailers/Tents (Military, etc.)	Others
Factors:															
Infrastructure															
Doors/corridors adequate size for gurneys															
Floors															
Loading dock															
Parking for staff and visitors															
Roof															
Toilet facilities (#)															
Ventilation															
Walls															
Total Space and Layout															
Auxiliary spaces (Rx, counsellors, chapel)															
Equipment/supply storage area															
Family area															
Food supply and prep area															
Mortuary holding area															
Pharmacy area															
Staff areas															
Utilities															
Air conditioning															
Power supply (backup?)															
Heating															
Lighting															
Refrigeration															
Water (hot?)															
Communication															
Communication (# phones, local/long distance, intercom)															
Two-way radio capability to main hospital															

Potential Sites:	Aircraft Hangers	Churches	Community /Rec. Centres	Convalescent Care Facilities	Convention Facilities	Fairgrounds	Government Buildings	Hotels/Motels	Meeting Halls	Military Facilities	Surgical Centers/Clinics	Schools	Sports Facilities/Stadiums	Trailers/Tents (Military, etc.)	Others
Wired for IT and internet access															
Other Services															
Ability to lock down facility															
Accessibility/proximity to public transportation															
Biohazard and other waste disposal															
Laundry															
Ownership/other uses during disaster															
Oxygen delivery capability															
Proximity to main hospital															
TOTAL RATING/RANKING (Largest number indicates best site)															

Rating System

- 5 Equal to or same as hospital.
- 4 Similar to that of a hospital, but has SOME limitations (i.e., quantity / condition).
- 3 Similar to that of a hospital, but has some MAJOR limitations (i.e., quantity / condition).
- 2 Not similar to that of a hospital, would take modifications to provide.
- 1 Not similar to that of a hospital, would take MAJOR modifications to provide.
- 0 Does not exist in this facility or is not applicable to this event.

Source: Denver Health and the Rocky Mountain Regional Model for Bioterrorist Events Working Group

Site Insurance

The Advisory Committee/lead agency must make arrangements for appropriate insurance coverage to use the site to provide health care services. Coverage should

include fire, damage, theft, and site liability insurance. If the Flu Centre is a satellite site, investigate extending the sponsoring organization’s existing insurance program to cover the satellite site.

Equipment and Supplies

At the time of a pandemic, the province will fund all Flu Centre expenses, including costs associated with procuring equipment and supplies. The province will take responsibility for direct procurement of SOME equipment and supplies for Flu Centres (see below); local Advisory Committees/lead agencies will be responsible for procuring other supplies. Local planners will be reimbursed for their expenses at the time of a pandemic.

See Table 11A-2 for the equipment and supplies required for Flu Centres are identified below, as well as whether the supplies will be procured provincially or locally. **Note: Supplies marked with * may not be required, depending on local decisions** on the extent of services to be provided at the flu centre.

During the interpandemic period, the Advisory Committee/lead agency should identify sources for the equipment and supplies they are responsible for procuring and discuss with suppliers their ability to meet anticipated needs at the time of a pandemic.

The National Emergency Stockpile System (NESS) was developed primarily for use in crises where there is a sudden need for supplies and equipment to deal with a large number of people with varying medical needs. The components of the kits are packaged and stored in warehouses across Canada to facilitate timely distribution. In the event of a local emergency that overwhelms municipal resources, municipalities may contact provincial emergency management authorities to access the supplies. Potential access to NESS supplies should be considered during planning. **However, as a pandemic will likely occur simultaneously in a number of communities across the province, the NESS**

will not be able to meet all needs and communities should have other supply sources.

Planning Formula

The following formulae have been developed to help the province calculate the quantities of personal protective equipment (PPE) required to deliver patient care at Flu Centres:

For Flu Centre Staff:

PPE (N95 respirators, gowns, eye protection)

= # staff/shift X 4 PPE changes/shift¹ X 3 shifts/day X 56 days X # Flu Centres

Gloves

= # staff/shift X # patient interactions/staff X 3 shifts/day X 56 days X # Flu Centres

For patients and caretakers:

Surgical masks

= [1 mask/patient X # patients (based on OHPIP projections for outpatient visits)] X 2

For more information on the assumptions underlying these formulae, see section 6 of these guidelines. These formulae will be used by the province during the interpandemic period to establish PPE stockpiles.

¹ Flu Centre staff should change PPE according to routine practices; 4 PPE changes/shift is provided as an average number of PPE changes over a 6-7 hour shift.

Table 11A-2: Procurement Responsibilities

Provincial responsibility	Local responsibility
Hand Hygiene <ul style="list-style-type: none"> • Liquid soap • Alcohol hand rub • Paper towels • Dispensers for soap and alcohol hand rub 	Cleaning Supplies <ul style="list-style-type: none"> • Garbage bags • Garbage cans • One-use paper towels • Specialized disposal bags for vomit/ diarrhoea • Laundry soap and/or laundry bags • Mops • Buckets
Personal Protective Equipment <ul style="list-style-type: none"> • Surgical/procedure masks (adult and child) • N95 respirators • Paper gowns • Non-latex exam gloves • Eye protection • 	Paper Products <ul style="list-style-type: none"> • Paper square absorbent examination table cover • Paper cups •
Vital Signs Assessment <ul style="list-style-type: none"> • Thermometers (disposable thermometers or disposable covers) • Stethoscopes • *Blood pressure cuffs (adult and child) • *Oxymeter and probes • Tongue depressors • Flashlights (medical) • 	Other medical supplies <ul style="list-style-type: none"> • First aid kit • Body bag/gurney • *Cots/mats • Blankets (disposable) • CPR valve • Bag valve mask resuscitator • *Automatic External Defibrillator • Assessment forms • Adverse reaction forms • Self-care/ education materials (multi-language) • Facial tissues • Wheel chairs • *Exam tables •
Disinfectants <ul style="list-style-type: none"> • Disinfecting wipes • Surface cleaner and disinfectant • 	Administrative Supplies <ul style="list-style-type: none"> • Ticket number machine • Clipboards • Flip charts and paper • Envelopes • File boxes • Colour-coded identification badges/ vests for staff • Paper • Note pads • Pens, pencils, markers • Post-it notes • Signage • Stapler and staples • Scissors • Elastic bands • Tape • Flashlights • Portable partitions (or other material to provide private assessment areas) • Rope for cordoning areas • Saw horses/ rope cordoning stands/ traffic cones • Collapsible chairs • *Portable toilets • Toilet paper • Colouring materials for children (e.g., colouring books, crayons) • Fire extinguishers • DVDs (children's movies/ television programs) •
Antiviral Clinic Supplies <ul style="list-style-type: none"> • Medication information sheets • Paper bags (small) • 	I&IT Supplies <ul style="list-style-type: none"> • Telephones (fixed and mobile) • *Teleconferencing equipment • Computers

	<ul style="list-style-type: none"> • Printers and toner • Public announcement system/bullhorns • *2-way hand-held radios/messaging devices for key personnel and security staff • DVD/TV (for orientation/ training and waiting room) • Fax machine • Photocopier/scanner • Computer paper
<p>Pharmaceuticals</p> <ul style="list-style-type: none"> • Antivirals • *Antibiotics • *Anti-diarrhoeal medication • *Anti-nauseant medication 	<ul style="list-style-type: none"> •

4. Criteria for Opening a Flu Centre

Communities should establish criteria for when their Flu Centres will become operational. The decision to open Flu Centres will be based on epidemiology of the virus, the burden of disease (i.e., severity of the pandemic) and its impact on existing health care services, and the time it takes to set up a centre. Possible criteria include:

- confirmation of a moderate or severe pandemic in a neighbouring area
- reports from sentinel physician or walk-in clinics that they cannot accommodate all patients requesting appointments for ILI
- proportion of emergency room visits attributable to influenza
- proportion of influenza cases requiring hospitalization
- proportion of cases who normally live with high-risk individuals or who have no support at home and therefore cannot care for themselves.

5. Site Management

Command Structure

The Advisory Committee/lead agency will develop a command and control structure for the Flu Centre that can be integrated with the existing local emergency command structure. A copy of the organizational chart

should be given to all staff and posted in the Centre.

Figure 11A.1 illustrates a command structure based on the Incident Management System (IMS), an international emergency management structure that has been adopted by the Government of Ontario. The IMS consists of five components -- command, operations, planning, logistics, and finance and administration -- and three support elements that report directly to Command -- safety, liaison, and communications. The structure is simple and can be applied to any organization involved in emergency management. It also makes communication and cooperation among organizations easier and the process of managing an emergency more efficient. For example, Flu Centre planning staff will be able to communicate directly with planning staff at other health care facilities or at the Municipal Emergency Operations Centre.

The Ministry of Health and Long-Term Care is using the same organizational structure for the Ministry Emergency Operations Centre which will help improve the effectiveness and interoperability of emergency management in the province.

Advertising and Promoting the Flu Centres

For the Flu Centres to be effective in diverting people away from their primary care provider or hospital emergency

departments, the public must be aware that they exist and know how to access them. During a pandemic, public messages issued by the MOHLTC will direct people who are experiencing symptoms to call Telehealth where they will be directed, if necessary, to a Flu Centre. At the local level, the Advisory Committee should work with local health organizations and local media to ensure the public is aware of the locations of Flu Centres as well as when and how to use them.

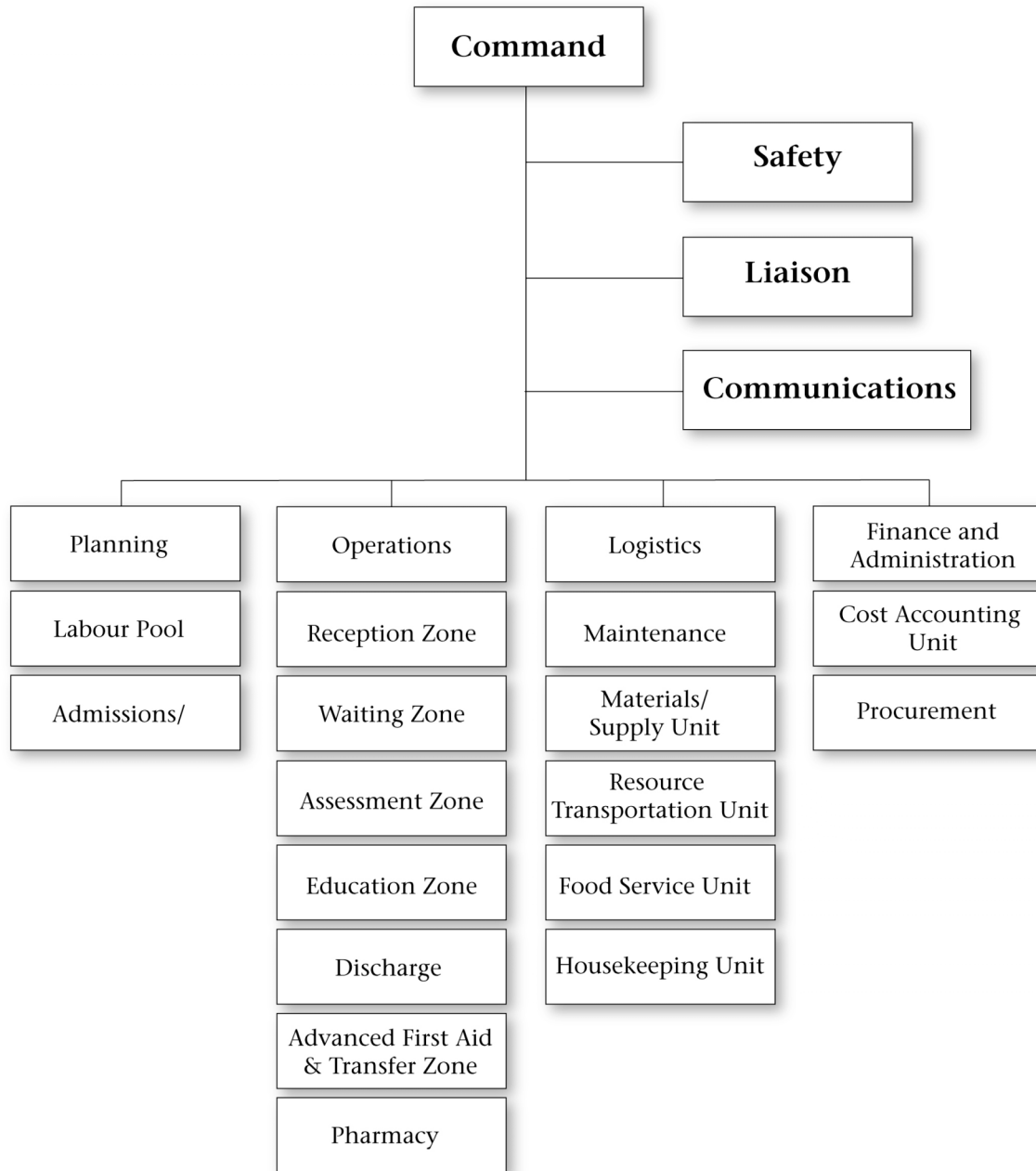
6. Staff Requirements

The number of people who can be seen at a Flu Centre will depend on the number of staff, particularly those providing nursing care. Ontario is using a competency-based (rather than a credential-based) approach to health human resources planning and deployment during an influenza pandemic (see Chapter 8). This should allow for greater flexibility in assigning tasks and deploying staff.

The competencies required at a Flu Centre include health care competencies (e.g., diagnosis, prescribing medications) as well as other competencies required to run the Centres. They fall into six broad categories:

- **Administrative/support services:** including site administration, health records management, and communications infrastructure.
- **Transportation services:** for patients. Transportation may also be needed for staff if public transit is reduced and/or to reach rural areas.
- **Education** including: education of health care workers, staff, and volunteers (including training for workers who may be extending their scope of practice); and public education on preventing influenza and self-care.
- **Infection control/occupational health and safety/surveillance:** including training in infection control and monitoring workplace safety as well as providing psychosocial and logistic support.
- **Care of ill persons:** including assessing patient status, developing a care plan, providing direct care to patients who are ill with influenza, determining whether additional care is required and determining whether the patient can be discharged from the Flu Centre.

Figure 11A.1. Influenza Assessment, Treatment and Referral Command Organization



A Flu Centre staffing model (Table 11A. 2) has been developed to summarize the functions and number of staff required to operate a Flu Centre. This model can be modified to meet the specific needs of individual communities by scaling staffing levels to the population level the Flu Centre will service. The staffing model aligns with IMS, as well as the competency-based approach described in Chapter 8. The staffing model will be used by the province to estimate equipment and supply needs (particularly for personal protective equipment) and is based on the following assumptions:

- flu Centres will be established in all jurisdictions
- flu Centres will assess 900 patients per day over an 18-hour time period
- assessment staff will spend 15 minutes/patient
- hours of operation are 6:00-24:00 with three shift changes (shift 1 is from 5:30-12:30; shift 2 is from 12:00-19:00; and shift 3 is from 18:30-00:30)
- the staffing model aims to minimize the number of staff directly in contact with clients, thereby reducing their risk of exposure to influenza. Where possible, staff will work remotely from other locations or in rooms that are separate from patient/client areas
- staff will change personal protective equipment (PPE) according to routine practices
- all staff on-site will have access to a full complement of PPE (i.e., N95 respirator, gloves, gown, eye protection)
- each patient at the Flu Centre has influenza; therefore, the goal is to protect staff from contracting influenza and not to protect the patients from each other
- each patient may be accompanied by one caretaker (e.g., parent, spouse)
- surgical masks will be worn by patients and caretakers

Table 11A.2: Flu Centre Staffing Model

Function	Skill Sets	Quantity	Location
Command			
Site Administration/ Management	Management / Administration, familiarity with Incident Management Structure	1	On-site
Safety			
On-site safety officer	Occupational health and safety background, familiarity with infection control and prevention	1	On-site
Communications			
Spokesperson - to communicate with media, etc.	Communication/language skills, public relations, medical management skills or if unavailable refer to site administrator	1	Off-site
Liaison			

Function	Skill Sets	Quantity	Location
Communication liaison between municipal and/or public health unit Emergency Operations Centre (EOC) and Flu Centre	Communication/language skills, public relations, problem solving skills	1	Off-site in the EOC
Planning			
<i>Labour Pool</i>			
Co-ordination of Patient Care - staff scheduling and support, assessing service demands and supply	Scheduling/human resources knowledge, leadership and coordination skills	1	On-site
<i>Admissions/Discharge</i>			
Medical Management	Physician or nurse/nurse practitioner with physician backup	1	On-site
<i>Training</i>			
On-site training and orientation of staff, volunteers, and family members	Knowledge of basic patient care, patient triage, infection control, occupational health and safety	1	On-site
Operations			
<i>Reception/RegistrationZone – Register incoming patients, Initiate Primary Assessment Record (PAR), Security</i>			
Receptionist	Communication/language skills, public relations, translation, basic infection control knowledge, clerical skills (including computer skills), confidentiality agreement	3	On-site
Data entry clerks	Clerical and records management skills (including computer skills), confidentiality agreement, basic infection control knowledge	1	On-site
Information technology resource	Knowledge of IT systems, problem solving skills, basic infection control knowledge	1	On-site
Greeters	Communication/language skills, problem solving skills, basic infection control knowledge	2	On-site
Public order and personal safety	Crowd control, traffic control, minimize family in attendance	2	On-site
Medical triage	Medical training/nurse, ideally with ER training	1	On-site
<i>Waiting Zone – Assist patients in completing PAR and medication list, Distribute education materials</i>			
Waiting Zone Monitors	Ability to monitor people, people skills, basic infection control knowledge, ability to assist individuals in completing the PAR	2	On-site
<i>Assessment Zone – Take vital signs, Assess chest, Complete PAR sections 2, 4, 5, 6</i>			
Patient assessment – medical/nursing	Patient assessment skills: re-hydration, ambulation, vital signs monitoring, ability to administer medication	13	On-site
Medical triage/patient flow management	Medical training/nurse, ideally with ER training	2	On-site
Public order and personal safety	Crowd control, traffic control, minimize family in attendance	2	On-site
<i>Education/Discharge Zone – Provide discharge instructions and education resources, Liaise with transfer agency, Provide assessment documents, Implement PAR Section 5 and follow-up, Security</i>			
Discharge planner	Knowledge of resources available to assist patient at home	6	On-site

Function	Skill Sets	Quantity	Location
Discharge registration clerk	Clerical skills (including computer skills), confidentiality agreement, basic infection control knowledge	4	On-site
Public order and personal safety	Crowd control, traffic control, minimize family in attendance	2	On-site
<i>Advanced First Aid and Transfer Zone – Serve patients who arrive in distress, PAR 4, 5, 6</i>			
Patient Care – advanced care paramedic/medical/nursing	Patient care skills: re-hydration, feeding, ambulation, vital signs monitoring, ability to administer medication	1	On-site
<i>Pharmacy Zone</i>			
Dispensary support staff	Pharmacist / pharmacist assistant	2	On-site
Public order and personal safety	Crowd control, traffic control, minimize family in attendance	1	On-site
Logistics			
<i>Maintenance</i>			
Maintenance of facility, etc.	Local businesses or building owner	1	On-site
<i>Materials/Supply Unit</i>			
Procure supplies and equipment for Flu Centre	Procurement background, preferably in medical-related field	1	Off-site
<i>Housekeeping Unit</i>			
Housekeeping/ environmental services	Basic knowledge of infection control, biohazardous waste disposal, Workplace Hazardous Materials Information System (WHMIS)	6	On-site
<i>Resource Transportation Unit</i>			
Transportation of supplies and equipment	Background in procurement/transportation	1	Off-site
<i>Food Service Unit</i>			
Procure drinks/ refreshments for patients	Local businesses, basic food safety training	1	Off-site
Food preparation - workers' meals	Local businesses, basic food safety training	1	Off-site
Finance and Administration			
<i>Cost Accounting Unit</i>			
Accountant	Knowledge of financial and accounting systems, computer skills	1	Off-site
<i>Procurement</i>			
Financial administrator	Knowledge of financial and accounting systems, computer skills	1	Off-site

Staff Recruitment

As part of local pandemic planning, communities should establish a registry of health care providers, non-medical staff, and volunteers who could be available to staff a Flu Centre. Potential sources of staff include:

- active primary care providers (e.g., physicians, nurse practitioners)
- public health departments
- temporary nursing agencies
- laboratories

- allied health professionals (e.g., pharmacists, therapists, dieticians)
- private ambulance companies
- allied and home health agencies
- retired health care professionals
- health professionals not working in health care or otherwise inactive
- fire/emergency/police departments
- the Canadian military
- education institutions (e.g., nursing, medical, or veterinary students)
- veterinarians
- volunteer agencies. (e.g., faith groups, Canadian Red Cross, volunteer fire departments, St. John Ambulance, Scouts, Guides).

Volunteers may play a key role in performing functions that do not require particular health care competencies (see Chapter 8: Optimal Deployment of the Health Workforce).

Emergency legislation makes provisions for the management of workers, both paid and unpaid, during a crisis. Local planners should familiarize themselves with existing legislation, especially laws related to the following topics:

- authority regarding licensing and scope of practice issues
- safety and protection of workers
- fair compensation
- insurance, both site insurance, workers compensation, and other forms of insurance
- training
- provision of clothing and equipment
- protection of the jobs of workers who take leave to assist during the pandemic.

The Advisory Committee/lead agency should also investigate compensation rates for all paid staff working at the Flu Centre. Payments should be based on current arrangements and labour agreements.

Training

Staff will require training to prepare them for their roles at a Flu Centre. Health care workers and volunteers may require training in skills such as infection control, emergency management skills/IMS, the use of personal protective equipment, self-care guidelines, stress management techniques, and the use of respirators.

As much as possible, training should be provided during the interpandemic period. For health care workers, pandemic-related training can be incorporated into existing training programs, while volunteer agencies should be encouraged and supported to start training volunteers. Potential training curricula include:

- on-line courses
- St. John Ambulance Brigade. Brigade Training System. 1997
- St. John Ambulance Brigade. Handbook on the Administration of Oxygen. 1993. ISBN 0-919434-77-0
- The Canadian Red Cross Society. Yes, You Can Prevent Disease Transmission. 1998
- nursing colleges training programs (i.e., basic care programs for health care aides)
- CHICA, APIC, and the Infection Control Association in the UK have a "tool kit" with detailed forms and templates, 2002. [Reference: "Infection Control Toolkit" - Strategies for Pandemics and Disasters, can be ordered through the Community and Hospital Infection Control Association (CHICA - Canada), Phone:

204-897-5990 or toll free 866-999-7111;
Email: chicacda@mb.sympatico.ca].

Support

Health care workers, patients, family members, and the general public may experience acute stress during the pandemic. Mental health services must be available on-site to help people with their mental health needs.

Protocols must also be in place to assist patients with non-medical needs, like housing, employment, food, and spiritual guidance. Social workers, religious leaders, community officials, and volunteer agencies can all be engaged in these activities.

7. Infection Prevention and Control Measures

Each Flu Centre must establish occupational health and safety, and infection prevention and control policies and procedures to minimize transmission and protect staff, patients, and visitors. According to the command structure outlined earlier, Flu Centres should have a designated safety section responsible for infection prevention and control measures at the site, including:

- providing education
- ensuring hand hygiene supplies (e.g., alcohol-based hand rub) are readily available
- posting signs about routine infection prevention and control measures (e.g., hand hygiene, cough etiquette)
- providing guidance on personal protective practices and equipment
- establishing and maintaining cleaning procedures and a regular cleaning schedule for workspace and equipment that will support the operation of the Flu Centre

- working with other health care workers in the community to implement and reinforce an awareness campaign about routine infection prevention and control practices that can prevent the spread of respiratory illness.

For information on recommended occupational health and safety and infection prevention and control measures – including environmental cleaning, see Chapter 7.

8. Clinical Management

Patient Triage

Providing assessment and triage services at Flu Centres will not only reduce the pressure on hospital emergency departments, family physicians, and walk-in clinics, it may reduce public exposure by keeping influenza-like illness contained in a small number of sites in the community.

The MOHLTC has developed a Primary Assessment Record that Flu Centres will use to assess patients face-to-face and direct them to the right level of care. With this system, Flu Centres will direct patients who need a higher level of care to acute care hospitals. The MOHLTC is currently developing a standard screening tool that will be used by all health care settings to screen people by phone and determine whether they should be counseled about self care, referred to a Flu Centre or referred to a hospital.

Patient Tracking

Flu Centres that are satellites of an existing health care facility will use the facility's patient tracking system. Stand-alone Flu Centres must develop patient tracking protocols. All patients must be tracked through the process. Information to be obtained includes:

- a patient identification number

- name
- date of birth
- address
- phone number
- emergency point of contact
- medical history.

Flu Centres will also be responsible for participating in surveillance activities, as directed by the local public health unit (e.g., adverse events related to antivirals and vaccines, number of outpatient visits, number of deaths). See Chapter 5 for more information on surveillance activities during the pandemic period.

Transportation

Flu Centres must have transportation protocols for transferring patients and personnel. See appendices for a sample protocol for transferring patients from a Flu Centre to an acute care facility. Issues to consider include: transportation between hospital facilities and the Flu Centre, recording of all arrivals and departures to and from the Centre, coordinating transportation to patients' homes, and overseeing ambulance services. All patient transfers to other health care settings (e.g., hospital, long-term care facility) will need to be arranged through the Provincial Transfer Authorization Centre. Because EMS may be operating at full capacity, Flu Centres may have to use non-traditional forms of transportation (e.g., volunteer drivers).

Provisions for Children

Children have special needs, both physically and psychologically, that Flu Centres must take into account in the way they organize space and deploy staff (see Chapter 18 Paediatric Services). For example, Flu Centres should:

- cohort children in the same treatment subunit

- minimize separation from parents and involve family members in the child's care as much as possible
- ensure health care workers who have childcare experience are available
- procure pediatric equipment and supplies.

9. Security and Traffic Control

Flu Centres will require security – particularly if they are distributing antivirals and vaccine – and to assist with patient flow through the Flu Centre. Flu Centres should also develop traffic control procedures, including controlling the entrance and exits, directing traffic around the site, maintaining controlled points of entry for staff and patients, establishing secure sites for staff and patient parking, and securing ambulance staging and supply delivery zones.

10. Overnight Service and Stays

Most Flu Centres will operate extended daytime hours – 18 hours a day -- to meet the population's health needs. However, based on the community's needs, some Flu Centres may have to operate 24 hours a day, 7 days a week, and will have to take additional steps to plan and provide services.

Function of an Overnight Assessment and Treatment Centre

Flu Centres established to provide overnight care could play the following roles:

- act as a temporary influenza hospital for the care of patients who are not critically ill but not well enough to return home
- provide housing/ care for influenza patients who live alone or who live with

someone at high risk of complications from influenza

- act as “step down” units and provide care for stable patients who have been transferred from acute care hospitals but are not well enough to go home.

The level of care provided at an overnight Flu Centre should be limited to supportive or palliative care. Critical care should remain the domain of an acute care facility.

Site Selection

When choosing a site for an overnight Flu Centre, the Advisory Committee/lead agency should consider the following (in addition to the earlier criteria for site selection):

- Does the site have large areas suitable for setting up (multiple) treatment units and enough space to allow treatment beds to be located at least one metre apart?
- Does the site have space to accommodate enhanced food preparation/service facilities to provide meals for patients?

- Does the site have adequate showering and bathing facilities?

Planners should modify the selection matrix in Table 11A.1 to reflect the specific needs of their community.

Equipment and Supplies

The services and level of care the Flu Centre offers will dictate equipment and supply needs. See Chapter 10 for more information on equipment and supply requirements.

Staff Requirements

The Advisory Committee/lead agency will have to determine the human resources required to operate a Flu Centre 24 hours a day/7 days a week over the period of a pandemic wave (i.e., about 8 weeks). To do this, the Advisory Committee should identify the level of care to be provided, the competencies required to deliver that care, job descriptions and the number of staff and volunteers required. (See: 6. Staff Requirements in this chapter: and Chapter 8, Optimal Deployment of the Health Workforce.)

Triage Zone Matrix

Zone	Service Patient Assessment Record (PAR)	Skill Set Required	Source	Equipment Required (In addition to protective wear for staff)	Tools to be Developed	<i>Patients not Suitable for Assessment</i>
<i>Registration Zone</i>	Register in-coming patients Initiation of Primary Assessment Record (PAR): Personal Information Security	computer literate people skills work under pressure translators ability to maintain order ability to use PPE English language skills	NGO	computer stations automated translation centres	Registration document* Training for volunteer***	
<i>Waiting Zone</i>	Awaiting Primary Assessment PAR History (patient with help from volunteer) Medication List (patient with help from volunteer) Distribution of educational materials	people skills work under pressure ability to monitor patients	NGO	easy-to-clean chairs	Training for volunteer** Assessment forms* Medication List	
<i>Assessment Zone</i>	Vital signs PAR Assessment Section 4 Chest auscultation and assessment PAR Assessment Section 2, Orders Section 6 and Discharge Section 5	able to take temperature, blood pressure, pulse, respirations able to interpret chest sounds and complete assessment translators make diagnoses prescribe meds ability to recommend treatment plan	NGO Health professional: NP/RN/RT from community Local community volunteers	electronic or disposable thermometers BP cuffs and stethoscopes	Training for volunteer** Assessment Forms*	stabilized for transfer to other setting
<i>Advanced First Aid & Transfer Zone</i>	Service to patients who arrive in distress (or are directed to zone) including oxygen, suction, etc while they await transfer to emergency department PAR Assessment Section 4, Orders Section 6 and Discharge Section 5	Advanced first aid Judgment Ability to deal with distressed people Advanced care paramedic/physician/nurse practitioner from community ability to recommend treatment plan prescribe meds		CPR equipment		stabilized for transfer to other setting
<i>Education Zone</i>	Discharge instructions Educational resources PAR Section 5	identify appropriate discharge material/information Training / teaching skills translators	NGO local community volunteers		Development of discharge information in multiple languages* Training for volunteer**	

Zone	Service Patient Assessment Record (PAR)	Skill Set Required	Source	Equipment Required (In addition to protective wear for staff)	Tools to be Developed	<i>Patients not Suitable for Assessment</i>
<i>Discharge Zone</i>	Liaison with transfer agency: provision of assessment document(s) PAR Section 5 Follow-up as per PAR Security	organization skills telephone skills office skills ability to assess activities of daily living (ADL) capacity & home support ability to dispense anti viral medications	NGO		Transfer protocol* Training for volunteer**	

* Provincial Responsibility

** Local Responsibility

Transfer Protocol from Flu Centre to an Acute Care Facility

The movement and transfer of patients with influenza should be limited as much as possible; however, influenza patients with severe complications who arrive at Flu Centre must be transported to an acute care facility – which may be in a separate institution, a separate part of the same institution, or within the same building. When transporting patients from a Flu Centre to an Acute Care facility, the following transfer protocol should be followed:

A. Flu Centre and Hospital are Located in Separate Institutions

1. The facilitating nurse or designate will coordinate the transport by calling:

- the receiving department or unit to ensure the patient's/procedure room is ready and staff will be ready to receive the patient on arrival
- the Provincial Transfer Authorization Centre (PTAC) to obtain an infectious disease referral medical transfer (MT) authorization for the inter-facility movement of the patient by ambulance or private medical transportation service
- the ambulance or private medical transportation service provider, advising them in advance about the personal protective equipment requirements and precautions to be taken
- respiratory therapists(s) if the patient has O₂ saturation level less than 95% or is on oxygen
- security to ensure designated routes for transport of influenza patients are followed (these routes must be separate from main traffic route/s).

2. Precautions will be taken in preparation for transport:

- Patients must wear a surgical mask during transport.
- Trolley/wheelchair must be lined with disposable sheet.
- Transport and facility staff must wear full personal protective apparel (i.e., hair cover, single gown, gloves, protective eye wear, N95 respirator).

3. All medications/equipment not directly attached to patient and required for patient care must be transported in a biohazard bag.

4. Patients will follow a specific transfer route.

- Administration/management will establish dedicated entry and internal pathways for transferring severely ill patients (e.g., dedicated elevators, corridors, entrances, exits).
- Patients will be escorted out of the Flu Centre by paramedics. If a medical transportation service is utilized, the patient will be escorted out of the Flu Centre by both medical personnel and medical transport staff.
- Upon arrival at the hospital, the designated route for the transport of influenza patients will be followed.

5. Only those staff members required for the transport (i.e., paramedics or medical personnel/attendant staff) will be allowed to accompany the patient along the pre-designated alternate transportation route/s.

6. Site administrators or designate will document the following:

- date of transport
- time of transport

- patient name
- location of where transport was initiated and ended
- names of health care workers involved (e.g., porter, nurse)
- signature of security personnel documenting transport.

7. Environmental services must ensure effective cleaning of all contaminated surfaces:

- Wipe surfaces of the trolley / wheelchair with disinfectant after use.
- Wipe any other surfaces that came into contact with the influenza patient.

B. Flu Centre and Hospital are in Separate Parts of the Same Institution

1. The facilitating nurse or designate will coordinate the transport by calling:

- the receiving department or unit to ensure the patient's / procedure room is ready and staff are ready to receive the patient
- the ambulance or private medical transportation service provider, advising them in advance about the personal protective equipment requirements and precautions to be taken
- respiratory therapists(s) if the patient has O₂ saturation level less than 95% or is on oxygen
- security to ensure designated route/s for transport of influenza patients are followed (these routes must be separate from main traffic route/s).

2. Precautions will be taken in preparation for transport:

- Patients must wear a surgical mask during transport.
- Trolley / wheelchair must be lined with disposable sheet.

- Transport and facility staff must wear full personal protective apparel (i.e., hair cover, single gown, gloves, protective eye wear, surgical mask).

3. All medications/equipment not directly attached to patient and required for patient care must be transported in a biohazard bag.

4. Patients will follow a specific transfer route.

- Administration / management will establish dedicated entry and internal pathways for transferring severely ill patients (e.g., dedicated elevators, corridors, entrances, exits).
- Patients will be escorted out of the Flu Centre by paramedics. If a medical transportation service is utilized, the patient will be escorted out of the Flu Centre by both medical personnel and medical transport staff.
- Upon arrival at the hospital, the designated route for the transport of influenza patients will be followed.

5. Only those staff members required for the transport (i.e., paramedics or medical personnel/attendant staff) will be allowed to accompany the patient along the pre-designated alternate transportation route/s.

6. Site administrators or designate will document the following:

- date of transport
- time of transport
- patient name
- location of where transport was initiated and ended
- names of health care workers involved (e.g., porter, nurse)
- signature of security personnel documenting transport.

7. Environmental services must ensure effective cleaning of all contaminated surfaces:

- Wipe surfaces of the trolley / wheelchair with disinfectant after use.
- Wipe any other surfaces that came into contact with the influenza patient.

C. A Flu Centre is Located within the Hospital

1. The facilitating nurse or designate will coordinate the transport by calling:

- the receiving department or unit to ensure the patient's / procedure room is ready and staff are ready to receive the patient
- porter / s to notify them that an influenza patient requires transport with proper personal protective equipment
- respiratory therapists(s) if the patient has O₂ saturation level less than 95% or is on oxygen
- security to ensure designated routes for transport of influenza patients are followed (these routes must be separate from main traffic route / s).

2. Precautions will be taken in preparation for transport:

- Patients must wear a surgical mask during transport.
- Trolley / wheelchair must be lined with disposable sheet.
- Transport and facility staff must wear full personal protective apparel (i.e., hair cover, single gown, gloves, protective eye wear, N95 respirator).

3. All medications/equipment not directly attached to patient and required for patient care must be transported in a biohazard bag.

4. Patients will follow a specific transfer route.

- Administration / management will establish dedicated internal pathways for transferring severely ill patients to be (e.g., dedicated elevators, corridors, entrances, exits).
- Patients will be escorted out of the Flu Centre by the porter / s.
- The patient will follow the designated route within the building.

5. Only those staff members required for the transport (i.e., porters) will be allowed to accompany the patient along the pre-designated alternate transportation route(s).

6. Site administrators or designate to document the following:

- date of transport
- time of transport
- patient name
- location of where transport was initiated and ended
- name(s) of health care workers involved (e.g. porter, nurse)
- signature of security personnel documenting transport.

7. Environmental services must ensure effective cleaning of all contaminated surfaces:

- Wipe surfaces of the trolley / wheelchair with disinfectant after use.
- Wipe any other surfaces that came into contact with the influenza patient

Name of patient:	
Address:	
Date of birth: / /	Age:
MRN:	
Telephone: Home: () -	Business: () -

This patient may have influenza!
(hand hygiene, gloves, eye protection, N95 respirator, and gown if close contact).

Primary Assessment Record - Adult

Patient (<i>first name, last name</i>) please print	Date (dd/mm/yy) / /	Time (hh : mm) :
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Section 1 - History

Check all that applies below and give dates when symptoms started

a.	General	When? (dd/mm/yyyy)	c.	Digestive	When? (dd/mm/yyyy)
	Fever (>38°C)	/ /		Vomiting	/ /
	Chills	/ /		Diarrhea	/ /
	Headache	/ /		Abdominal pain	/ /
	Aching muscles and joints	/ /		d. Neurological	When? (dd/mm/yyyy)
	Stiffness	/ /		Confusion, drowsiness	/ /
	Weakness	/ /		Convulsions	/ /
	Red and/or watery eyes	/ /		e. Contact	When? (dd/mm/yyyy)
	Earache	/ /		Have you had contact with someone with similar symptoms?	/ /
				<input type="checkbox"/> no <input type="checkbox"/> yes, when?	
b.	Respiratory	When? (dd/mm/yyyy)			
	Cough	/ /			
	Sore throat	/ /			
	Hoarseness	/ /			
	Stuffy or runny nose	/ /			
	Shortness of breath	/ /			
	Chest pain when taking a deep breath	/ /			

Section 2 - Allergies

1.	Reaction:
2.	Reaction:
3.	Reaction:

Section 3 - Medications

Do you take any medication (*pills, inhalers, needles, etc*) on a regular basis?
 no yes, please complete **the Medication List**.

Signature of Patient	Date (dd/mm/yyyy) / /
----------------------	--------------------------

If completed by someone other than patient Name (<i>first name, last name</i>) please print	Signature
---	-----------

Name of patient:	
Address:	
Date of birth: / /	Age:
MRN	
Telephone: Home: () -	Business: () -

Section 4 - Assessment

Clinical Case Definition

When influenza is circulating in the community, the presence of fever and cough of acute onset are good predictors of influenza. The positive predictive value increases when fever is higher than 38⁰C and when the onset of clinical illness is acute (less 48 hours after the prodromes). Other symptoms, such as sore throat, rhinorrhea, malaise, rigors or chills, myalgia and headache may also be present. Any case definitions developed prior to the pandemic may need to be modified once the pandemic occurs. A history of contact with another patient with influenza-like illness or with an influenza case confirmed by the laboratory should be sought. If present, it is of diagnostic value.

Heart Rate: _____ /min	Is HR > 100/min?	<input type="checkbox"/> no	<input type="checkbox"/> yes
Resp Rate: _____ /min	Is RR > 24/min?	<input type="checkbox"/> no	<input type="checkbox"/> yes
Blood Pressure ____ / ____ mmHg	Is systolic BP < 100 mmHg?	<input type="checkbox"/> no	<input type="checkbox"/> yes
Temperature: _____ °C	T>38 ⁰ C?	<input type="checkbox"/> no	<input type="checkbox"/> yes
SpO ₂ : _____ %	Is SpO ₂ ≤ 90%?	<input type="checkbox"/> no	<input type="checkbox"/> yes
Mucous Membranes:	Are lips/nail beds cyanotic?	<input type="checkbox"/> no	<input type="checkbox"/> yes
Chest auscultation:	Are crackles present?	<input type="checkbox"/> no	<input type="checkbox"/> yes
Mental status:	Is patient confused?	<input type="checkbox"/> no	<input type="checkbox"/> yes
Chest pain:	Does patient have chest pain?	<input type="checkbox"/> no	<input type="checkbox"/> yes
Vomiting:	Is patient vomiting > 3x's/24h?	<input type="checkbox"/> no	<input type="checkbox"/> yes

If all "no" boxes are checked, go to Section 5.

If any "yes" boxes are checked, go to Section 6a.

If patient meets any of the following criteria, apply oxygen to maintain a SpO₂ > 90% and notify MD immediately: (check all that apply)

- | | | |
|--|--|---|
| <input type="checkbox"/> SpO ₂ ≤ 90% | <input type="checkbox"/> Inability to protect airway | <input type="checkbox"/> RR > 30/min |
| <input type="checkbox"/> Clinical evidence of severe respiratory distress or impending respiratory failure | <input type="checkbox"/> Systolic BP < 90mmHg | <input type="checkbox"/> HR < 40/min or > 120/min |

Did this patient's influenza symptoms start within the last 48 hours?

- no, complete section 5, Discharge with telephone Follow-up.
 yes, complete section 6

Name of patient:	
Address:	
Date of birth: / /	Age:
MRN:	
Telephone: Home: () -	Business: () -

Patient (*first name, last name*) **please print**

Section 5 - Discharge Assessment

check all that apply

- | | |
|---|---|
| <input type="checkbox"/> Age > 65 years | <input type="checkbox"/> pregnancy |
| <input type="checkbox"/> Chronic lung disease | <input type="checkbox"/> congestive heart failure |
| <input type="checkbox"/> renal failure/dialysis | <input type="checkbox"/> immunosuppression |
| <input type="checkbox"/> haematological/blood abnormalities | <input type="checkbox"/> diabetes |
| <input type="checkbox"/> hepatic/liver disease | |

↳ If any boxes are checked, discharge home with telephone follow up in 48 hours

<input type="checkbox"/> Self care instruction sheet provided and reviewed <input type="checkbox"/> Discharge instruction sheet provided and reviewed <input type="checkbox"/> Prescription provided (see Section 6 "Orders")	Discharge date (<i>dd/mm/yyyy</i>)	Discharge time (<i>hh : mm</i>)
	/ /	:
	Assessor's (<i>first name, last name</i>) please print	
Assessor's Designation		

Assessor's signature

Name of patient:	
Address:	
Date of birth: / /	Age:
MRN:	
Telephone: Home: () -	Business: () -

Patient (*first name, last name*) **please print**

Section 6 a - Orders

Orders	Discharge date (dd/mm/yyyy)	Discharge time (hh : mm)
<input type="checkbox"/> Discharge home on self-care with self-care instructions	/ /	:
<input type="checkbox"/> Discharge home with telephone follow-up in 48 hours.	/ /	:
<input type="checkbox"/> Follow-up booked	/ /	:
<input type="checkbox"/> Discharge to hospital for Secondary Assessment.	/ /	:
<input type="checkbox"/> Transfer arranged	/ /	:
<input type="checkbox"/> PAR sent with patient	/ /	:
<input type="checkbox"/> Diagnostic testing ordered	/ /	:

Section 6 b - Prescriptions

- oseltamivir 75mg PO bid x 5 days
(*oseltamivir is recommended as first line treatment for all patients, except if on dialysis or pregnant or breastfeeding*)

First dose given of oseltamivir	
Time (hh:mm)	Assessor's initials
___ : ___	

OR

- zanamivir 10 mg (2 inhalations) bid x 5 days
(*recommended if on dialysis or if pregnant or breastfeeding*).

Warning:
zanamivir is not recommended for patients with asthma or COPD

First dose given of zanamivir	
Time (hh:mm)	Assessor's initials
___ : ___	

<input type="checkbox"/> medication provided Number of doses: _____	Date (dd/mm/yyyy) / /	Time (hh:mm) ___ : ___	Assessor's initials
--	--------------------------	---------------------------	---------------------

Physician's name (*first name, last name*) **please print**

CPSO Number

Physician's signature

Date (dd/mm/yyyy)
/ /

Original Prescription (this page): Patient

Copy/duplicate : Patient chart

Name of patient:	
Address:	
Date of birth: / /	Age:
MRN:	
Telephone: Home: () -	Business: () -

Patient (*first name, last name*) **please print**

Section 7 – Lab Orders

Please order the following:

1. CBC, K+, Na+, Cl-, HC03, Cr, Ur, glucose, AST, ALT, ALP, Tbili, CK
2. EKG & troponin if history of chest pain or cardiac disease
3. CXR (PA & lat) if SOB or cough or SpO₂ < 95% or crackles on chest auscultation