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. Recommended Number of Influenza Assessment, Treatment and Referral Centres by Region and by Attack Rate
- 5. 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 seek care 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 and triage 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
- offer vaccination clinics when vaccine becomes available.

3. Establishing Influenza Assessment, Treatment and Referral Centres

Administrative Options

A Flu Centre may be a satellite site of an existing health care facility or a freestanding site. Administratively, a satellite site 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 sterilization, 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, and showers?
- 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, laboratory work, 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 preparing and serving food?
- 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 there a laundry area or easy way to access to laundry services nearby?

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 it be converted into a care site?
- Is it 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 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.

	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/showers (#)																
Ventilation																

Table 1. Assessment and Treatment Centre Selection Matrix

Chapter #11A: Influenza Assessment, Treatment and Referral Centre Tools

	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
Walls																
Total Space and Layout																
Auxiliary spaces (Rx, counsellors, chapel)																
Equipment/supply storage area																
Family area																
Food supply and prep area																
Lab specimen handling 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																
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 disaste	er															
Oxygen delivery capability																
Proximity to main hospital																

Chapter #11A: Influenza Assessment, Treatment and Referral Centre Tools

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
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

During the interpandemic period, the Advisory Committee/lead agency should identify the critical equipment and supplies required to operate a Flu Centre. For more information on equipment and supply requirements at health care facilities, see Chapter 10. The following preliminary list of equipment and supplies is based on guidelines from the Canadian Plan for an Influenza Pandemic:

- personal protective equipment (e.g., masks, gowns, gowns, gloves, alcoholbased hand gel, hand soap, paper towels)
- beds, bedding
- lights

- intravenous equipment (e.g., needles, intravenous catheters, fluid and tubing, syringes, tape, tourniquet)
- sterilizers
- sphygmomanometer, stethoscopes, thermometers
- miscellaneous supplies (e.g., dressings, bandages, steristrips, gloves, alcohol sponges, gauze sponges, arm boards, pulse oximeter, extra batteries for equipment needs, flashlights, scissors, tongue blades, portable lamps)
- emergency crash cart for resuscitation
- airway supplies (e.g., ventilators, bagvalve-mask, oxygen masks, oxygen tubing, oxygen tank/outlet, oral airways, suction machines/outlet, and suction catheters*) Note: Flu Clinics will not support intubated patients; however, equipment may be needed to support patients who require ventilation while being transported to another facility.
- patient identification tools (armband, addressograph)
- privacy screens
- communications (telephone, cell, radio or alternatives for isolated communities, fax machine)
- computers and Internet access
- appropriate signage
- sharps containers
- janitorial and administrative supplies
- paediatric equipment supplies.

The Advisory Committee/lead agency should identify sources of these supplies; discuss with suppliers their ability to meet anticipated needs; and determine whether any supplies should be stockpiled locally. 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 activities for an ATC. However, as a pandemic will likely occur simultaneously in multiple communities across the province, the NESS will not be adequate to cover all the needs of individual communities. Thus, other supply sources should be lined up.

4. Criteria for Opening a Flu Centre

Communities should establish criteria that will be used to determine when to open Flu Centres. The decision to open Flu Centres will be triggered by the epidemiology of the virus, the burden of disease and its impact on existing health care services, and the time it takes to set up a centre. Possible criteria include:

- reports from sentinel physician or walkin clinics that they cannot accommodate all patients requesting appointments for ILI
- increase in ambulance re-routings due to full emergency rooms
- 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 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 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 as other provincial and local organizations (e.g., health care facilities), 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 and 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, medication prescription) 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, laboratory specimens, hazardous supplies (e.g., oxygen cylinders), and biomedical waste. Transportation may also be needed for staff if public transit is reduced or to reach rural areas.

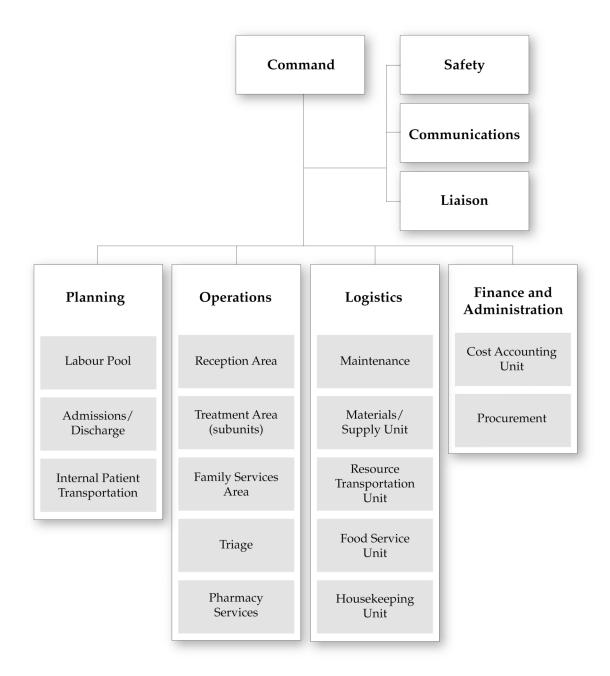


Figure 1. Influenza Assessment, Treatment and Referral Command Organization

Source: Modular Emergency Medical System: Concept of Operations for the Acute Care Center

- Education including: education of health care providers, staff, and volunteers (including training for providers 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 syndromic and laboratory-based surveillance for disease and mortality in patients, disease in staff, vaccination rates, antiviral treatment and prophylaxis, and adverse events associated with vaccination and antivirals. Training in infection control and monitoring workplace safety are

critical functions as are providing psychosocial and logistic support.

- **Care of well persons**: including providing vaccinations when vaccine becomes available.
- **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.

The following checklist of functions required at Flu Centre (Table 2) has been adapted from the Canadian Plan for an Influenza Pandemic:

Functions	Skill Sets
Administration	
Site Administration/Management	Management / Administration, familiarity with Incident Management Structure
Co-ordination of Patient Care - staff scheduling and support, assessing service demands and supply	Medical training/knowledge (e.g., in-charge nurse), leadership and coordination skills
Medical Management	Physician or nurse/nurse practitioner with physician backup
On-site training and orientation of staff, volunteers, and family members	Knowledge of basic patient care, patient triage, infection control, occupational health and safety
Spokesperson	Medical management or if unavailable, refer to hospital or site administrator
Receptionist	Communication/language skills, public relations, translation, basic infection control knowledge
Health Records Management	Clerical skills (including computer skills), confidentiality agreement, basic infection control knowledge
Information Technology Resource	Knowledge of IT systems, problem solving skills, basic infection control knowledge
Patient Care	
Medical triage	Medical training/nurse, ideally with ER training
Admissions/Discharge	Medical training/nurse, ideally with experience in discharge planning
Patient Care – medical/nursing	Instructed in nursing care: re-hydration, feeding, ambulation, bathing, vital signs monitoring, giving medications
Physiotherapy	Trained in chest physiotherapy and mobilization
Respiratory Care	Trained in oxygen delivery, patient monitoring, equipment monitoring (oximeters) and inventory
Pharmacy Services	Pharmacist at hospital or in community

Table 2: List of Functions and Skills Required at a Flu Centre

Functions	Skill Sets
Discharge planning	Knowledge of resources available to assist patient at home
Infection Prevention and Control	
Sterilization of equipment	Trained in sterilization and infection control
Housekeeping/environmental services	Basic knowledge of infection control, biohazardous waste disposal, and WHMIS
Food Services	
	Dietician at hospital or in community (home care, meals on wheels)
Food preparation - workers' meals	Basic food safety training
Social Services	
Social service / community care	Counseling, educating clients, accessing community resources, translation
Psychology/Pastoral Care/Grief Counseling	Social workers, religious leaders, psychologists, local service clubs/support groups
Care for children/family members of workers	Training or experience in child care, care for elderly, home care/criminal records check
Transportation	
Patients, Staff	Class 4 license
Dangerous goods (e.g. oxygen), medical waste	Appropriate licenses and liability insurance
Supplies, Lab tests	Drivers license, criminal records check
Services	
Laboratory testing	Laboratory services at hospital and/or provincial labs
Maintenance	Local businesses
Laundry	Local laundry business
Communication services and equipment support - phone, cells, cable, computer support, internet access, web page and information technology	Local businesses
Security	
Public order and personal safety	Crowd control, traffic control, minimize family in attendance
Protection of site - fire safety, theft	Trained in building safety and security
Staff Recruitment	• allied and home health agencies
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:	 temporary nursing agencies
• retired health care professionals	• public health departments

- health professionals not working in health care or otherwise inactive
- fire/emergency/police departments
- the Canadian military
- private ambulance companies

- veterinarians
- allied health professionals (e.g., pharmacists, therapists, dieticians, etc.)
- volunteer agencies. (e.g., faith groups, Canadian Red Cross, volunteer fire

departments, St. John Ambulance, Scouts, Guides, etc.)

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 concerning 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 financial compensation 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 Flu Centre. Health care providers may require training in skills such as infection control and vaccination procedures, emergency management skills/IMS, occupational health and safety training on the use of personal protective equipment, self-care guidelines, stress management techniques, and the use of respirators. Non-medical personnel and volunteers will need training to acquire skills required to perform their functions at the Centre.

As much as possible, training should be provided during the interpandemic period. For health care providers, 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 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 supplies (e.g., alcohol-based hand sanitizer) are readily available
- posting signs about routine infection prevention and control measures (e.g., hand washing, 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 providers 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 infection prevention and control and occupational health and safety 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 demand 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.

MOHLTC will provide screening algorithms that can be used by staff to assess patients 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; conversely, hospitals can direct patients who do not require inpatient care to a Flu Centre.

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 done through the Ontario Air Ambulance Program's 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. 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 providers with 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. Internal security can also 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):

Chapter #11A: Influenza Assessment, Treatment and Referral Centre Tools

- Does the site have large areas suitable for setting up (multiple) treatment units; and enough space to allow treatment beds to be located 1 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 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., 6 to 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.)

	Service			Equipment Required		Dationto not
Zone	Patient Assessment Record (PAR)	Skill Set Required	Source	(In addition to protective wear for staff)	Tools to be Developed	Patients not Suitable for Assessment
Registration Zone	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'**	
Waiting Zone	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	
Assessment Zone	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
Assessment Zone (Advanced - where available)	On-site specimen collection center* that would include blood, urines and respiratory specimens Assessment review PAR Assessment Section 4, Orders Section 6 and Discharge Section 5	venipuncture radiographer consolidation of assessment findings translators collect specimens order tests	private laboratory staff -private laboratory physician/nurse practitioner from community Local community volunteers	refrigeration chest x-ray equipment recitation equipment	Assessment forms*	
Advanced First Aid & Transfer Zone	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 Physician/nurse practitioner from community ability to recommend treatment plan prescribe meds		CPR equipment, oxygen, monitoring equipment		stabilized for transfer to other setting

Triage Zone Matrix

Chapter #11A: Influenza Assessment, Treatment and Referral Centre Tools

	Service			Equipment Required	Tools to be	Patients not
Zone	Patient Assessment Record (PAR)	Skill Set Required	Source	(In addition to protective wear for staff)	Developed	Suitable for Assessment
Education Zone	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**	
Discharge Zone	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 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 that 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 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, 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 predesignated 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 that 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 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, 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 predesignated 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 that 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 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, 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 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 predesignated 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.

Public Health Unit	15% Attack Rate	25% Attack Rate	35% Attack Rate
Algoma Health Unit	3	5 Alluck Rule	7
Brant County Health Unit	3	6	8
Chatham-Kent Public Health Services	3	5	6
Durham Region Health Department	15	24	34
Eastern Ontario Health Unit	5	8	12
Elgin-St. Thomas Health Unit	2	4	5
Grey Bruce Health Unit	4	7	
Haldimand-Norfolk Health Unit	3	5	7
Haliburton, Kawartha, Pine Ridge District Health Unit	4	7	10
Halton Region Health Department		19	26
City of Hamilton - Public Health & Community Services Department	11	22	31
Hastings & Prince Edward Counties Health Unit	4	7	10
Huron County Health Unit	2	3	4
Kingston, Frontenac and Lennox & Addington Health Unit	5	8	
County of Lambton Community Health Services Dept.	3	6	8
Leeds, Grenville and Lanark District Health Unit	4	7	10
Middlesex-London Health Unit	11	18	26
Regional Niagara Public Health Department	11	10	20
North Bay Parry Sound District Health Unit	3	5	7
Northwestern Health Unit	2	3	5
Ottawa Public Health	21	35	50
County of Oxford - Dept. of Public Health & Emergency Services	3	4	6
Regional Municipality of Peel Health Department	31	51	72
Perth District Health Unit	2	3	5
Peterborough County-City Health Unit	3	6	8
Porcupine Health Unit	2	4	5
Renfrew County & District Health Unit	3	4	6
Simcoe Muskoka District Health Unit	12	21	29
Sudbury & District Health Unit	5	8	12
Thunder Bay District Health Unit	4	7	9
Timiskaming Health Unit	1	2	2
Toronto Public Health	67	111	156
Region of Waterloo, Public Health	12	21	29
Wellington-Dufferin-Guelph Health Unit	7	11	16
Windsor-Essex County Health Unit	10	17	24
York Region Health Services Department	23	39	55
TOTAL: PROVINCE OF ONTARIO	320	533	746

Recommended Number of Influenza Assessment, Treatment and Referral Sites by Region by Attack Rate

Chapter #11A: Influenza Assessment, Treatment and Referral Centre Tools

Notes:

The population numbers used to determine the number of Flu Centres were calculated using FluAid 2.0 software developed by the U.S. Centers for Disease Control and Prevention and are based on a 1968-like pandemic virus. The population figures provided for each Public Health Unit are 2005 estimates based on the 2001 census.

The numbers of Flu Centres were determined using the suggested maximum number of patients who would become ill and require an outpatient visit during a pandemic.

The following assumptions were also used in the calculation formula:

- Flu Centres will be open 18 hours per day
 Average length of stay per patient: 1 hour
 Number of spots available per Flu Centre: 50
- Percent to be ill at the same time: 20%

				<u></u>			
				Name of patient:			
				Address:			
				Date of birth:	/ /		A.co.:
				MRN:	/ /		Age:
				Telephone: Home	e: () -	Business: () -
		This patient ma	y ha	ve influenza	a!		
		Use drople				(4)	
		, gloves, eye protecti	on, I	nask, and g	own if close	contact).	
	imary Assessment F				Data (dd/mm/uu)	Tim	o (bb : mm)
Pat	ient (<i>first name, last name</i>) ple	ase print			Date (<i>dd/mm/yy</i>)	1 11 11	e (hh : mm) :
Se	ction 1 - History						
	eck all that applies below an	d give dates when sympto	oms s	started			
a.	General	When? (dd/mm/yyyy)	c .	Digestive		When? (dd/mm/yyyy)
	Fever(>38°C)	/ /		Vomiting		/	/
	Chills	/ /		Diarrhea		/	/
	Headache	/ /		Abdominal pa	ain	/	/
	Aching muscles and joints	/ /	d.	Neurologica	I	When? (dd/mm/yyyy)
	Stiffness	/ /		Confusion, dr		/	/
	Weakness	/ /	-	Convulsions		/	/
	Red and/or watery eyes		e.	Contact		When? (dd/mm/yyyy)
	Earache		<u>.</u>			When (uu////////////////////////////////////
b.	Respiratory	When? (dd/mm/yyyy)		Have you had someone with	d contact with n similar		
	Cough	/ /	-	symptoms?		/	/
	Sore throat			🗌 no 🛛	yes, when?		
	Hoarseness	/ /					
	Stuffy or runny nose	/ /	1				
	Shortness of breath						
	Chest pain when taking a						
0.0	deep breath	1 1					
	ction 2 - Allergies	Deseties					
<u>1.</u> 2.		Reaction Reaction					
3.		Reaction					
Se	ction 3 - Medications						
Do	you take any medication <i>(pills,</i>	, <i>inhalers, needles, etc)</i> on a complete the Medication		ular basis?			
Sig	nature of Patient			Date (dd/mm	/ууу)	/ /	
	ompleted by someone other me (first name, last name) plea	-		Signature		, 1	

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

Section 3 - Medications continued ...

1. Allergies

I am allergic to:

2. Medications

Please list the medications you take, including the following: (the dose, how often you take it, and how you have to take it (pill, injection, etc)).

Medication List

Drug (medication name, dose, route, frequency)		continued lospital
	🗌 yes	🗌 no
3. Signature of Patient or person completing this form		

	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 38°C 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?	🗌 no	☐ yes				
Resp Rate:/min	Is RR > 24/min?	🗌 no	🗌 yes				
Blood Pressure / mmHg	Is systolic BP < 100 mmHg?	🗌 no	🗌 yes				
Temperature:°C	T>38ºC?	🗌 no	🗌 yes				
SpO ₂ :%	Is SpO₂ ≤ 90%?	🗌 no	🗌 yes				
Mucous Membranes:	Are lips/nail beds cyanotic?	🗌 no	🗌 yes				
Chest auscultation:	Are crackles present?	🗌 no	🗌 yes				
Mental status:	Is patient confused?	🗌 no	🗌 yes				
Chest pain:	Does patient have chest pain?	🗌 no	🗌 yes				
Vomiting:	Is patient vomiting > 3x's/24h?	🗌 no	☐ yes				
If all "no" boxes are checked,	go to Section 5.		_				
If any "yes" boxes are checked, go to Section 6a.							
f patient meets any of the following criteria, apply oxygen to maintain a SpO ₂ > 90% and notify MD immediately: check all that apply)							
SpO ₂ ≤ 90%	Inability to	protect airway	🗌 RR > 30/	min			
Clinical evidence of severe respiratory distress or impending respiratory failu	P < 90mmHg	☐ HR < 40/	min or > 120/min				
Did this patient's influenza symptoms start within the last 48 hours? Ino, complete section 5, Discharge with telephone Follow-up. Ino, complete section 6							



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

Patient (first name, last name) please print

Section 5 - Discharge Assessment					
check all that apply					
Age > 65 years	pregnancy				
Chronic lung disease	congestive heart failure				
renal failure/dialysis	immunosuppression				
haematological/blood abnormalities	🗌 diabetes				
hepatic/liver disease					
➡ If any boxes are checked, discharge home with telephone follow up in 48 hours					
	Discharge date (dd/mm/yyyy)	Discharge time (hh ; mm)			

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

Assessor's signature



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

Patient (first name, last name) please print

Orders		rge date n/yyyy)	Discharge time (hh : mm)
Discharge home on self-care with self-care instruction	IS /	/	:
Discharge home with telephone follow-up in 48 hours.	. /	/	:
Follow-up booked	/	/	:
Discharge to hospital for Secondary Assessment.	/	/	:
Transfer arranged	/	/	:
PAR sent with patient	/	/	:
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 Time <i>(hh:mm)</i>	oseltamivir Assessor's initials
OR			
zanamivir 10 mg (2 inhalations) bid x 5 days	<i></i> .		
(recommended if on dialysis or if pregnant or breastfe	eding).	First dose given of	1
<i>Warning:</i> zanamivir is not recommended for patients wit	th asthma or COPD	Time (hh:mm)	Assessor's initials
medication provided	Date (<i>dd/mm/yyyy</i>)	Time (hh:mm)	Assessor's initials
Number of doses:	/ /	:	
Physician's name (first name, last name) please print	CPSC) Number	,
Physician's signature Date		(dd/mm/yyyy)	
		/ /	



Name of patie	nt:				
Address:					
Date of birth:		/	/		Age:
MRN:					
	Home: ()	-	Business: () -

Patient (first name, last name) please print

Section 7 – Lab Orders

Please order the following:

- CBC, K+, Na+, CI-, HC03, Cr, Ur, glucose, AST, ALT, ALP, Tbili, CK 1.
- 2. EKG & troponin if history of chest pain or cardiac disease
- CXR (PA & lat) if SOB or cough or $SpO_2 < 95\%$ or crackles on chest auscultation 3.

