

New York State Department of Health
Community-Based
Care Center

toolkit FOR



Developed by New York Medical College
School of Health Science and Practice

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Using this Toolkit

This toolkit was created by the Center for Disaster Medicine at New York Medical College under contract with the New York State Department of Health. It is designed to help New York State counties and municipalities plan for their citizen's health and medical needs during a pandemic event. Enclosed are guidance, templates, and tools derived from Alternate Care Site pilot grant recipients in New York State as well as from state and local governments across the country. These best practices, along with input from subject matter experts in public health emergency planning, may serve as resources for any county or local planning initiative developing government-authorized Community-Based Care Centers (CBCCs) during a pandemic or other public health emergency.

In all emergency planning it is recommended that localities and states comply with the federal government's requirement to conform to the National Incident Management System (NIMS). In this light, state and local plans need to conform to the National Response Framework (NRF). Within the NRF there are Emergency Support Functions (ESF) that delineate which agency will be the lead agency for various functions of emergency planning and response. Consistent with this model is ESF 8 (Public Health and Medical Services) which relates to the creation and operation of a

CBCC in the setting of a public health emergency or pandemic. ESF 8 charges the Department of Health and Human Services as the lead agency for coordinating planning and response efforts for this function. As such, it is recommended throughout this toolkit that the local/county health department take the lead role in coordinating planning for this purpose. While theoretically any agency could be assigned this role by the local executive, for this document and consistent with NIMS, the local health department is designated the lead agency.

Although this toolkit provides templates and recommends best practices, localities should consider the advice provided as guidance and should follow the emergency planning practices most commonly used in their community. Not all questions about planning for CBCCs will be answered. But, this will help planners identify problems and potential solutions if they use a team approach involving other community stakeholders, regional partners and New York State government.

Even though this guidance is provided by the New York State Department of Health, it is designed to be used by any lead agency charged with coordinating this type of emergency planning. This includes offices of emergency management, emergency services, or departments of health.

Chapter I

Introduction and Background

Introduction

Based on CDC, HHS, and DHS projections, during a flu pandemic, it is anticipated that between one and eight patients, per week per 1,000 people in a community will require hospitalization for which no staffed hospital beds will be available. Using even these conservative projections, 19,000 patients in New York State (NYS) will be without beds and will require care which cannot be provided at home. This need will exist even after hospitals have maximized their surge plans.

Because the existing health care system can't meet this need, communities in New York State will have to develop community-based resources. This need can be met through the creation of Community Triage Points in conjunction with CBCCs. The name, "Community-Based Care Centers," was chosen to stress two important concepts. The first is that a CBCC is different from many Alternate Care Facility models which are designed to expand a single health care institution or health care system's capacity to handle a surge of patients. CBCCs are not intended to be extensions of existing health care facilities and they are not new health care institutions. The second concept is that CBCCs are facilities based in a community and authorized by the county executive to address patient care needs which exceed the capacity of an entire community's pre-event health care resources. This includes hospital surge plans as opposed to those which are designed to meet increased need of a single institution and which draw upon the resources of the entire community. These centers would open only if the health care capacity of a community was overwhelmed or if it was anticipated that they would be overwhelmed. The CBCCs would open if the local executive determined that a local state of emergency existed. The emergency would be due to the community's and the health care system's inability to provide care for patients.

Chapter I provides a review of the need for CBCCs. It includes the planning assumptions and key points which provide the foundation for this toolkit and a further description of the legal authority for the establishment of a CBCC.

Need for Community-Based Surge Capacity for Pandemic Flu

Under CDC projections of patient surge associated with pandemic influenza, the primary assumptions are that:

- 25% to 35% of the population will become ill;
- 4.4% of those who become ill will be admitted to the hospital;
- 15% of those admitted will require intensive care unit care, and
- 7.5% will require ventilator care.

These projections were derived using FluSurge 2.0 software developed by the CDC and assumed a pandemic midway between the mild 1968 influenza pandemic and the severe 1918 influenza pandemic. Extrapolating from projections provided by the CDC, DHSS and projections derived from meetings of New York and New England States, peak weekly hospitalization rates during a pandemic may range from 19,688 to upwards of 161,834. At the same time, ICU rates may be 4,342 to 35,688 (109% to 896% of current ICU capacity). Hospitals in New York State have about 40,255 staffed acute care beds. These hospitals are currently at 85% to 100% occupancy. Hospitals may be able to increase their surge capacity by about 30%, however this will be affected by employee absenteeism and fatigue as the pandemic persists over several months. Total best-case surge capacity for hospitals will therefore be about 12,077 (30% of 40,255) flu patients per week. This best-case scenario still leaves about 8,000-150,000 patients per peak week without beds. Based on this conservative scenario, the common planning assumption for New York State is there will be one patient per 1,000 population without an available hospital bed. This even takes into account that hospitals will use all surge strategies. In New York State, with a population of 19,000,000, this would represent a need for 19,000 more beds each week. It may be even greater than this during peak weeks.

Summary of Health Care Planning Assumptions for New York State Pandemic Influenza

- Flu outbreak 8 weeks in duration.
- Vaccine will not be available for 6 months, and then will be available at 5 million doses/week.
- Antivirals will be in short supply and may be prioritized for treatment, not prophylaxis.
- New York State population 18,976,457.
- New York State has about 45,000 staffed hospital beds (nonpsychiatric beds).
- Hospitals can surge approximately 25,000 beds for pandemic patients using early discharges, cancelled surgeries, and in-house surge plans.
- At a 30% attack rate, with an 8-week duration, New York State could expect:
 - 668,566 total influenza-related hospital admissions over 8 weeks;
 - About 165,000 patients requiring admission during a peak week;
 - With 25,000 “surge” beds available, this creates a shortfall of about 140,000 beds during the peak week of the pandemic surge, and
 - With a population of about 19,000,000, this equates to 7 additional beds required per thousand population during the pandemic’s peak week.
- Every community must prepare to care for 7 inpatients per thousand people in a CBCC during peak weeks.

This best-case surge capacity will use all available hospital staff and ancillary staff as well as facilities such as outpatient clinics and off-site surgical centers. Hospitals will most likely be relegated to treating only the most severely ill patients as their resources become overwhelmed. This will force the remaining patients (the less sick and terminally ill) to be treated either as home care patients or “other” facility patients. Skilled staffing for these patients will be in very short supply if available at all.

During a health care surge, the delivery of care will be modified by circumstances. The standard of care may change based on available resources. The scope of a provider’s practice may change based on need; sites of care may look different due to access issues, and the traditional methods of claims identification and submission may be forced to undergo adjustments that require practical solutions. Also, during a catastrophic emergency, the primary focus of the health care community will be on responding to the emergency and caring for the ill and injured. These changes will require providers to work with health plan partners to meet the needs of the health care surge environment and ensure adequate provision of care. “Health care surge” has varying meanings to participants in the health care system.

What is a health care surge?

A health care surge means the demand on health care delivery has exceeded capacity. It specifically refers to the demand on hospitals, long-term care facilities, community care clinics, public health departments, other primary and secondary care providers, resources and/or emergency medical services. The surge is proclaimed in a local health jurisdiction by an authorized local official such as a local health officer or another designee.

While health care-surge conditions would exist throughout the pandemic, the greatest need for surge capacity is expected to occur in 2 to 3 waves lasting 6 to 8 weeks over an 18- to 24-month period. The highest demand is projected to occur in week 4 of the first wave with about 25% of the surge occurring that week. Given patient numbers

expected to exceed hospital capacity, length of time this may last, staffing, equipment and supply limitations, there will be a need for CBCCs. CBCCs will be used when all available health care resources responding to injured or ill patients have reached maximum capacity. Developing a CBCC is a complex undertaking. That's why it's vital to be proactive and have a collaborative planning process. Part of the complexity is developing an ongoing communication and integration plan with the local health care delivery system.

For surge planning purposes a CBCC is defined as:

A location that is not currently providing health care services that will be converted to enable the provision of health care services. At a minimum, these services will support care required after a local declared catastrophic emergency (for this toolkit model, we're referring to a pandemic influenza, or flu). These specific sites are not part of the expansion of an existing health care facility (i.e., extensions of general acute care hospitals, clinics, or long-term care facilities). However, they are designated under the authority of the local government.

A CBCC does not include sites that are established as part of an expansion of existing health care facilities, such as tents set up for patient care in the parking lot of a hospital or sites set up for patient triage by Emergency Medical Services, such as field treatment sites.

A government-authorized CBCC will be established only when it is anticipated that either all other health care resources will be, or have been, exhausted. The services provided at a government-authorized CBCC will vary, based on resource availability and event-specific patient needs. Since a CBCC will operate in a non-health care facility, it cannot fully replicate all of the services normally provided in a hospital setting. The objective for establishing a CBCC is to manage the patient load until the local health care system (e.g., hospitals, clinics, and long-term care facilities) can manage patient's demands. To determine what's needed in a CBCC, it is important to consider event-

specific needs for patient care. This will help you understand the type and scope of services that will need to be established. When planning, five basic criterion should be considered:

- Patient type
- Level of care
- Facility type
- Providers
- Equipment, supplies and financial resources

Key Points of the CBCC Model

The model described in this toolkit is based on several key points which include:

- Executive Law § 24 provides the legal authority for a county to open a CBCC. Section 24 states that when a local chief executive declares a local state of emergency, s/he may establish "emergency medical shelters" and, "in consultation with the state commissioner of health," alternate medical care sites "as necessary to protect life or to bring the emergency situation under control;"
- Government-authorized CBCCs are designated under the authority of local government when the existing health care delivery system is unable to accommodate the existing or anticipated patient volume resulting from a disaster after having used all available surge capacity mechanisms;
- The CBCC Toolkit is specifically designed to be used by the local Emergency Support Function 8 (Public Health and Medical Services) "lead agency" charged by the municipal or county executive. As a result, this agency is responsible for coordinating the planning for a CBCC;
- Any CBCC has a designated and formalized response system that is established and consistent with the National Incident Management System (NIMS). It is also part of the local incident command system;
- What is considered the standard of care for patients may shift in the CBCC due to the setting/location, the availability of resources and the health care demands particular to the site or region. Even with the shift in standard of care, each patient will still receive the best care based on available resources.

- Staffing and workforce planning will differ based on the medical needs that result from the specific trigger event. But, for this model they will be based on pandemic influenza.
- The care provided in the CBCC and the resources available may vary as the event continues to evolve.

Planning Assumptions for the CBCC Model

For the purposes of this planning guidance the following assumptions were made:

- Hospitals have reached surge capacity and no additional staff are available;
- The local chief executive has declared a local state of emergency;
- The event planned for is pandemic influenza;
- Models in other states have revealed that hospitals will have no available personnel to staff out-of-hospital care centers;
- Based on federal projections, it is assumed that between one and eight patients per thousand population will require hospitalization but no staffed bed will be available;
- The purpose of the CBCC will be to provide care for patients who can be cared for in a nonhospital setting. This will provide decompression of the hospital and avoid or deter the arrival of potentially infectious patients at the hospital;
- The equipment, staff and resources at a CBCC will vary greatly from those available at a hospital;
- The primary patients will be those with influenza or presumed influenza and its associated complications;
- Additional patient types may be admitted to the CBCC if resources permit (palliative care, hospital patients with minor conditions awaiting full resolution for discharge, home-care patients, etc.);
- Staffing of the CBCC will be coordinated through recruitment of staff from local agencies, government entities and volunteers through authorized volunteer programs. i.e., the Medical Reserve Corps (MRC), Citizen Emergency Response Team (CERT), and local county health department volunteer programs as well as employees of local and county agencies. This may be supplemented by other volunteers/staff at the local level based on local resources and local planning or from family members;
- Local hospitals are not expected to contribute significant resources for two reasons: 1) Their staffing and supply levels will already be fully used or, 2) Their staff and supplies will be needed to continue to support their surge plans, and
- No alterations in scope of practice will be expected by health care workers at the CBCC.

Legal and Regulatory Framework in New York State for CBCC Operation

There are several legal constructs that could be used for opening a CBCC. However, some of those routes would require adherence to strict regulatory restrictions and/or a state declaration of emergency. They would also require numerous suspensions of state laws in order for the sites to operate efficiently. Executive Law § 24 provides the legal authority for a county to open a CBCC. Initially this section stated that when a local chief executive declares a local state of emergency, s/he may establish “emergency medical shelters” as necessary to “protect life” or “to bring the emergency situation under control.” Recently this section has been further expanded to include the statement, “in consultation with the state commissioner of health, alternate medical care sites.” *As a result, authority to open such a shelter does not exist until the local executive has declared a local state of emergency under Executive Law § 24.* In addition, if using the specific reference to Alternate Medical Care Sites as part of the legal authority, *consultation with the State Commissioner of Health would be necessary.*

Opening government-authorized CBCCs as “medical shelters,” under the authority of the local chief executive, after a declared local emergency under Executive Law § 24 provides the simplest mechanism for opening such a site. By doing so, it relieves the burden of regulations that are designed for day-to-day operations at fixed sites, not for temporary facilities opened to meet an emergency need such as “medical shelters.” Also, such a plan automatically places the medical shelter within the context of the local emergency response.

As a result, this toolkit is based on the assumption that CBCCs are opened under the authority granted to the **local** chief executive after declaring a local emergency under Executive Law §24.

Planning for CBCCs should be based on the assumption that there has been no state declaration of emergency and no federal declaration of a disaster emergency. Therefore, all state and federal laws apply. If the Governor declared a disaster emergency, s/he could issue

an executive order temporarily suspending specific provisions of state and local laws. This would include regulations, “if compliance with such provisions would prevent, hinder, or delay action necessary to cope with the disaster” (See Exec. Law § 29-a). Such suspensions are commonly referred to as “waivers.” Any such order is subject to certain statutory restrictions:

1. Any suspension of law must be necessary to safeguard the health and welfare of the public and must be reasonably necessary to the disaster effort;
2. Each order is valid only up to 30 days; however, the governor may extend the effective period for additional 30-day periods upon reassessment of the need for continued suspension;
3. Each suspension order must specify the statute, local law, ordinance, order, rule or regulation (or part thereof) to be suspended and the terms and conditions of the suspension;
4. The suspension order shall provide for the minimum deviation from the requirements of the statute, etc., consistent with the disaster action that is deemed necessary;
5. Whenever possible, specialists must be assigned to assist with the emergency actions to avoid needless adverse effects from the suspension, and
6. By concurrent resolution, the legislature may terminate any executive order suspending laws.

Drafting such orders to address needs during a disaster is a key component of advance planning for emergencies. (For example, to use available personnel more efficiently, allow certain licensed professionals to perform tasks for which they can be quickly trained.) But, there is no guarantee that the Governor will declare an emergency and issue an order. There’s also no guarantee that the content of an order will be entirely consistent with any order drafted in advance. There may be valid safety reasons to keep certain legal requirements in place even during an emergency. Also, even if the Governor issued an executive order there is no guarantee that this order would be in effect for the entire time a CBCC remains open. Also it is important to remember that the state cannot waive federal laws and regulations (e.g., ADA, EMTALA, or HIPAA).

Chapter II

Planning and Preparation: Building Capacity

Introduction

This chapter outlines the process of planning and preparing to organize and operate a CBCC during an influenza, or flu pandemic. While this model is primarily based on a flu pandemic it could be used for all hazards or functional medical sheltering. Many important items are addressed in this chapter. They include: engaging community stakeholders; the need for memorandum of understanding; legal and regulatory issues; selecting a site; concept of community triage points; equipment and supply planning; training and education, and developing a plan.

Plan Development and Maintenance

There are no hard and fast rules for conducting the planning process or plan development. However, there is a suggested process that should be considered when developing and writing a plan. Comprehensive emergency planning is a cycle of four key elements that continue throughout the life of the plan. The elements are as follows:

- The first step is to conduct a hazard and vulnerability assessment to determine planning need and hazards planned for. For the purposes of this document, it is assumed that planning is needed to operate a CBCC during a public health emergency such as the threat of pandemic influenza.
- The second step is to draft the plan and have it reviewed by a planning committee and key stakeholders.
- The third step is to train and educate staff with clearly delineated functional roles to ensure execution of the plan during an actual event. When this step has been completed and satisfied the fourth step occurs.
- The fourth step is to evaluate the plan using drills and exercises. Afterward, the strengths and weakness of your plan should be easily identifiable. Your plan and training of staff should be modified as necessary and the process of drilling and exercising should begin again.

Although this is the larger cycle of comprehensive emergency planning there is more specificity to the process of outlining and drafting the actual emergency operations plan. If focus is placed on the plan development process there will be a general flow to this process. Already discussed is the importance of forming a planning committee to assist in drafting sections of the plan that may pertain to their expertise. For example, the County EMS Coordinator may draft the section of the plan that discusses the roles of private and municipal ambulance services in transporting patients to and from the CBCC. The planning committee improves and refines the draft plan. They also review appendices or annexes. The final draft plan is edited and distributed to the planning committee and to any agency that can provide comment and review (such as the State Health Department, academic experts, etc.). After comments are implemented a final planning meeting should be held for review and implementation. The plan would then be presented to elected officials for concurrence and promulgation. The plan should be printed and distributed to all organizations involved in the plan. The plan should be tested with drills and exercises.

The actual process of writing the plan is a fairly scripted process. The plan should begin with a series of statements that serve as an introduction. These include:

- A promulgation statement signed by the chief executive giving the plan authority;
- A foreword that describes the planning process, abstracts the contents in an executive summary and states the plan's goals;
- A table of contents, and
- Instructions on using the plan and a change record noting the date and pages revised.

These parts follow the introduction statement: a statement of purpose, situation and assumptions; organization and assignment of responsibilities; concept of operations; administration and logistics; plan development and maintenance; authorities

and references, and definitions of terms followed by any applicable annexes and appendices.

An annex describes operations for a particular function. It defines the function and shows how activities of various participants are organized. The annex is action oriented and should be written for and by the person responsible for controlling resources to accomplish the objectives of the function. An appendix contains details, methods and technical information unique to the hazard identified in the plan. It is essentially supplemental information.

The best partners in the planning process will be Emergency Managers. They write emergency operations plans as a central part of their job. They can provide technical assistance, peer review and, in some cases, templates for the common, jurisdiction-specific content that may appear in most emergency operations plans for your community.

Critical Agencies and Organizations in the CBCC Plan and Planning Process

Local/County Health Department

When the health system is overwhelmed by a public health event, the health department is tasked with maintaining the health and welfare of the public. CBCCs are not intended to be extensions of existing health care facilities or to construct a new health care institution. Based on the health department serving as the lead agency for ESF 8 in standard emergency operations plans, the local health department is listed as the lead agency in the planning and operation of CBCCs in this toolkit. In this role the health department should engage partners and stakeholders; create planning documents, facilitate planning meetings; coordinate training, and assist in the evaluation of CBCC planning. During an actual activation it is expected that the health department would be the lead agency.

Local/County Emergency Management

The Office of Emergency Management/Bureau of Emergency Services (EOM/BES), in accordance with their Comprehensive Emergency Management Plan, will support the activities of the health

department. This includes supporting the activation, operation and demobilization of CBCC operations during a pandemic or public health event. Specifically, OEM/BES will be responsible for coordinating the transportation of patients to and from the CBCC and community triage sites. They will also coordinate transportation to and from acute care hospitals. In addition, OEM/BES will provide the health department logistical support and resources to transport equipment and supplies between the CBCC and community triage sites. OEM/BES assistance will be coordinated through the emergency operations center (EOC) during CBCC activation.

Local Hospitals and Medical Centers

CBCCs are community resources used to support patient care when local hospitals are providing care at full capacity including surge plans. Therefore, local hospitals would not be expected to have a direct role in CBCC operations. Their anticipated role would be to provide consultation during the planning for a CBCC. They would also support the health department during CBCC operations by informing them of changes in hospital surge status or significant patient volume which may indicate the presence of a pandemic or public health emergency. Hospitals will also accept transfers of acutely ill patients from the CBCC who require inpatient hospitalization as determined by the physician medical director. An example of a hospital/medical center memorandum of understanding is in Appendix 6.

Local/County Law Enforcement Agencies

The local law enforcement agency (including municipal police, county police or Sheriff's Office) is tasked with law enforcement and support of site security and traffic control at the CBCC and community triage points. This should be written in the form of an MOU drafted by the county legal office. The law enforcement agency will provide pre-event assessment of the CBCC and community triage site locations to assess security. The law enforcement agency will assist in planning for site security at CBCC facilities and provide law enforcement officers to support operations during a CBCC event. This would include, but is not limited to, traffic and crowd control; security of medical equipment and

supplies; enforcement of isolation and quarantine, and providing for the safety of CBCC staff.

New York State Department of Health

The State Health Department would be available to local county health departments in an advisory capacity and would provide guidance on epidemiologic investigation and control measures; case definitions; recommended treatments; credentialing of staff, and assistance with volunteers. As previously stated, if the authority to open the CBCC is under the provision of Executive Law §24, consultation with the State Health Commissioner must be obtained as part of the process. In some cases, the State Health Department may also be able to issue temporary waivers of regulations. This allows health departments to handle the operation of the CBCC in a more efficient manner during a public health event. While not necessary in this model they may be used to further enhance the functions of the CBCC.

Involving Community Stakeholders

The first step in any emergency planning process is to determine whose assistance is needed to make the plan function and who will be affected by the plan. A brainstorming session should occur with key members of the influenza pandemic planning team to create a list of organizations and agencies whose resources could assist in developing a better functioning CBCC.

The list will likely include, but not be limited to, many of the following agencies:

- Emergency management
- Law enforcement
- Fire/Emergency Services
- Emergency Medical Services (EMS)
- Public Works
- Hospitals
- Extended care facilities
- Visiting nurse agencies
- Coroner/Medical Examiner
- Schools
- Congregate Facilities
- Mental Health Agencies
- Correctional Facilities

- Shelters
- State Department of Health
- Medical Reserve Corps
- The American Red Cross
- Salvation Army
- Vendors

Integration of Planning with Local Communities and Existing Plans

If an agency is planning for a county or regional approach to manage a pandemic or public health emergency using the CBCC model, consider the plans that local communities already have in place. This will avoid drafting a CBCC plan which conflicts with a plan created by another agency or jurisdiction. For this reason it is essential that municipalities within a county or region are involved in the planning process to eliminate the chance of conflicting plans or redundancies which may impact the ability to carry out the plan. This is particularly important when a community is relying on a specific resource or location, such as a school or arena, only to find that it has been allocated to a different purpose.

Whenever possible, draw upon existing elements of similar plans which may help you plan. For example, a health department likely has a Strategic National Stockpile (SNS) distribution plan. You might use this plan's logistical information to decide how to procure, sort, allocate, and transport pharmaceuticals and medical supplies in the setting of a public health emergency. Also, with minor modifications, you might be able to use your health department's Point of Distribution/Dispensing (POD) plan equipment lists; systems for just-in-time training; volunteer utilization; credentialing, and staff prophylaxis. If an agency or jurisdiction already has a well-developed logistics plan there is no need to develop a new one. Adapt, modify and use existing documents whenever possible.

Plans that may overlap include:

- Medical Sheltering plans
- Point of Distribution/Dispensing (POD) plans
- Strategic National Stockpile (SNS) plans
- Mass Casualty Plans
- Evacuation Plans

Memoranda of Understanding and Contracts

Planning for a CBCC requires agreements with agencies, corporations and other government agencies. These agreements may cover many aspects of planning and operating a CBCC. They include, but are not limited to, obtaining services, sharing resources and working with these entities. It is imperative that these agreements be formal, written agreements, not verbal agreements. In general they will be one of two types: contracts or Memoranda of Understanding (MOU) and Mutual Aid and Assistance Agreements. The format will be determined by the local county legal department. In general, contracts should be used except when the agreement is between two agencies from the same level of government.

Memoranda of Understanding (MOU) are agreements between two parties, agencies or companies that specify the terms of a working relationship. The details may be the type and kind of resources or services provided and the terms of providing these services. For instance, an agency may sign an MOU with another agency stating how staff members would be made available to the agency during an incident and the payment terms for this service. MOUs are necessary to secure the cooperation of other planning partners before an incident. The exact wording and use of an MOU is something a county legal department will determine. The important aspect of planning is to assure that agreements are in writing. Also, agreement between agencies, an MOU, is the mechanism to put the agreement in writing. Agreements among all parties providing or requesting resources are necessary to enable effective and efficient resource management during incident operations. This includes developing and maintaining standing agreements and contracts for services and/or supplies that may be needed during an incident.

Mutual Aid and Assistance Agreements are similar to an MOU. As written agreements between agencies in different jurisdictions, they provide a way to obtain emergency assistance. Agreements may be made concerning personnel, equipment, materials, and other associated services. The heads of the governments involved sign the

document. Typically, the agreement covers access across boundaries; the provision of resources and services, and the extent to which the resources and services will be provided. The primary objective is to facilitate rapid, short-term deployment of emergency support prior to, during, and/or after an incident. It would not, for example, be fiscally responsible for a community to purchase a special piece of emergency equipment for occasional use if a neighboring jurisdiction already owned similar equipment and was willing to share. It makes sense to partner and share resources through mutual aid agreements. Examples of types of mutual aid agreements needed for CBCC planning include equipment and resources such as medical supplies and pharmaceuticals, ambulance transportation, buses, etc.

MOUs that may need to be drafted include agreements between planning partners and agencies pledging to donate goods or services during an event. Also, contracts for services may need to be executed between agencies and private businesses for food services, housekeeping and building maintenance, waste removal, medical or pharmaceutical supplies, laundry/linen, fuel for vehicles or generators, etc. Draft contracts and MOUs are in Appendix 6.

Legal and Regulatory Issues

Legal and regulatory issues must be considered in the written plan for the establishment of a CBCC. Chapter I covered the legal and regulatory framework for the operation of a CBCC in New York State. Besides the considerations previously discussed there are specific operational issues which must not be overlooked during site selection, preparation and operation. For planning, the most basic assumption is that all legal or regulatory requirements must be complied with during a pandemic or other emergency. This will help avoid potential legal repercussions and liability.

Patient Discharge to a CBCC

Another basic assumption of the CBCC model is the ability to send a certain category of patients from hospitals to a CBCC. It is important to understand the standard for an "appropriate discharge" and whether there exists any regulation

or law that would limit or prohibit the ability to discharge a patient from the hospital to a CBCC. State regulations do not describe the conditions for an “appropriate discharge.” 10 NYCRR § 405.9 requires that each patient receive, upon admission, an admission notice outlining rights regarding discharge, including (but not limited to):

1. A written discharge plan
2. The right to be involved in discharge planning
3. The right:
 - a. To have NYSDOH investigate the complaint and the safety of the discharge if you are a Medicare patient
 - b. To appeal, including a notice instructing who to call to appeal
4. The right not to be discharged until the services required in the written discharge plan are secured or determined to be reasonably available.

It appears, therefore, that the discharging physician may discharge a patient to a CBCC as long as there is a spot available in the CBCC and the CBCC can provide the care the physician determines to be necessary. The appeal process, however, could create a backlog if exercised by a significant number of patients.

Liability Protection

Whether any liability protections exist under the law depends on the circumstances. They include whether the person subject to suit is an employee or a volunteer, for whom they are working or volunteering, and the nature of their activities. See Appendix 4 for a memo from the General Counsel’s offices of the New York State Emergency Management Office and the State Health Department, dated Sept. 1, 2005, discussing potential avenues of liability coverage for volunteers. In addition, broad protection under the federal Public Readiness and Emergency Preparedness (PREP) Act may be available for limited activities if HHS has issued a PREP Act declaration that covers that activity for the condition specified in the declaration.

Recent additions to state law have also granted specific liability protection to “Disaster Emergency Response Personnel in Disasters.” The statute

which would apply to CBCCs is in executive Law Article 2-b section § 29-b. It reads as follows:

§ 29-b. Use of disaster emergency response personnel in disasters.

1. The governor may, in his or her discretion, direct the state disaster preparedness commission to conduct an emergency exercise or drill, under its direction, in which all or any of the personnel and resources of the agencies of the commission of the state may be utilized to perform the duties assigned to them in a disaster, for the purpose of protecting and preserving human life or property in a disaster. During a disaster or such drill or exercise, disaster emergency response personnel in the state shall operate under the direction and command of the chair of such commission, and shall possess the same powers, duties, rights, privileges and immunities as are applicable in a civil defense drill held at the direction of the state civil defense commission under the provisions of the New York state defense emergency act.

2. Local use of disaster emergency response personnel.

a. Upon the threat or occurrence of a disaster, and during and immediately following the same, and except as otherwise provided in paragraph d of this subdivision, the county chief executive may direct the emergency management director of a county to assist in the protection and preservation of human life or property by calling upon disaster emergency response personnel employed by or supporting that county, as specified in the county comprehensive emergency management plan, to perform the emergency response duties assigned to them.

b. The disaster emergency response personnel of the county shall be regarded as a reserve disaster force to be activated, in whole or in part, by the county emergency management director upon the direction of the county chief executive when the county chief executive, in his or her discretion, is convinced that the personnel and resources of local municipal and private agencies normally available for disaster assistance are insufficient adequately to cope with the disaster.

c. Except as provided in paragraph d of this subdivision, the county chief executive may exercise the power conferred upon him in paragraph a of this subdivision, or may deactivate the disaster emergency response personnel of the county in whole or in part, on his own motion or upon the request of the chief executive officer of a village, town or city located within the county of which he is an officer.

d. Where the local office of public safety or emergency management in a city is independent of the county office of public safety or emergency management and is not consolidated therewith, the county chief executive may direct the emergency management director of the county to render assistance within such city only when the chief executive officer of such city has certified to him that the disaster emergency response personnel of the city have been activated pursuant to the provisions of subdivision three of this section and that all resources available locally are insufficient adequately to cope with the disaster.

e. When performing disaster assistance pursuant to this section, county disaster emergency response personnel shall operate under the direction and command of the county emergency management director and his or her duly authorized deputies, and shall possess the same powers, duties, rights, privileges and immunities they would possess when performing their duties in a locally sponsored civil defense drill or training exercise in the civil or political subdivision in which they are enrolled, employed or assigned emergency response responsibilities.

f. The chief executive officer of a city shall be responsible for the conduct of disaster operations within the city, including the operations directed by the county emergency management director when rendering disaster assistance within a city pursuant to this section.

g. Outside of a city, the sheriff of the county, and in Nassau County, the commissioner of police of the county of Nassau, shall supervise the operations of the emergency management director when rendering peace officer duties

incident to disaster assistance. The sheriff and such commissioner may delegate such supervisory power to an elected or appointed town or village official in the area affected.

h. Neither the chief executive officer of a city, nor the county chief executive, nor any elected or appointed town or village official to whom the county chief executive has delegated supervisory power as aforesaid shall be held responsible for acts or omissions of disaster emergency response personnel when performing disaster assistance.

3. City use of disaster emergency response personnel.

a. Upon the threat or occurrence of a disaster, and during and immediately following the same, and except as otherwise provided in paragraph d of this subdivision, the chief executive of a city may direct the emergency management director of the city to assist in the protection and preservation of human life or property by calling upon city disaster emergency response personnel to perform the emergency response duties assigned to them.

b. The disaster emergency response personnel of the city shall be regarded as a reserve disaster force to be activated, in whole or in part, by the city emergency management director upon the direction of the chief executive officer of the city when the latter, in his or her discretion, is convinced that the personnel and resources of local municipal and private agencies normally available for disaster assistance are insufficient adequately to cope with the disaster.

c. Except as provided in paragraph d of this subdivision, the chief executive officer of a city may exercise the power conferred upon him in paragraph a of this subdivision, or may deactivate the disaster emergency response personnel of the city in whole or in part, on his own motion or upon the request of the head of the city police force.

d. Where the local office of emergency management in a city is under the jurisdiction of a consolidated county office of civil defense as provided in the New York state defense emergency act, the chief executive

officer of such city seeking the assistance of disaster emergency response personnel in the protection and preservation of human life or property within such city because of such disaster, must request the same from the county chief executive in which such city is located, in the same manner as provided for assistance to towns and villages in subdivision two of this section.

e. When performing disaster assistance pursuant to this subdivision, disaster emergency response personnel shall operate under the direction and command of the city emergency management director and his or her duly authorized deputies, and shall possess the same powers, duties, rights, privileges, and immunities they would possess when performing their duties in a locally sponsored civil defense drill or training exercise in the city in which they are enrolled, employed or assigned emergency response responsibilities.

f. Where the city disaster emergency response personnel have been directed to assist in local disaster operations pursuant to paragraph a of this subdivision, and the chief executive officer of the city is convinced that the personnel and resources of local municipal and private agencies normally available for disaster assistance, including local disaster emergency response personnel, are insufficient adequately to cope with the disaster, he or she may certify the fact to the county chief executive and request the county chief executive to direct the county emergency management director to render assistance in the city, as provided in subdivision two of this section.

g. The chief executive officer of a city shall be responsible for the conduct of disaster operations within the city, including the operations directed by the county emergency management director, when rendering disaster assistance within a city pursuant to this subdivision.

h. Neither the chief executive officer of a city, nor the county chief executive, shall be held responsible for acts or omissions of disaster emergency response personnel when performing disaster assistance.

Fire and Safety

Other important legal/regulatory requirements to consider during site selection are fire and life safety code requirements. Commercial buildings and facilities adapted for use as a CBCC should conform to fire codes. It is the responsibility of the lead agency to ensure that these codes are met throughout the event's operational phase. These elements of fire code require attention: the presence of sprinklers or other fire suppression systems; the presence of smoke detectors and central station fire alarm systems; the legally approved number of occupants allowed in a building (including patients, staff and visitors), the location and proper storage of fuel for generators or vehicles, and the ability to safely reach exit doors in case of a fire. The easiest way to comply with fire safety codes is to include the fire inspector on your site selection team. If you have already engaged the fire department or Bureau of Emergency Services in your planning team then it would be natural for them to help you select your site and prepare your CBCC plan.

There are no specific fire and safety laws and regulations that would apply to a CBCC since this type of structure has not existed. As such, planners should assure that their facilities are in compliance with all applicable fire and safety laws and regulations. In general, it is important to evaluate all potential facilities for:

1. Adequate work space that can support the intended use
2. Support areas, including toilets and snack areas
3. Parking sufficient to support the intended use
4. Heating and ventilation systems that are in proper working condition
5. Adequate electrical service for activities planned in the facility
6. Phone service, including pre-existing wiring for multiple phone lines, or a plan for providing service. The outside trunk which supplies phone line capability determines the inside phone capability. It may be limited. The phone company can provide this information.
7. A barrier-free environment. Buildings should be accessible and usable by clients and staff with disabilities

8. A hazard-free environment
9. Buildings should be free of:
 - Fire hazards
 - Obstructions that may cause injury or prevent proper exiting in case of emergency
 - Any condition or item with the potential to cause electrical shock
 - Elements that can cause air or water contamination
10. Fire safety equipment or system. Buildings should have either an operable fire sprinkler system, such as pressurized water hoses (fire valve) capable of covering all parts of a building or fire extinguishers. If extinguishers are used, they must be of the ABC type and must be mounted in an openly visible place (5 feet maximum height), at each entrance to the building or within a 75-foot radius (maximum travel distance) of any potential fire source. It is especially important to have a fire extinguisher in a kitchen area. Training in the use of fire extinguishers must be provided to all staff.
11. Counties should also consider local laws that may affect planning in this area.

Food Safety and Sanitation

New York State Sanitary Code specifies the appropriate methods of the preparation, handling and storage of food. When drafting plans for the CBCC it is important to realize the need for dedicated food preparation areas with appropriate facilities for the refrigeration and handling of food by food services workers. During the site selection process this can be an important element in the selection of a suitable site. Where feasible, counties should consider setting up CBCCs in buildings with substantial kitchen facilities that already have permits (e.g., schools; community centers; community congregate facilities; hospitals which may no longer be in use as a hospital but are still in functional shape; some Article 28 facilities, etc.) For example, they may have existing commercial food preparation facilities at the site and this would make compliance with food safety requirements easier during CBCC operation.

In addition to food safety, sanitation is an important concern as it relates to the handling of both routine and medical waste products. In the CBCC plan it is recommended that planners include provisions for waste collection and disposal. This includes having facilities on site for appropriate storage and disposal. Also consider the development of a contract with a waste management company to provide frequent pickup of stored waste to promote hygiene and deter pests from infesting the waste storage areas. As the lead agency, the health department can use their sanitarians to oversee food safety as well as sanitation. It may be valuable to include a health inspector/sanitarian on your site selection team to help avoid issues with food safety and sanitation in the planning phase of the event.

The following tasks are delegated to the housekeeping and maintenance roles. (The job action sheets for these roles are in Appendix 1.): Disposal of waste; routine sanitation and cleaning of bathrooms, and the provision and stocking of handwashing sinks for medical providers.

As a general rule, food safety and sanitation provisions would be applicable to a CBCC. For additional information, see PHL §§ 1350 - 1354 and 10 N.Y.C.R.R. Part 14 (State Sanitary Code). As with fire and safety, counties should also consider local laws that may affect planning in this area.

Narcotics Storage and Handling

If the local CBCC plan will include provision of narcotics, compliance with federal and state laws and regulations will need to be considered. These include:

- a. Federal narcotics laws and regulations
- b. All controlled substances must be stored in a securely locked, substantially constructed container/cabinet with limited access for office staff. For more information see 21 U.S.C. § 801 et seq. and 21 C.F.R. Parts 1300-1308 or <http://www.deadiversion.usdoj.gov/faq/general.htm>.
- c. State narcotics laws and regulations
- d. Controlled substances may be legally distributed within New York only to licensed distributors or manufacturers; practitioners;

pharmacists; pharmacies; institutional dispensers, and laboratory, research or instructional facilities authorized by law to possess the particular substance. See PHL § 3320(1). A person authorized to obtain a controlled substance by distribution may lawfully receive such substance only from a distributor licensed pursuant to this article. See PHL § 3320(2).

For additional information, see Public Health Law Article 33 and 10 N.Y.C.R.R. Part 80 or http://www.nyhealth.gov/professionals/narcotic/laws_and_regulations.htm.

Cost Reimbursement

Counties should consider establishing a mechanism for tracking costs associated with CBCCs. Although there is currently no clear mechanism for guaranteed reimbursement, there is always the possibility of subsequent appropriations to assist with the costs. Because CBCCs are not hospitals, but rather “medical shelters,” they should not expect to receive reimbursement for the cost of care through third-party payers such as private insurance or Medicare/Medicaid. Federal aid may or may not be forthcoming. Although the current federal policy lists temporary medical facilities and emergency medical care in shelters as potentially eligible for reimbursement, it is unclear whether sufficient funds will be available to cover the costs nationwide. FEMA recently issued guidance on potential reimbursement. See guidance in Appendix 10.

Isolation and Quarantine

Each county has developed an Isolation and Quarantine protocol. County CBCCs should refer to their county protocol for guidance if the State Health Department recommends such measures in the Centers.

Worker Safety

Applicable federal and state workplace health and safety standards would apply to a CBCC. The incident command is responsible for providing for the occupational safety and health of employees and volunteers at the community triage points

and the CBCCs. The occupational safety and health standards of the Occupational Safety and Health Administration (OSHA) in 29 CFR 1910, as well as the applicable regulations under Public Employee Safety and Health (PESH), may not be overlooked or ignored. They must be planned for in the CBCC plan. PESH is responsible for promoting the health and safety of all public sector employees, including state, county, town, and village governments, as well as public authorities, school districts and paid and volunteer fire departments. See N.Y. Labor Law §§ 27, 27-a. PESH has adopted all federal OSHA standards and regulations applicable to public sector employment, with the exception of certain different recordkeeping requirements. For additional information, see www.osha.gov and http://www.labor.state.ny.us/workerprotection/safetyhealth/DOSH_PESH.shtm.

Specific items to consider are: medical surveillance; respirator fit testing; blood-borne pathogens; hazard communication, and general workplace health and safety standards. The incident Safety Officer will ensure these provisions are adhered to by incident staff. This individual has the authority under the incident commander to stop unsafe work practices that place in jeopardy the health and safety of any worker. The functional role of the Safety Officer and the corresponding job action sheet are in Appendix 1.

Handicap Accessibility and the Americans with Disabilities Act (ADA)

It may seem obvious that a site used as a CBCC should accommodate stretchers; wheelchair-bound individuals; nonambulatory patients, and those with assistive technologies. However, they are not only essential to the operation of the CBCC but are additional code requirements for buildings. During a site survey, consider handicap access to bathrooms; ramps; elevators (when appropriate); bedside commodes; shower chairs; doorway width; electrical outlet capacity, etc. It's very helpful to have a building inspector/code enforcement officer on the site selection team who is knowledgeable about ADA requirements.

Federal civil rights protections established under the ADA would apply to a CBCC. See 42 U.S.C. §§ 12101 et seq. The ADA mandates the

elimination of architectural and functional barriers in public facilities to ensure access by people with disabilities. An individual with a disability is defined by the ADA as a person who has a physical or mental impairment that substantially limits one or more major life activities; a person who has a history or record of such impairment, or a person who is perceived by others as having such impairment. See 42 U.S.C. § 12102. Whenever possible, planners should select ADA-compliant facilities. Where facilities are not accessible by persons with disabilities, planners may reasonably meet the standard by arranging for suitable alternatives. Such accommodations may include temporary modifications such as portable ramps, shower seats, transfer boards and table-level public phones. For additional information, see www.ada.gov or call the ADA Information Line at 1-800-514-0301 (voice) or 1-800-514-0383 (TTY).

Licensure and Scope of Practice Requirements

In a pandemic, care providers may need to operate in roles and provide assessments and interventions which differ from their traditional roles. It is important to determine if this will be a problem with laws and regulations related to the scope of practice requirements.

1. Physicians

- a. Practice of medicine is defined as diagnosing, treating, operating or prescribing for any human disease, pain, injury, deformity or physical condition. Ed. Law § 6521.
- b. Education law § 6526 (8) provides that “any medical student who is performing a clinical clerkship or similar function in a hospital and who is matriculated in a medical school which meets standards satisfactory to the department, provided such practice is limited to such clerkship or similar function in such hospital” may practice medicine within the state without a license.

2. Nurses

- a. Nurse Practitioner. A certified nurse practitioner may diagnose illness

and physical conditions and perform therapeutic and corrective measures within a specialty area of practice, in collaboration with a licensed physician qualified to collaborate in the specialty involved, provided such services are performed in accordance with a written practice agreement and written practice protocols. The written practice agreement must include explicit provisions for the resolution of any disagreement between the collaborating physician and the NP regarding a matter of diagnosis or treatment that is within the scope of practice of both. A certified nurse practitioner may also issue prescriptions for drugs, devices and immunizing agents. No physician shall enter into practice agreements with more than four nurse practitioners who are not located on the same physical premises as the collaborating physician. Ed. Law § 6902(3).

- b. Registered Nurse. A registered nurse may “diagnose” and “treat” patients and may execute medical regimens prescribed by a licensed physician, dentist, or other licensed health care provider legally authorized to so prescribe. Ed. Law § 6902(1). For these purposes, the term “diagnose” is defined as “identification of and discrimination between physical and psychological signs and symptoms essential to effective execution and management of the nursing regimen. Such diagnostic privilege is distinct from a medical diagnosis.” Ed. Law § 6901(1). The term “treat” is defined to mean the “selection and performance of those therapeutic measures essential to the effective execution and management of the nursing regimen and execution of any prescribed medical regimen.” Ed. Law § 6901(2).
- c. Licensed Practical Nurse. A licensed practical nurse has the same scope of practice as a registered nurse with the exception that s/he may not conduct any nursing diagnosis or treatment. Ed. Law § 6902(2).

- d. Students enrolled in registered schools/ programs may perform nursing services as may be incidental to their course of study. Ed. Law § 6908.
3. Physician Assistants
- a. A physician assistant may perform medical services, but only under the supervision of a physician and only when such acts or duties assigned to him/her are within the scope of practice of the supervising physician. Ed. Law § 6542(1).
 - b. Supervision shall be continuous, but “shall not be construed as necessarily requiring the physical presence of the supervising physician at the time and place where such services are performed.” Ed. Law § 6542(3).
 - c. In a private setting, a physician is limited to supervising two physician assistants. In a hospital setting, there is no set limit on the number of physician assistants a physician may supervise. Ed. Law § 6542(4)-(5).
 - ii. Because there is no specific discussion of a CBCC in the existing law, for planning the more conservative rule should be used -- that of a single physician supervising no more than two physician assistants.
 - d. A trainee in an approved program may perform medical services when such services are performed within the scope of such program. Ed. Law § 6542(7).
4. Pharmacists
- a. During the normal course, only a licensed pharmacist may dispense medications. Ed. Law § 6903.
 - b. Unlicensed persons, under the supervision of a licensed pharmacist, may receive a prescription, type labels, perform data entry, retrieve drugs from stock, count dosage units, place units in container, affix prescription label to the container, prepare records of dispensing and deliver the prescription to the patient. A licensed pharmacist, however, may supervise no more than two unlicensed persons. 8 NYCRR § 29.7(a)(21)(i).
 - c. In addition, those practitioners authorized by statute to prescribe medications (doctors, physician assistants, nurse practitioners, veterinarians, dentists and podiatrists) may dispense a 72 hour supply of medications. Ed. Law § 6807(1)(b) & (2)(a)(2).
 - d. For additional information, see Ed. Law § 6800 et seq., 8 NYCRR Parts 29 and 63.
5. Respiratory Therapists
- a. Acting at the direction of licensed physician, a respiratory therapist may perform cardiopulmonary evaluation, respiratory therapy treatment techniques, and education of the patient, family and public. Respiratory therapy services may be performed pursuant to a prescription of a licensed physician or certified nurse practitioner. Ed. Law § 8501.
 - b. Respiratory therapists may supervise respiratory therapy technicians. Ed. Law § 8502.
 - c. Respiratory therapists may supervise respiratory therapy students if enrolled in approved education programs. Ed. Law § 8512.
6. Other licensed professionals
- a. Counties should consider a possible role for other licensed professionals including, but not limited to, chiropractors (Ed. Law § 6550 et seq.), dentists (Ed. Law § 6600 et seq.), veterinarians (Ed. Law § 6700 et seq.), physical therapists (Ed. Law § 6730 et seq.), podiatrists (Ed. Law § 7000 et seq.), and optometrists (Ed. Law § 7100 et seq.).
 - b. Counties should evaluate the need for inclusion of mental health professionals, including, but not limited to, psychologists (Ed. Law § 7600 et seq.) and social workers (Ed. Law § 7700 et seq.).
 - c. Role of Local and County Law Enforcement
 - i. *Who can direct local law enforcement to act under a local state of emergency under Executive Law Article 2-b?*
 - a. Under Executive Law § 25, the chief executive is authorized to use “any and all facilities, equipment, supplies, personnel and other resources of this political subdivision” as necessary to

cope with the emergency. Although there is no case law interpreting this provision with respect to law enforcement, law enforcement would presumably be encompassed by the statute's broad language.

- b. Moreover, County Law § 650 provides that the county sheriff "shall perform such additional and related duties as may be prescribed by law and directed by the board of supervisors or the county legislature."
- c. Regardless, county planners should confer with local law enforcement in advance of any emergency to discuss possible scenarios.

Credentialing and Licensure

An important aspect of planning and operating a CBCC is the medical credentialing of providers. If any qualifications are needed for prospective CBCC staff, they are verified for the staff person's anticipated functional role. Volunteers should be registered in ServNY, the State Health Department's electronic volunteer management system. This system automates the verification of professional licensures, specialties and certifications. It also assigns an emergency credential level. Volunteers should be issued identification so they will be recognized and allowed entry to the CBCC. This process will occur as part of the planning process. It can also occur during the event, through the incident command system, to let localities accept additional volunteers. An important part of the planning process is the development of the credentialing plan which includes pre-event and during-the-event credentialing.

Chapter 5: The Medical Care Plan outlines the care to be provided and classifies clinical providers into one of three levels. These levels rely upon the current licensure or certification to deliver medical treatment. It is essential to verify the credentials of all persons who will be providing medical care within the CBCC. The credentialing procedure used in the CBCC plan should be the common practice of the health department to verify the credentials of medical volunteers via ServNY. Similar procedures may appear in the Medical Reserve Corps (MRC) protocols and the Point of

Dispensing (POD) plans. They can be adopted for the CBCC plan. The credentialing process verifies that personnel have appropriate licensures/certifications if they act above the Level I stage of clinical provider (levels as defined in Chapter 5).

Once licensure/certification has been verified and the individual has been approved by the volunteer coordinator to begin work, an identification process should be initiated. One approach is to issue photo identification badges with the person's name and licensed profession visible. Identification should designate medical and nonmedical personnel including clinical level as defined in the medical care plan, Chapter 5. Before receiving a badge, the volunteer would be required to: complete the required "in-time" training; be fit-tested for a respirator; receive any prophylaxis (if necessary), and sign the required waivers, etc.

Site Selection

CBCC Site Selection Team

The CBCC Site Selection Team should include personnel from several of the agencies engaged as stakeholders during the initial planning process. Having specialized personnel as part of your site selection team gives you access to areas of expertise and helps you foresee problems with potential sites. Individuals useful to have on the team include: public health emergency planner; emergency management representative; EMS representative; fire inspector; health inspector/sanitarian; building inspector/code enforcement; law enforcement, and environmental engineer.

They should review essential CBCC site components and consider potential sites within the region. Site visits should be coordinated. Site Selection Team members should visit each location and rate it on its merits and needs. Top sites should be discussed and ranked. Also, a contract or an MOU should be prepared. The agency's legal counsel can determine which is appropriate for emergency use.

Recommended existing structures suitable for use as a CBCC include:

- National Guard armories
- Hospitals not in current use but still in functional shape

- Mobile field hospitals
- Airports, airport hangars
- Arenas, stadiums, football fields, civic sports centers
- Schools, churches, community centers, government buildings, meeting halls, convention centers
- Hotels/motels
- Warehouses
- Gymnasiums, health clubs
- Large tents or similar “soft” structures

Armories and public schools are particularly attractive because they are publicly owned structures, making it easier for emergency coordinators to rapidly secure them in the event of a disaster.

Each building under consideration should meet the Building Code standards for its currently designated building type. Following assessment of building code standards, the CBCC Planning Team should consider the following in selecting a facility:

- Security and Vehicular Access

When selecting a site an important consideration is the level of site security and control of vehicular access. Items to consider include:

1. Perimeter security (fencing, vehicular road barriers, etc.)
2. Traffic control
3. Adequate parking for staff and vehicle access pathways
4. Capability of securing and providing storage for Drug Enforcement Agency (DEA) scheduled controlled substances and other sensitive medical materials
5. Entrance and egress doors must be able to support evacuation. But the facility must be capable of being locked down to limit access and reduce the need for security personnel. (e.g., crash bar locks or other methods).
6. Public address and fire alarm in all areas or readily extendable to all areas
7. Adequate fire detection and suppression systems, particularly in patient care areas

8. Secure space for administration/ patient records
9. Secure storage capacity for pharmacy and other supplies
10. Limited number of secured entrances and exits.

- Building Size and Configuration Considerations

In addition to the site having some important features, consider whether the size is sufficient and the configuration is functional for a CBCC operation. Items to consider include:

1. Sufficient size – Minimum of 40,000 square feet (160 square feet per patient) of enclosed space is needed to support a 250-bed configuration. A building with an open area of about 50,000 square feet (200 square feet per patient) is considered optimal for a 250-patient CBCC.
2. Where needed, doors should be wide enough to accommodate gurneys and wheelchairs.
3. Adequate loading dock and material supply and staging space, preferably without forklifts needed for offloading vehicles
4. Kitchen facilities with dishwashing capabilities
5. General and medical waste removal ability
6. Area for handwashing stations and other safe hygiene techniques
7. Staff support / rest break area/shower areas
8. Adequate staging areas for supplies and storage
9. Wheelchair / handicapped access
10. Support area for laundry/ linen and general supplies
11. Mortuary area - ideally outside the CBCC.

- Infrastructure Considerations

In order to operate during an emergency the following minimal infrastructure items need to be assessed:

1. Backup electrical power or connection panels to portable generators should be installed.
2. Climate control systems with accessible and serviceable HVAC controls

3. Communications infrastructure in place such as high-speed Internet connection and extensive phone and intercom systems, fax lines, etc
 4. Natural gas supply – e.g., for heating, electricity or cooking which is piped directly into the building as opposed to an oil or propane tank which may need to be refilled at unknown intervals during the operational period
 5. Predictable and safe water supply
- Patient Care Considerations
Because a CBCC will be a patient care area, the following items should be assessed when selecting a site:
 1. Separate rooms with large floor space for patient care or the ability to partition open space to separate patients
 2. Men's and women's restrooms and shower function for patients
 3. Refrigeration/cold storage for medical supplies and food

CBCC Layout and Organization

- Restrooms & Showers – Assume a minimum of two toilets and one shower per 50-patient ward. Ideally, there should be separate restrooms for staff. They need not be as centrally located to the patient ward as the patient restroom facilities.
- Intake Area – A patient intake area is required for screening arriving patients. This area should have waiting-area seating for about 50 people. Also needed are a registration desk for paperwork and an area for patient assessment and classification. The intake area should be near an entrance to the facility. There should be a nearby loading/unloading area for buses and ambulances. It should be physically separated from the patient area of the CBCC.
- Pharmacy – The CBCC pharmacy needs a space about 25' x 25', with a few tables for processing orders. It should have sufficient free-standing shelves and cabinets. Longer-term bulk storage will be kept in the supply area. The pharmacy should be securable with a locking door or other mechanism.

It should have access control so that only authorized CBCC staff can enter.

- Morgue – The CBCC needs a space to be used as a temporary morgue. It can be as small as 20' x 10' but must be securable and near a loading entrance to the facility. No refrigeration is required (remains should be collected at least daily), but good ventilation is recommended.
- Supply – The CBCC requires ample space for storage of supplies, at least 4,000 square feet. This area should have a loading dock to receive deliveries of equipment and supplies separate from the patient area for noise mitigation, but near enough to the patient area for easy resupply of units.
- Ancillary Support – The Ancillary Support area is a staff area for clinical and other ancillary support services staff: respiratory, translation, data entry, mental health, etc. A 30' x 30' room with 4-5 tables and about 20 chairs will suffice.
- Medical Gases – The CBCC requires a space to receive and stage oxygen tanks. While oxygen concentrators will be the prime oxygen source, bottled oxygen should be considered and available for backup. A 30' x 30' area (indoor or outdoor) near to both the delivery dock and the patient area would be ideal. If tanks are refilled on site then additional requirements include an exterior, covered, well-ventilated, non-asphalt area to be used as a filling area. It should be about 20' x 40', accessible by truck.
- Command – The CBCC needs a command and control area that is quiet and away from patient and loading/supply areas. This area will contain supervisory, administrative and overhead staff. Specific needs include tables and chairs for about 10 staff, 25' x 25' minimum. It should be securable, and should ideally have a separate briefing room that can seat approximately 25 staff.
- Staff Support – Staff support facilities include a break room, restrooms for 25-50 staff, possibly a shower facility, and smaller private rooms for employee health and break/rest areas.

- Support Areas - The CBCC facility should be equipped with facilities and infrastructure for handling laundry, janitorial, food preparation, and other maintenance and upkeep tasks, separate from the areas described above.
- See Appendix 2 for the Sample CBCC Site Assessment Tool which incorporates these concepts.

Community Triage Points

A fundamental tenet of the CBCC operations plan is to use the facility to treat patients with specific clinical needs that can be cared for in the CBCC. This relieves hospitals and allows them to focus on patients in need of either non-pandemic influenza care or pandemic influenza care but requiring more care than could be provided in a CBCC. In order to utilize the CBCC's limited resources to treat the most appropriate patients, it is necessary to adopt a model where patients from the community can receive a medical evaluation off site. A determination can then be made as to the patient's clinical acuity and where the patient can be most appropriately treated (i.e., home, hospital, or CBCC).

During Stage I Activation of the CBCC, activation plan preparation begins for the establishment of the Community Triage Points. This involves the selection of an initial location where patients can be told to visit. There they will receive screening and initial treatment for the signs and symptoms of pandemic influenza. This would serve to decompress the health care system by asking patients symptomatic of influenza to avoid self-referral to the emergency department, urgent care centers/walk-in clinics.

Locations which are appropriate for a Community Triage Point include:

- National Guard armories, shuttered hospitals, airports, arenas, schools, churches, community centers, government buildings, hotels/motels, meeting halls, warehouses, gymnasiums, civic sports centers, health clubs, movie theaters and convention centers.

Ideally the location should have elements of the following:

- Sufficient number and types of existing communications (hardwire telephones and high-speed Internet ports)

- Adequate parking and area for bus access
- Utilities: electrical power (a backup generator is highly desirable), ventilation, heating, air conditioning, water and plumbing systems
- Separate rooms with large floor space for patient care or the ability to partition open space to separate patients
- Men's and women's restrooms
- Rooms for registration and family waiting area
- Climate control
- Waste removal ability
- Area for handwashing stations and other safe hygiene techniques
- Adequate staging areas for supplies and storage
- Wheelchair/handicapped accessibility
- Limited number of secured entrances and exits
- Location on or near public transportation routes

During Stage I Activation

Prepare to acquire the site and pre-position equipment and resources. This may involve contacting the proprietor of the location and making preparations to close the location and relocate staff and/or normal business functions.

During Stage II Activation

Staff report to the Community Triage Site to prepare the location for operation. This includes the internal and external setup of equipment and supplies, patient flow, demarcation and segregation of screening and treatment areas and access/traffic control measures. A Community Triage Site Leader would be identified to coordinate activities and request staffing resources for facility operation.

During Stage III Activation

The Community Triage Site should be staffed and open for operation. Level II clinical staff members screen patients via phone or in-person triage and dispositions are determined as discussed in Chapter V: Medical Care Plan.

Equipment and Supply Planning

After Community Triage Site selection and determination of the type and nature of CBCC services, the planning team should create a list of equipment and supplies for the Community Triage Point and the CBCC. The list should be scalable in nature and targeted to an initial number of patients, i.e., 50. It is a simple process of expanding this number to treat 100, 200 or 400 patients. Simply multiply by units of 50. A sample equipment list is in Appendix 7.

Creating the equipment list is essential to planning. Once the list is created it can be ascertained what equipment and supplies are already accessible through ordinary sheltering measures or POD clinics, etc. and which need to be procured for use once a CBCC is open. The planning team, especially the Office of Emergency Management, can help locate specific types and kinds of equipment. They can also determine if the equipment can be procured locally, through mutual aid agreements, or if vendors need to be contacted or MOUs drafted to ensure that the supplies are ready when needed.

The disaster scenario and the anticipated surge of patients into the health care system care will affect the supplies, pharmaceuticals and equipment which will be needed at a CBCC. This section assumes that resources stockpiled by existing health care facilities will be used by the facilities and unavailable for use by the CBCC. Therefore, in planning resource needs, the CBCC Planning Team should estimate the number of patients to be cared for based on the severity of various events and the anticipated impact to the health care delivery system, including supplies, pharmaceuticals and equipment.

Effective planning for sustainability at a CBCC is needed to maximize the use of limited resources. Planners should use the recommendations provided in this section as a guide to determine the types and quantities of supplies, pharmaceuticals, and equipment to acquire prior to and during a catastrophic event as well as the methods to obtain these resources (e.g., vendor managed inventory, contracts or Memorandum of Understanding depending on the parties involved, local stockpiles).

The governmental entity authorizing and managing the CBCC should plan to have adequate supplies and equipment to be self-sufficient for three to seven days. Enough pharmaceuticals should be on hand for at least the first 72 hours. Initially, this may come from pooling existing supply stock from the local community. Maintaining CBCC operations will require the identification of needed resources for operating this facility, developing a comprehensive inventory of existing resources, determining the resources gaps and developing procurement strategies to acquire needed resources.

In planning for the operation of a CBCC the Planning Team should consider three categories of resources: pharmaceuticals, supplies and equipment, including personal protective equipment for CBCC staff.

The disaster scenario and the anticipated surge of patients will affect the types of pharmaceuticals needed at a CBCC (for this toolkit the event is an influenza pandemic). Two types of pharmaceuticals should be considered: general pharmaceuticals that are commonly needed during emergency situations (e.g., IV saline solution) and pharmaceuticals specific to the type of event that caused the health care surge (e.g., zanamivir and oseltamivir for an influenza event).

Clinical resources used in everyday patient care may be needed in larger supplies during a health care surge. For example, intravenous fluids such as saline solution will be in high demand during a health care surge. The Planning Team should consider the potential volume of patients who may require intravenous fluids for a 72-hour period. The team should also consider the potential volume of patients who may require oral hydration.

Pharmaceutical substitutions may be required because of lack of availability (e.g. zanamivir vs. oseltamivir and doxycycline vs. cefuroxime). There are several alternative medications in each protocol in Chapter V: Medical Care Plan.

Inventory Management – Pharmaceuticals

The inventory must be managed to be effective when used. There must be a process to monitor expiration dates and storage dates. A process is needed for rotating stock from a cache into the

general inventory to minimize pharmaceuticals that may expire. When receiving pharmaceuticals from stockpiles, caches and other existing health care facilities, there must be verification that the pharmaceuticals are current. The stockpiling of supplies and medical equipment will be critical for CBCCs to function during a disaster. Key stakeholders must be included in the planning process to involve health care personnel familiar with health care supply and equipment needs as well as procurement strategies.

Inventory Management – Supplies and Equipment

Inventory management should include procedures to maintain supplies and equipment that have an expiration date or require ongoing maintenance. For example, batteries must be replaced periodically and equipment needs to be maintained. Compatibility and universality must be considered because supplies and equipment may become outdated or noncompatible due to technological advances or changes in ordering patterns. Therefore, the Planning Team should assign personnel to check the supplies and equipment during the setup of a CBCC and once supplies and equipment are received to make sure they remain usable.

National equipment and supply vendors provide a range of services for supplying, storing and distributing equipment. Regional vendors may offer only specialized services. Some contracting arrangements can be made in advance on a “contingency” basis so that contracts can be implemented rapidly when an emergency occurs. In the pre-planning stages it is possible to develop contracts, purchase orders, vendor relationships and inventory reallocation plans. If the entire equipment and supply process is to be arranged under a comprehensive service contract, during the facility assessment, the CBCC Planning Team should include a representative of the selected contractor. The representative will be responsible for much of the time-sensitive ramp-up during the week before opening.

Vendor-Managed Contract Considerations

After it is set up, a CBCC may rely on vendors for maintenance of their supplies and equipment.

The vendors or suppliers who manage supplies, pharmaceuticals and equipment must ensure proper maintenance during storage. The maintenance of such storage items may need to be serviced by multiple vendors. This group may play a large role in ensuring that materials work correctly during a health care surge.

Key considerations when evaluating requirements with outside vendors:

- Understand the process for the rotation of stock and inventory (control management).
- Understand the “days-on-hand” inventory of the vendors. This may guide the CBCC determination on what quantity of supplies, pharmaceuticals and equipment to order at one time.
- Clarify the process for the delivery of material to the CBCC; pre-identifying specific locations where possible.
- Identify any “disaster clauses” within the contract and understand the requirements of the vendor.
- Understand the options of how and where the supplies, pharmaceuticals and equipment will be delivered during a health care surge.
- Identify the vendor lead time for delivery of critical supplies, pharmaceuticals and equipment.
- Understand the rotation stock and inventory (control management) agreement.
- Identify payment terms under a health care surge catastrophic emergency.
- Understand how often your vendors’ inventories are replenished. .

Storage Considerations

Supplies, pharmaceuticals and equipment must be immediately accessible. Space is a very important consideration in determining storage locations. Sites selected for disaster operations often have inadequate space to house equipment and supplies. Planners must prioritize what to include in the on-site storage space and identify where other resources will be stored.

Environmental management of storage space for pharmaceuticals and supplies/equipment is critical. The chemical nature of pharmaceuticals puts them

at risk of premature deterioration. This may affect the efficacy of the drug and safety of the patient. Many pharmaceuticals are affected by temperature and have specific storage requirements such as “controlled room temperature” or “refrigeration.” There must be a process to monitor the environment of pharmaceuticals to meet the U.S. Pharmacopeia standards. Supplies and equipment items are also affected by temperature. Significant variations can affect the durability and quality of the material. For example, some personal protective equipment must be stored at specific temperatures. In planning storage for a CBCC, the Planning Team should ensure that manufacturers’ storage guidelines are met.

Transportation

Transportation must be considered in planning how supplies and equipment will be moved from a storage site, cache or stockpile to the CBCC. A transportation plan should be in place to designate the primary mode of transport and alternates. Most Offices of Emergency Management or Emergency Operation Centers have transportation plans which can be used in development of the CBCC plan. Consult your emergency management partners when discussing the transportation of equipment and supplies between Community Triage Points and CBCCs.

Staging Considerations

Most CBCCs will have limited storage capacity, particularly in close proximity to disaster triage and treatment areas. Because disaster supplies are not routinely used they are often relegated to the least convenient available space, sometimes in off-site warehouses. This can result in altered standards of care as CBCCs retrieve their supplies from various storage locations.

One option is to identify a small storage area near the identified site. This area can be used for the “first push” of the supplies likely needed in the first moments of a crisis. For example, a small collection of cots, linens, gowns, and medical supplies could be gathered here. If space allows, a tent, lights and generator can be added if it is needed to sort through supplies and equipment. If environmental conditions are adequate, pharmaceutical supplies might be included. As

the event evolves and additional supplies are needed, the more remote storage areas can be tapped to replenish or supplement the first push of supplies. Plans to retrieve additional supplies should be activated as their first set is deployed.

If space is sufficient, the “first-push” supplies may be packaged in a cart or trailer to speed deployment. Consideration should be given to route between the storage site and the destination to ensure that the cart or trailer will clear obstacles. A detailed inventory should accompany the first push of supplies, indicating “what” and “how many” of each item is immediately available, and where additional supplies are located. In this way they can be acquired by staff who may not know how the supplies are organized and stored.

A sample list of equipment and supplies is in Appendix 7.

Training and Education

Training and education of command staff, volunteers and essential personnel begins well before the incident. Within the public health emergency preparedness planning cycle, individuals identified in the CBCC plan as having a designated functional role during operations should receive training in their anticipated duties. This training ensures that the staff members have the knowledge, skills, and abilities to perform. It is separate from the “just-in-time” training that will occur on site at the time of the incident. This pre-event training is designed to orient the worker to the incident and the facility and acquaint them with specific operational issues that will be present during the event. Just-in-time training is not designed to educate a supervisor or command-level person to their position.

Training of command-level personnel begins well before the specifics of the CBCC plan are even discussed. In accordance with the National Incident Management System (NIMS), individuals in command-level positions should be trained in the Incident Command System (ICS as well as NIMS). The specific requirements of training typically include ICS-100/200/300/400 as well as IS-700/800. In addition to ICS and NIMS training, the staff anticipated to fill the highest roles in the CBCC should receive functional role training.

It is common practice to identify three people as backup for each individual identified as key or essential personnel with command or senior-level positions in the ICS plan. This redundancy is suggested in case the individual originally trained is unavailable, or unwilling to perform his/her anticipated functional role in a disaster. This backup training also allows for other individuals to relieve first-line personnel when operational periods end and new operational periods begin. Staff should be identified to fill positions as similar to their day-to-day job duties as possible.

Specific requirements of each functional role are outlined in job action sheets in Appendix 1.

Chapter III

Organization and Operations

Introduction

This chapter discusses the organization and operation of CBCCs and how to support them when they're in operation.

Applying Incident Command Systems to CBCCs

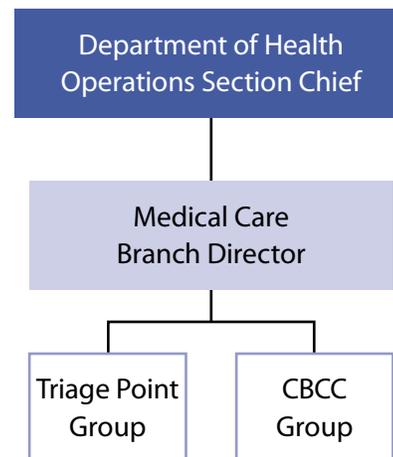
To manage public health emergencies, it's essential to work within the structure of the incident command system (ICS). This system is mandated by the federal government as part of the National Incident Management System (NIMS). Its purpose is to promote interoperability among agencies and jurisdictions during a major incident. The advantage of using the ICS system to manage a CBCC is that it will integrate with your local agency's existing system of operation, allowing for a predictable system of incident management.

A CBCC may be in operation for several weeks or months. Because it is unlikely that this will be the only health department functioning during this time, it's not recommended that the Public Health Director or Commissioner of Health be the CBCC Director. During a pandemic, other essential public health functions will continue to be performed. They include: epidemiological investigation; case and contact tracing; isolation and quarantine; disease surveillance and some routine health department functions. The health department should operate in its ICS structure with the agency head or its designee as the incident commander. Under the ICS structure of your agency the provision of direct patient care will occur as a function under the operations section, similar to the operation of a Point of Dispensing (POD). The Medical Care Branch will then be led by a Director who will report to the Operations Section Chief of the Health Department ICS structure which in turn will be a part of the county ICS structure.

Medical Branch Command Structure

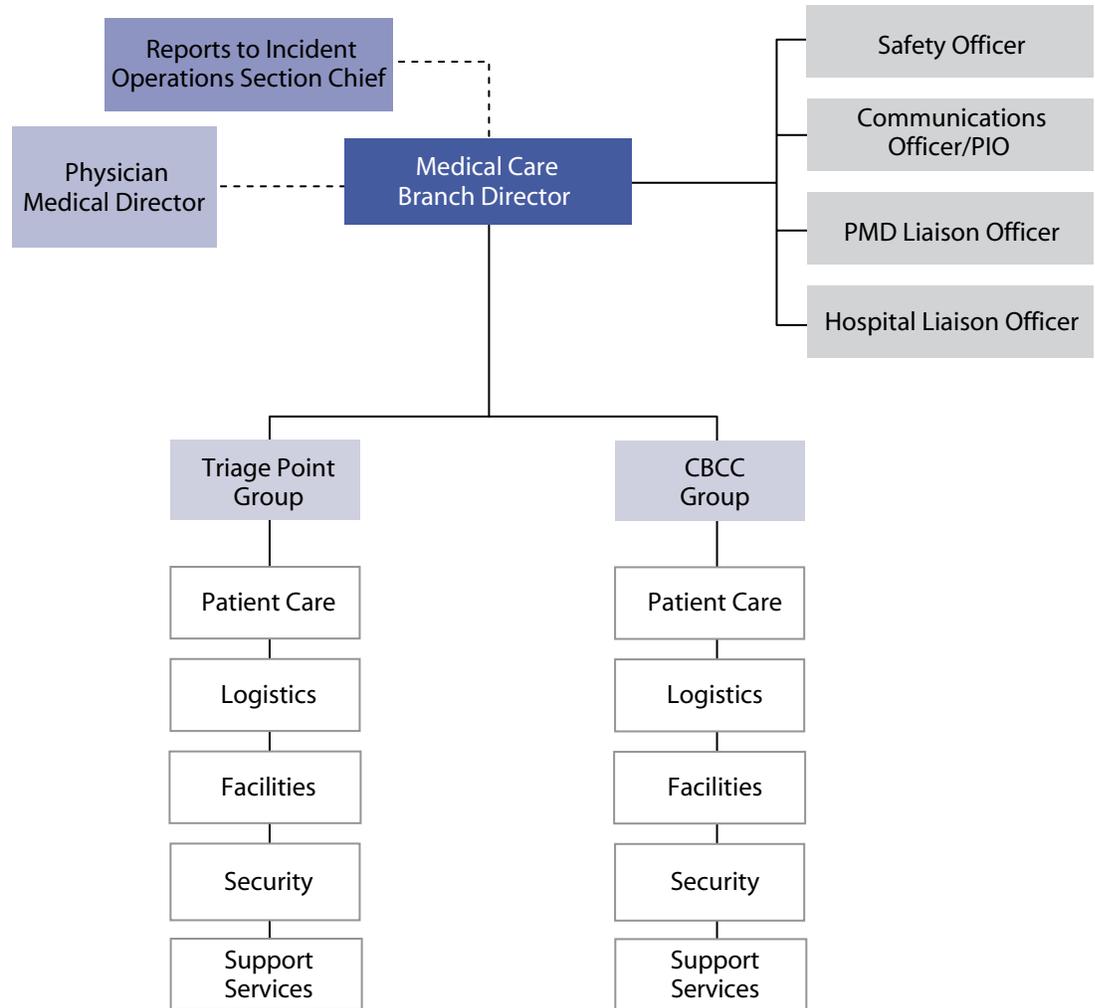
Incident Command Managed Through Local Emergency Operations Center

- Agency Incident Commander is located at agency EOC
- Medical Care Branch Director reports to Operations Section Chief
- Triage Point Supervisor and CBCC Supervisor reports to Medical Care Branch Director



Sample Medical Care Branch ICS Structure

A sample ICS structure for Medical Care Branch is located below. Functional roles and Job Action Sheets for Branch-level staff are located in Appendix 1.



As seen above, the Medical Care Branch concept of operation involves the establishment of both Community Triage Points and CBCCs. Each is critical in managing a population-based public health event such as a flu pandemic. Depending on the scope of the event you may choose to open several CBCCs or Community Triage Points under the Medical Care Branch. As discussed, both the Community Triage Point and CBCCs will have a

supervisor who will report to the Medical Care Branch Director. Both groups will have similar functional areas because they will be in different locations. They will, however, require independent operational and administrative support. The Medical Care Branch Director will be responsible for the coordination of resources among all community triage points and care centers.

Applying Incident Command Systems to CBCC Operations

The CBCC's Group Supervisor is responsible for the operation and management of the location. Four units will report to this supervisor: Patient Care, Facilities, Logistics and Support Services. Each functional unit will be led by a unit leader who will coordinate work functions within each operational unit.

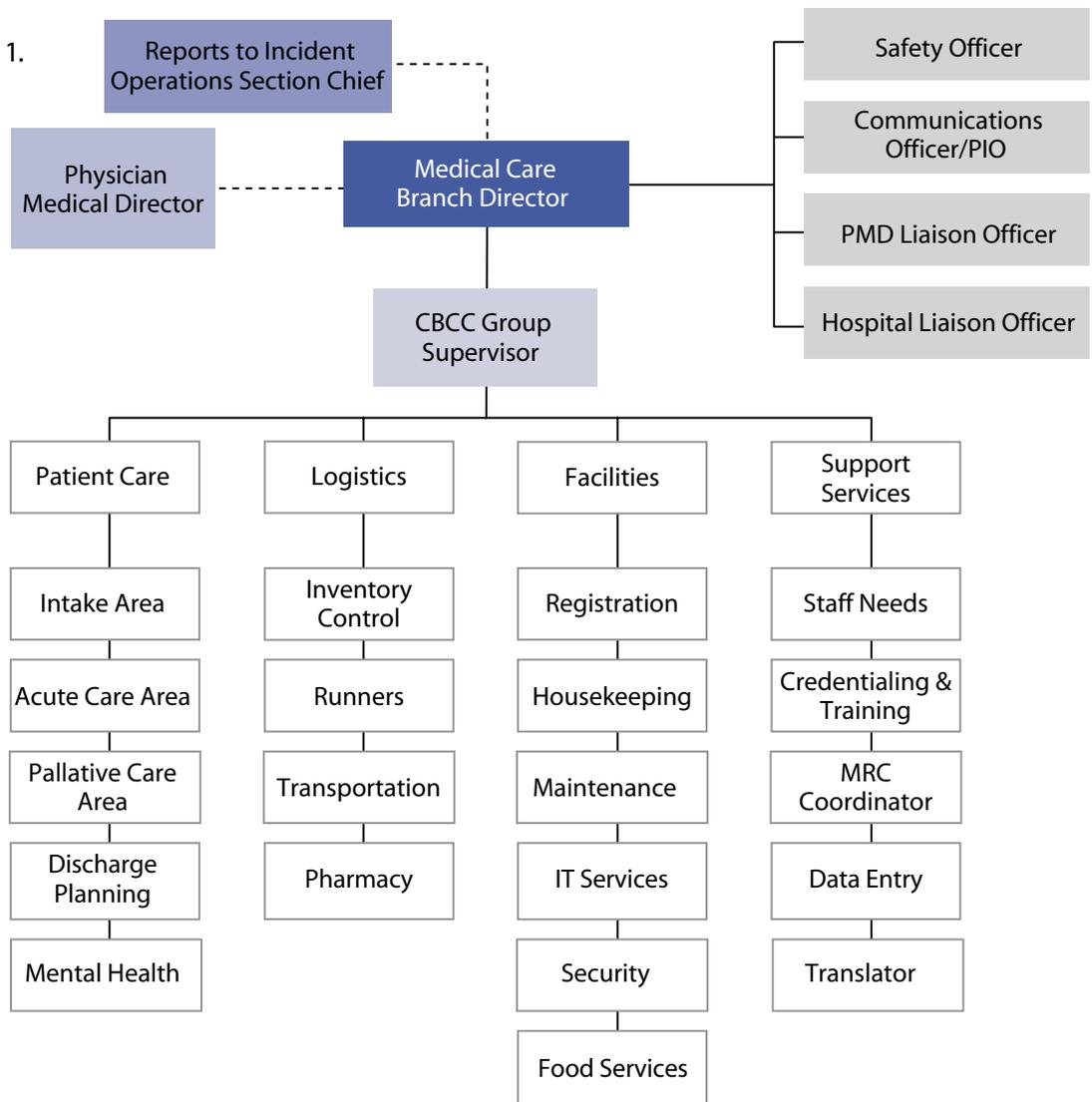
Care Center Command Structure

Incident Command managed through Local Emergency Operations Center

- Agency Incident Commander is located at Agency EOC and reports through county EOC
- Medical Care Branch Director reports to Operations Section Chief
- CBCC Supervisor reports to Medical Care Branch Director
- Unit Leaders report to Care Center Supervisor

Sample CBCC ICS Structure

A sample Care Center ICS structure is below with functional roles and job action sheets described in Appendix 1.



Applying Incident Command Systems to Community Triage Point Operation

A Community Triage Point Group Supervisor at the Community Triage Point will be responsible for the operation and management of the location. Four units will report to this supervisor: Patient Care, Facilities, Logistics, and Support Services. Each functional unit will be led by a unit leader who will coordinate work functions within each operational unit.

Although the four main units of operation for both the CBCCs and the Community Triage Point are similar, there are some units that appear at the Community Triage Point and do not appear at the CBCCs. They include: Triage; Observation Area; Holding Area and Home Care Preparation. Other units also appear at the CBCCs but are not

present at the Community Triage Points. They include: Pharmacy; volunteer coordinator or other local pre-event volunteer program; Palliative Care Area; Acute Care Area and Discharge Planning. There is also a small food services' function because patients will remain at the Community Triage Point for fewer than four to eight hours.

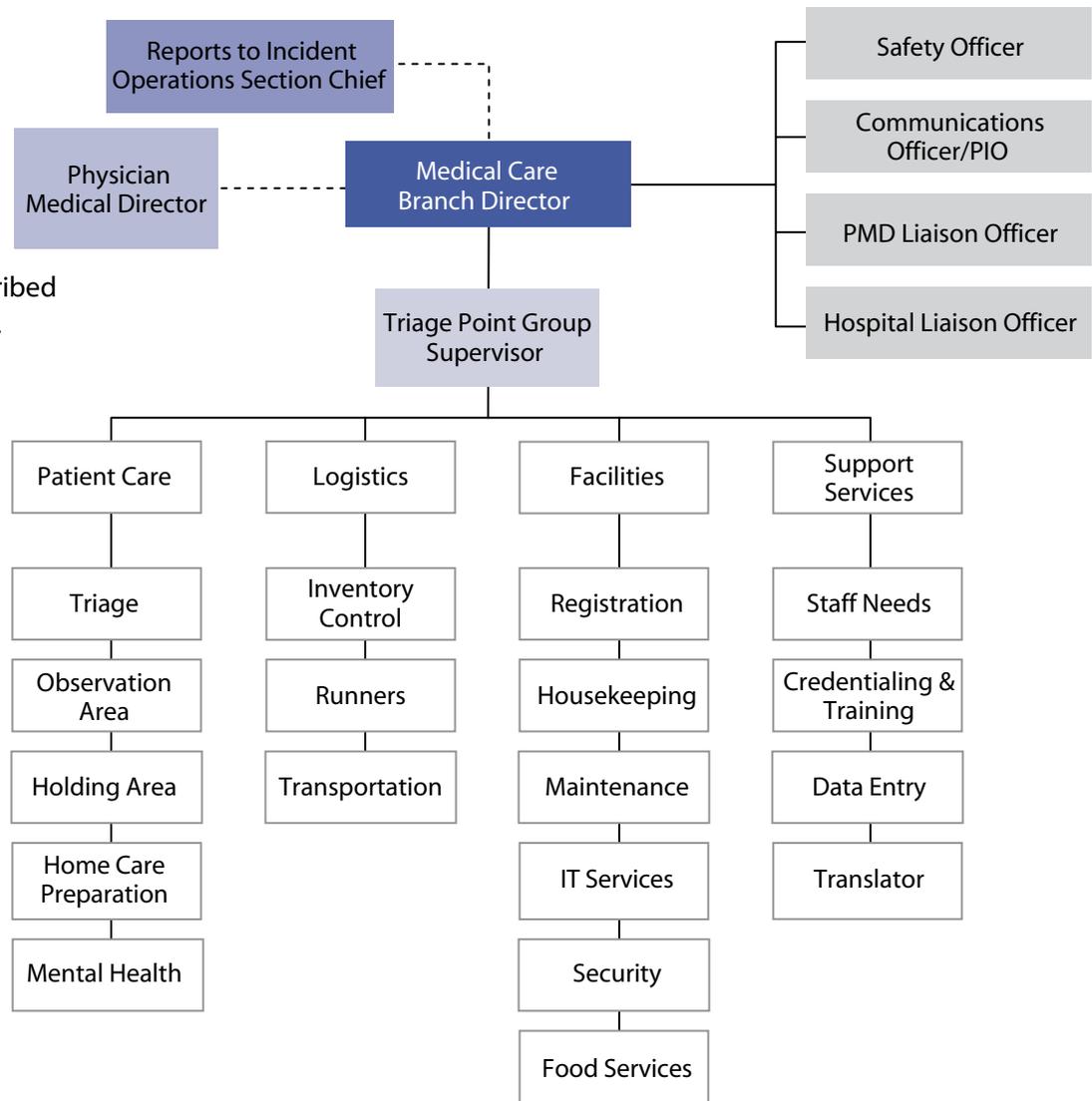
Triage Point Command Structure

Incident Command Managed Through Local Emergency Operations Center

- Agency Incident Commander is Located at Agency EOC and reports through County EOC
- Medical Care Branch Director Reports to Operations Section Chief
- Triage Point Supervisor Reports to Medical Care Branch Director
- Unit Leaders Report to Triage Point Supervisor

Sample Triage Point ICS Structure

A sample Triage Point ICS structure is located on this page with functional roles and job action sheets described in detail in Appendix 1.



Activation Triggers

The following situations predict that a hospital's capacity in the community, including surge, has been reached or will be reached requiring activation of the CBCC plan:

- hospitals report long wait times in emergency rooms due to patients presenting with flu;
- a hospital's surge capacity plan is activated;
- epidemiologic clues of an emerging infectious disease;
- confirmed cases of pandemic flu within your jurisdiction, and
- requests from neighboring counties or states to transfer or accept patients into your health system due to overcrowding.

It is important to have predetermined activation triggers which delineate at which point initiation of the CBCC plan is needed. Examples of these triggers are as follows:

Hospital or Medical Center Request

In accordance with the hospital surge plan, admission status and hospital workforce and resource utilization will be monitored and appropriate action steps initiated. The hospital CEO should notify County EOC for possible CBCC activation if the following are true: the hospital is having difficulty accommodating patients given their normal methods of census control; it is not able to transfer patients to neighboring health care facilities and/or the volume of CBCC eligible patients are drawing resources from more critically ill patients. At any point when hospital surge has been reached or exceeded, the hospital CEO may request that the CBCC be activated. For example, a hospital may notify the local health department (LHD) if their surge plan is in place with 50% utilization. It also may request activation of the CBCC if they expect 100% utilization within 72 hours. The Appendix includes a sample table that an LHD can modify and use or offer for a hospital's use to determine when they have reached these activation triggers.

Health Department Initiation

Local health departments should pay particular attention to the capacity of the health system within their city/county. This will require pre-event determination of the county's total health care capacity, including surge planning and segregation of the capacity into levels of care required. Specific emphasis should be placed on capacity for patients who could be cared for in a CBCC. This is needed since the goal of activating a CBCC would be to increase the hospital's capacity to care for non-CBCC appropriate patients. During a possible public health event, surveillance should be extended to daily contact with hospitals and medical centers within their area. The percentage of occupied beds and the status of ventilators, pharmaceutical supplies and staffing levels should be queried to determine if the health system is being overwhelmed. This should occur along with routine monitoring of NYSDOH Hospital Emergency Reporting Data System (HERDS) and related health data systems. The LHD will determine the need for activation of a CBCC based on reaching actual or potential capacity thresholds within the county's existing health care system. This includes implementation of surge plans for all sectors of the health care system.

In practice, this will occur upon request from an area hospital, medical center or governmental public health agency (i.e., NYSDOH, CDC), or when epidemiological surveillance systems have indicated that there are pandemic flu cases within the region of sufficient quantity to predict that the health care capacity of the county will be exceeded. When this occurs, the local Commissioner of Health may recommend to the local executive the initiation and/or operation of a CBCC within the county. Appendix 9 includes a sample table that an LHD could use to assess the health care system capacity in their county and establish thresholds for activating a CBCC.

Office of Emergency Services/ Management Request

The Office of Emergency Management or Bureau of Emergency Services in your county may have additional reasons to request that a CBCC be activated. The agency may request the local executive to activate the CBCC plan if the following are true:

- 911 call volume is extraordinarily high and emergency medical services resources are being overwhelmed;
- private ambulance companies are reporting that they do not have the resources to transfer out or decompress area hospitals due to volume or manpower shortages, or
- there is an indication of increased absenteeism among area schoolchildren.

Individuals Authorized to Activate the CBCC Plan

As discussed in Chapter I, the authority in this model for a CBCC rests with the local executive. The local executive may make this decision based on recommendations from certain individuals or the executive may designate who will activate the CBCC plan. Only select individuals will be able to ask the county to activate the CBCC. In many cases this authority may be limited to the Commissioner of Health, and in his/her absence the Associate/Deputy Commissioner of Health.

Activation Stages and Action Steps

When the decision to activate the CBCC plan has been made, several steps must be taken simultaneously in order to activate the plan. Most public health emergency planners recommend a staged activation over 72 hours until the CBCC can be fully equipped, staffed and operational. It is recommended that the Emergency Operations Center (EOC) be activated as early in the activation process as possible (in most cases the EOC activation will precede the opening of the CBCC) and that resources of county agencies be used to assist in the activation. All decisions during the activation stages should be made together with, and communicated to, the designated health representative at the County EOC.

Activation Stage I: STANDBY

- Notify critical staff as outlined in your CBCC plan.
- Work with BES/OEM to coordinate logistical resources to pre-position equipment and supplies.
- Notify and begin preparation of Community Triage Points.
- Notify and begin preparation of the CBCC Site.
- Vendors notified to prepare shipments of equipment and supplies to pre-selected areas.
- Planning for in-time training begins.

Activation Stage II: ALERT

- Critical staff activated.
- Volunteers are placed on standby.
- Essential personnel to report to CBCC site and begin setting up.
- Community Triage Points equipped and essential staff to report.
- Site security plans initiated.
- Public notification/communication begins.
- Just-in-time training conducted.

Activation Stage III: OPERATION

- Patients arrive at Community Triage Points and CBCCs.
- Full CBCC operations underway.

Notification of Critical Personnel During Activation Stages:

Activation Stage I

Notification of critical personnel includes the following:

- County Executive/Mayor;
- Local Commissioner of Health*;
- Commissioner, Office of Emergency Management/Bureau of Emergency Services, and
- Hospital CEOs.

*Upon notification of critical personnel during Stage I, the Commissioner of Health will initiate the Incident Command System within the agency and will designate an individual to assume the duties of the Medical Care Branch Director. The Medical Care Branch Director will determine when to direct the contact of people trained to support the "Essential Functional Roles" as outlined in the CBCC organization plan (see Appendix 1).

Activation Stage II

- Notification of critical personnel includes the following:
- The Medical Care Branch Director will direct individuals assigned to "Essential Functional Roles," as described in Appendix 1 to report to their assigned locations to prepare to open the CBCC; and
- The LHD Volunteer or MRC coordinator is responsible for arranging staffing to fill "Essential Functional Roles."

During Stage III Activation

- Notification of critical personnel includes the following:
- Notifications are complete; and
- All systems, personnel and processes are in place and the CBCC is in operation.

Chapter IV

Logistics and Administration

Introduction

This chapter discusses the logistical and administrative functions of the CBCC and how they should be supported during plan activation.

Site Logistical Support

Patient Registration

During a health care surge, it is reasonable to expect that most staff resources in a CBCC will be devoted to patient care. Specific administrative functions may also need to be modified due to limited technology at the CBCC or the staff's inability to collect personal data or insurance related information from the patient. Surge planning should include developing a modified registration form for use during surge conditions.

The recommendations in this chapter are based on the following concepts:

- Collect minimal necessary data. Given that an unanticipated disaster may severely limit the capability of health care providers to obtain and transfer information, a manual tracking system should be simple to use and focus on collecting minimal data elements;
- Assign patients a unique identifier. Establishing unique patient identifiers, or disaster incident numbers, is an essential function of an effective tracking system;
- Patient tracking is a high priority. Be prepared to track people seeking treatment at health care system entry points (e.g. hospitals, hospital alternate care sites, and emergency medical systems) during a health care surge, and
- Paper-based tracking is an essential contingency. Although significant efforts are underway to develop robust, electronic patient tracking systems for disaster and emergency purposes, manual back-up processes should be maintained in case of system failures. Paper-based processes reduce compatibility issues when sharing data.

Required Data Elements for Billing Through the Federal Emergency Management Agency (FEMA)

Reimbursement for operation of the CBCC will be based on time and materials. Documentation on the number and type of patients treated may be required as justification for time and material charges. Minimal data elements include:

- Patient name
- Permanent and/or temporary displacement address
- Telephone number
- Disaster-related medical conditions or pre-existing condition flareup
- Specific services rendered
- Cause of injury or illness
- Date and time
- Location of treatment
- Provider
- Provider license number
- Medicaid/Medicare ID number
- Provider signature
- Documentation of care to specify moment of care or stabilization
- Indication of whether treatment is for medical stabilization or regular medical care

Patient data should be manually entered from written registration forms into a central patient tracking database. Data entry will be performed by trained volunteers who are members of the Support Services Unit.

Tracking Inventory

The lead agency's Logistics Section Chief will establish an inventory control system for the Community Triage Points and CBCC operation. The system will include the recipient of listed items, identification of essential items, documentation of types and quantities of all medications/materials, and their location. Lot numbers for all medications must be recorded for future

reference. The system of logging and tracking items should be computerized as soon as possible.

Depletion of Medications/Supplies:

If medicines, or the equipment/supplies needed to administer medicines, start to become depleted the Medical Care Branch Director or designated staff may develop a "hold strategy." The Operations Section Chief will immediately inform the EOC of the situation so that alternate supplies may be obtained from other facilities through the procurement process established at the county and/or state level.

Requesting the Strategic National Stockpile (SNS):

The criteria used to justify requesting the SNS should exist in the County's pre-existing SNS Plan. When the criteria are met and when local and regional resources are expended the lead agency will follow the SNS resource request chain found in the SNS Plan. Requests for materials must be coordinated through the County EOC to ensure that all requests from the EOC to the State Emergency Operations Center (SEOC) are consolidated.

Human Resources and Staffing

Human resources and staffing plans need to consider two linked but different issues. The first is to identify and, to the extent possible, pre-credential and pre-train, the human resources needed to supervise and staff the CBCC. The second issue is to build into the Human Resources and Staffing Plan the ability for timely staff acquisition. This is necessary because some staff will not be available. They may not be in the area at the outset of the event or they may become ill. Also, even though the number of staff that will be needed can be predicted based on the local plan, actual needs may vary due to changes in infection rates, virulence, medical complications and manifestations of pandemic influenza and how long the CBCC is needed.

The recommended guidelines identified in this chapter can be used by the CBCC Planning Team to develop plans to ensure appropriate and adequate personnel coverage of the CBCC

during a health care surge. These plans must take into account demands on personnel that will be called upon for hospital surge. It is important that the individuals used for the operation and delivery of care in the CBCC be distinct from those used for hospital surge. This will avoid double accounting and ensure that the CBCC has adequate staffing. It will also ensure that the CBCC can supplement the hospital's staff and avoid opening at the expense of the hospital's staffing needs. While these recommendations are based on emergency management principles and existing models they must be adapted to meet local needs with locally available resources.

Staffing patterns should be arranged so that the site can run for 24 hours with time allowed for breaks and overlap during shift changes. The length of operation of the CBCC is difficult to predict because the models for the length of a pandemic surge have a wide range of possibilities. At a minimum it should be anticipated that the CBCC will need to be staffed for several months. Station managers will make sure all staff are updated at shift changes.

Staff could be drawn from existing municipal and county staff and supplemented to provide the majority of staff through the Medical Reserve Corps (MRC) or local county health department volunteer programs and through the ServNY volunteer program.

As part of the planning for a CBCC the health department should identify sources to obtain staff. This should include:

- Determining the functional roles needed
 - A sample of all functional roles and associated job action sheets (including minimal skill sets and training requirements) can be found in Appendix 1. The majority of roles in a CBCC will be non-medical. It is predicted that all functional roles will need to be filled and remain distinct roles. At some point it may become necessary to have one individual fulfill several roles. This will be based on available resources, the overall County Emergency Operations Plan and the projected size of the CBCC.

- Determining the numbers needed for all positions
- Defining who will fill the leadership roles and who will provide back up if those leaders aren't available
- Assigning a primary individual for each leadership role can be accomplished by specifying a name or a non-disaster title (i.e. Health Commissioner, Sanitarian, Public Health Nurse Supervisor, etc.)
 - The preference would be to base the assignment on a non-disaster title so the plan will not be invalid if the person holding that title changes the plan.
- Training for the title to include any required pre-event training based on the plan so a trained replacement would be available
- Credentialing all pre-identified staff for their disaster role. This includes the following:
 - Verifying any required certifications or licensures based on the CBCC plan and functional role descriptions;
 - Participating in any required pre-event training based on the CBCC plan and functional role descriptions;
 - Determining availability and methods of contact;
 - Issuing identification for their disaster functional role, and
 - Enrolling all staff in ServNY.

This pre-event identification and credentialing will be conducted by the local Health Department. In some localities this may be done in conjunction with the local Office of Emergency Management as part of a local plan for central credentialing and registry of all disaster human resources.

As described above, in addition to pre-identified staff it should be recognized that once activated there will be additional staffing needs throughout the event. These needs, in compliance with ICS, should be handled through the Support Services Leader. The CBCC Staff Coordinator will then determine the best method for obtaining additional staff -- through their own resources, through the Volunteer Coordinator or via the EOC communicated through the ICS.

The Credentialing Coordinator (who may also be the staff, volunteer and/or training coordinator, depending on local resources and the size of the CBCC), under the supervision of the Support Services Leader, will be in charge of volunteer credentialing for all CBCC assignments and may also be requested to credential paid staff unless different methods are determined for paid staff. Medical licenses will be verified via ServNY. Volunteers who have a medical background will be required to show a valid medical license and photo identification when reporting to the Community Triage Point or CBCC. Non-medical volunteers will be required to show photo identification when reporting to the Community Triage Point or CBCC. Any training will be provided under the direction of the Training Coordinator. Depending on resources this may be the same as the Volunteer Coordinator and/or Credentialing Coordinator.

Volunteer agencies willing to assist with CBCC operations should be coordinated through the County EOC. All staff and volunteers who will be working in a CBCC site will receive just-in-time training and job action sheets. Minimal skill sets and training requirements are described for categories of positions in the job action sheets found in Appendix 1.

Planning for the Workforce

To effectively manage a CBCC, the Planning Team must consider staffing needs for site setup, site administration, clinical and allied health functions, support functions, and operation of the site command system. It is recommended that a Community Triage Point or CBCC staffing plan be established for the first 3 to 7 days of operation. During this time, especially if other health care facilities are involved, there may be no opportunity to call upon other organizations for assistance or to begin recruiting volunteers given the time necessary to implement these processes.

The CBCC Sample Estimated Staffing Levels for Health care Surge Scenarios Chart AHRQ Publication No. 06-0029, "Reopening Shuttered Hospitals to Expand Surge Capacity," provides guidance on staffing levels across the spectrum of staff needed to operate a CBCC. Excerpts from this document are in Appendix 8.

Setup Staff

The Planning Team should first determine how many staff will be needed to set up the CBCC and/or Community Triage Points. Many other factors should be considered, such as where the supplies and equipment are stored, the condition of the buildings to be used, cleaning needs, configuration of setup, electrical needs, and engineering needs. A key decision will be how a Community Triage Point and/or CBCC will be set up. The Planning Team should consider assessing areas within local government that have limited or no response role during an emergency. They should also consider private entities that could be on call to provide staff who have the capacity to set up a Community Triage Point and/or a CBCC. Consideration should be given to the American Red Cross, Boy Scouts of America, and large businesses such as department stores.

The Planning Team should consider additional options such as a housecleaning service for initial cleaning of the site or an engineering company to help configure the site. Local government should develop memoranda of understanding/contracts with these resources to describe the conditions and expectations for the scope of work to be performed during setup. The designated site setup staff should participate in training and exercises to test the process.

Clinical Staff

The Medical Care Plan in Chapter V defines three levels of providers;

- Level I

In most cases, the first level of provider would not be a traditional medical provider but a person with a propensity to learn the information and skills necessary to provide tasks assigned to this level. For example, a science teacher might be inclined to serve in this role.

- Level II

The second level of provider would be required to be on site, able to provide patient care and possess prior medical training and certification or licensure. This level of provider is also recognized as a very scarce resource during an influenza pandemic. As such, the

use of a Level II provider in the Medical Care Plan was kept to the lowest level possible so staff needed for these roles could be found from other sources. A retired nurse or school nurse might be recruited for Level II functions.

- Level III

A Level III provider is the highest level clinical provider who is a physician. This level of provider will be a very scarce resource during an influenza pandemic so this role has been defined in a way to allow physicians to fulfill their role off site. Level III providers will be able to continue helping the health care response while serving in other areas.

Identification of who will provide care in a Community Triage Point and/or CBCC is a critical decision. It is important to note that these disaster-defined functional roles at each level encompass multiple types of providers who, in non-disaster situations, represent distinct types of providers. In most cases they have specific licensure or certification. For example, Level II providers may include paramedics, nurse practitioners, registered nurses and physician assistants. This combination of non-disaster providers is possible due to the narrow scope of care provided in the CBCC and the specific pre-defined care protocols.

Clinical staff will be limited during a health care surge. Many will be providing care at other health care facilities or they may require care. It is likely that clinical staff at a CBCC will be arranged from the public or private sector. To recruit a clinical workforce, the Planning Team should consider using non-practicing, licensed health care professionals; tapping staff registries; examining local government resources and establishing relationships with existing hospitals, clinics, private physician offices, and medical or nursing schools.

Staffing plans should remain flexible in order to cover all necessary clinical roles. The Planning Team should consider the best use of clinical staff supplemented with support staff and family members. For example, the traditional role of an LPN could be expanded and family members could monitor patient vital signs before just-in-time training. Also, scenario-driven patient needs will affect staffing needs. For example, additional respiratory

therapists or staff trained in this function will be needed during an influenza pandemic.

Even with local planning, staffing a CBCC may require staffing resources not locally available. In that case, additional staffing resources must be requested through the County EOC. Requests for additional staff should be made by the Support Service Unit Leader to the CBCC Supervisor and up to the EOC. Staffing requests should be specific to ensure that resource needs are met. For example, when requesting a specific functional role such as a Level II provider one should also list the qualifications for that role as the EOC may not have that information (critical care nurse vs. pediatric nurse).

Health care workers less likely to be busy during an influenza pandemic include:

- Veterinarians
- Dentists
- Health care students
- Emergency Medical Services Personnel (Limited)

Support Staff

Much like a hospital, the operation of a CBCC involves support staff as well as clinical care providers to carry out various functions. Staffing considerations should include functions such as administration, food service, child care, laundry, traffic control, security, engineering, pastoral care, housekeeping, transport services and maintenance. The Planning Team should identify which functions can be performed by local government, community-based organizations, volunteer staff, and/or private contractors.

It is recommended that staff members be identified who can provide child care and dependent care (adults requiring supervision or support) for family members during a health care surge. To the extent possible these individuals should meet the same qualifications needed for these roles in non-disaster times. If applicable, this includes background checks for those caring for children. Also, it may help to establish contracts with outside agencies or vendors who will be responsible for providing qualified and licensed (if required) professionals for child care and dependent care.

In the event such contracts are not feasible, or agencies are not accessible, additional community resources should be identified as part of health care surge planning. Community resources may include schools (which may have available staff due to closure during a pandemic), faith-based organizations or other service organizations.

Staffing is likely to be the most challenging part of staging the CBCC operation. To effectively utilize support staff at a Community Triage Point and/or CBCC it will be important to identify the volunteer's skill sets. This way support staff will be assigned to areas where they can best use their skills.

Training

For workers and volunteers to be effective in a public health emergency they must understand what is expected of them and be provided with appropriate tools. Staff should be assigned to a Community Triage Point and/or CBCC workstations based on professional abilities and credentials, and the site's needs. They may be qualified to fill multiple stations, but they must understand that it is important that they function in the capacities that are needed. To be most effective, workers and volunteers should operate within the roles that they have been assigned. If individuals need more help, the supervisory staff should refer them to another workstation. The training can be divided into three types and provision of all three should be part of the CBCC plan:

- Pre-event
- Just-in-time
- Ongoing or update

Training should be consistent and provide prospective staff with an overview of their roles and responsibilities. Briefings are quick updates for workers that take place following training and are not a substitute for initial training. Trainings and/or briefings for everyone involved with the CBCC are critical. They should be coordinated by designated supervisors. Trainings and briefings should also be duty-specific (e.g. law enforcement, mental health, clinical). In a large-scale event it is important that everyone recognize and exercise control and command. A training session on the day of the assigned shift is necessary even for workers who have had pre-event training. Training may take

place an hour before the assigned shift but should be considered a mandatory component for all staff. This training, also known as “just-in-time training” should include, at minimum, a walk-through of the site (if possible), an orientation to the different workstations, an overview of site operations, security procedures and introductions to the area leaders. It is essential to the smooth flow of the CBCC and Community Triage Point operation that all workers understand what actions occur at each location. Area supervisors are briefed regularly by the Medical Care Branch Director and are responsible for providing workers assigned to their area(s) with training updates that are specific to their duties and responsibilities during their shift.

Training should be streamlined to accommodate the large number of workers, and plans to train multiple shifts must also be considered. A microphone or bullhorn should be used if a large group is addressed. The training should also take place in a room with adequate lighting in which trainers can be observed and heard by all.

Job Action Sheets define and describe tasks for workers at each work station. These Job Action Sheets should be included at each training session and provided to every worker and volunteer at the CBCC and Community Triage Point. Having tangible descriptions of tasks and duties in an easy-to-follow format helps workers know what is expected of them at the site. Upon arrival, each worker will receive a folder containing a job action sheet, shift schedule, operational procedure, floor plan and disease-specific material.

Experience in health department Point of Distribution/Dispensing (PODs) clinics has demonstrated that the first hour of the clinic is a learning opportunity for workers. Staff and volunteers need at least one hour to become comfortable with their jobs and the POD operations. Training is a critical component to successful operations. Training workers to effectively carry out their duties will enhance performance and foster efficacy for future mass prophylaxis efforts.

Staff Support

Staff members at each site should be provided all meals on site during their shifts. As resources

allow, staff may have access to a nearby hotel for lodging between their 12-hour shifts. Each location should provide psychosocial support for the staff through on-site mental health workers. Staff members should supply their own work attire. When reporting to work, staff should bring 3 changes of work attire in a bag labeled with their name. Resource requests for staff family members are addressed through the Planning Section Resource Unit.

Support Provisions for Staff

Unlike hospitals and other types of health care facilities CBCCs are not held to Joint Commission standards. However, Joint Commission requirements offer planning guidance to the CBCC Planning Team, outlining the support services that should be provided for staff to ensure that they are available and focused on patient care.

Support provisions under Joint Commission standards include:

- Activities related to care, treatment, and services (e.g., scheduling, modifying, or discontinuing services; controlling information about patients; referrals; transporting patients)
- Staff support activities (e.g., housing, transportation, incident stress debriefing)
- Staff family support activities
- Logistics relating to critical supplies (e.g., pharmaceuticals, supplies, food, linen, water)
- Security (e.g., access, crowd control, traffic control)

It is recommended that the Planning Team consider developing a staff support provision plan that includes psychological first aid and work force health and safety. It is also recommended that the CBCC Planning Team develop and implement a dependent care policy.

Transportation of Equipment and Supplies

Transportation of required equipment and supplies to and from the CBCC site(s) will be arranged through the County EOC, with the support of local and county municipal resources. Existing personnel, trucks and equipment will be used.

When items need security, transport will be coordinated using law enforcement for escort.

Agreements should be made with private transportation providers for trucks or other vehicles before the event. Contracts and/or MOUs should be drafted with input from legal counsel to secure these services before an incident.

Information Services

Computer technology will be used to support site operations to the extent practical, but it may be limited by personnel and/or equipment and infrastructure limitations. The basic administrative tasks may be conducted via a paper-based process, but computer technology is preferred.

The Information Services staff will support the following operational functions:

- Installation and interfacing of computer equipment, such as setting up work stations, networks (hardwire or wireless), network printers, internet communications, etc.
- Installation of software
- Troubleshooting computer, network, and software problems
- Providing just-in-time training related to computer systems
- If computer-based communication systems are employed (such as computer-based phone systems), they will support installation, interfacing, troubleshooting, and training related to these systems.
- Backing up all information in electronic storage (periodically and independently)
- Requesting hardware, spare parts, or supplies to maintain CBCC operations.

Communications Systems and Equipment

Communication and information technology capabilities for the operations of a CBCC are essential during a health care surge. Planners should include communication and information technology systems that are easy to set up and allow for communication between sites and the EOC. Communication systems should also link hospitals, law enforcement and suppliers. Core communication and information technology

equipment may be inaccessible during a health care surge. The Planning Team should prepare for a worst-case scenario and consider the following methods for internal and external communications as well as information technology support:

- Runners
- Portable/hand-held radios
- Disaster radios
- Portable public address system
- Telephone
- Cell phones/bullhorns
- Fax system
- Televisions
- Hand-held devices
- Laptops

Food Services

The CBCC will be required to provide a limited selection of food and beverages for staff and patients. In this context, staff include family members providing volunteer assistance. Although staff could prepare meals in the CBCC's food service areas, staff numbers will likely be limited. Therefore, employing a commercial food provider through a pre-event contract is recommended. If a contract vendor will be used for some or all of the food service functions they should be included in the CBCC planning team and be required to conduct site visits and assessments of the food service areas for potential CBCC sites.

Food Facility Requirements

Space will be required for the storage, preparation, and consumption of food. If possible, food should be stored and prepared away from the site, such as at a nearby restaurant, hotel, school or similar place. This separates the food preparation staff from the infection control area and protects staff from infection. Staff will transport prepared food to the site and return dishes and utensils.

Alternatively, the food service could be within the building but in a separate area such as in another wing or on another floor. On an academic campus the CBCC may choose to set up in a gymnasium, while the food is stored and prepared in the cafeteria of a nearby building.

Beverage and snack stations (fruit/breads) would be provided in the food consumption area of the site. It should also include microwave ovens to reheat food for staff only.

The food preparation area will require:

- A receiving/shipping area
- Commercial/restaurant-scale ovens, stoves, and microwave ovens; food prep surfaces; pots and pans, etc.
- Adequate storage space for refrigerated and frozen food
- Adequate storage space for nonrefrigerated and unfrozen food as well as supplies
- Dishwashing facilities if reusable dishes and utensils are used. It is unlikely that an adequate supply of disposables could be maintained. Commercial dishwashers are preferred to provide effective, sanitary cleaning.

Food Staffing

The Food Service function will manage food receipt, storage, preparation and distribution operations. A nutritionist experienced in hospital meal specification should be available (to field questions by e-mail or telephone). This person will work with medical and logistical support staff to determine nutritional needs and design appropriate meal plans. An individual knowledgeable in food preparation sanitation practices should also be stationed at the food preparation area. Adequate cooks and helpers should be available to prepare and package the meals. Support staff will be required to receive and wash dishes and utensils, and transport meals to the Community Triage Point. They will also receive and store incoming deliveries of food and beverages..

It is expected that the food service staff will be comprised of volunteers; however, the use of contract personnel may be possible. The potential pool of workers and volunteers will include food staff who won't need to report to their regular workplaces, such as school food service personnel whose schools will be closed. It is unlikely that volunteer organizations such as "Meals on Wheels" will be able to assist, since they will be heavily burdened providing meals to their normal, and perhaps expanded, home-based clients.

Meeting Dietary Needs

In general, patients will be provided with either a standard or a liquid meal as ordered by medical staff. Standard meals will be provided to staff and volunteers. Reasonable snack foods such as cereal bars and fruit will also be provided, if practical. The CBCC will follow the nutrition recommendations established by the New York State Health Department, to the extent practicable.

In addition to adult meals, pediatric nutritional requirements must be met. This will include milk, baby food, and both milk and soy-based formula. Due to an expected shortage of staff and large numbers of patients, meals tailored for food allergies will not be provided. But, the presence of high-risk allergens will be clearly labeled. This will be coordinated by the nutritionist. In light of the CBCC's circumstances it will not be expected to meet religious or cultural restrictions or nonmedical nutritional preferences such as vegetarian or vegan diets.

Linen and Laundry

Patient linens and clothing will be collected by the housekeeping staff in accordance with standard hospital linen and laundry-handling procedures and staged for transport to the designated laundry facility. Staff and volunteer laundry will similarly be collected by custodial services. Because staff for support services will likely be limited, it is recommended that laundry service be provided by contract with a commercial provider, preferably a provider to hospitals. Note that companies that normally provide service to hospitals may have trouble providing continuity of service due to competing workloads.

If the laundry service will be provided as part of the CBCC and not through a vendor, the laundry facility should be a separate facility, such as a commercial or hotel laundry.

If limited laundry facilities are available on site, they could be used for staff and volunteer clothing while external resources are used for patient-related laundry. If laundry services will be done by CBCC support staff instead of a contract vendor, an MOU may still be needed for a laundry facility unless one is located at the CBCC site.

Maintenance and Housekeeping

The maintenance staff would be responsible for issues related to the facilities and the physical plant. They include, but are not limited to:

- Establishing temporary partitions and barriers
- Power (including standby power)
- Ventilation
- Plumbing and drains
- Signage
- Public address systems
- Waste-staging areas
- Operation of powered lift trucks and other mechanized equipment
- Snow removal
- Essential building maintenance and repairs
- Refueling of vehicles and generators

Facility services could be provided by a commercial company by contract or by a public sector employer, such as a municipality or an academic institution through an MOU. Each would have staff with the needed skills.

Environmental Services

Housekeeping and maintenance at a CBCC require careful planning. General environmental controls should be in place before opening a site and providing patient care. The several hundred page, Guidelines for Environmental Infection Control in Health care Facilities, distributed by the CDC, is aimed at environmental controls that decrease patient illness from common infections. It offers guidance for a CBCC's environmental service requirements. The Planning Team should consider environmental services staff and/or contractors for the following functions:

- Cleaning the facility, including fumigation for pest control, to ensure sanitary standards before admitting patients.
- Maintain sanitary water, air and other environments throughout the course of operation.
- Launder bedding and other cloth goods.
- Dispose of medical and other waste (solid and liquid).

- The Planning Team may choose to establish contracts for disaster remediation and pest control; general waste management; hazardous waste disposal and laundry services.

Environmental services contracts should include specific language for the following tasks:

- General cleaning of surfaces and walls within patient areas including wet/dry methods; timing to repetition; appropriate materials and detergents/disinfectants
- Pest control
- Mitigation of the use of mists, aerosols and fumigants in patient areas and cleaning methods that disturb dust and distribute dust into patient areas
- Cleaning areas with immunocompromised patients
- Cleaning spills of bodily fluids
- Special care of carpeting and other cloth furnishings

The following environmental services supplies and equipment must be procured as part of the planning initiative:

- Environmental Protection Agency-certified detergents, disinfectants and chemical sterilants (including tuberculoids and germicides)
- Disposable mops, cleaning cloths, sponges and other cleaning apparatus
- Floor buffer/polisher and carpet cleaner
- Sweeping apparatus (note: Recommendations from the Environmental Protection Agency suggest minimizing the use of such tools because they may disturb and distribute dust into the air – use wet mops whenever possible)
- Industrial-strength vacuum with High Efficiency Particulate Air (HEPA) filter (and replacement)
- Containers and labels for hazardous waste
- General waste containers
- Cleaning carts and cleaning material storage shelves

Environmental Service Staff

A housekeeping/maintenance crew should be the first staff at the Community Triage Point and/or CBCC as soon as the Local Health Department has authorized its preparation. This team should note the specific instructions based on the facility assessment. They will clean a facility that has not had a medical grade cleaning and bring it to sanitary standards appropriate for patients. Housekeeping and maintenance staff will maintain the site and keep general orderliness and cleanliness during the preparation period while many people enter and exit the site. Cleaning staff may be reduced as patients are discharged, and the location is prepared for closure. A core staff should remain to shut down the facility and return it to a safe state of closure.

The housekeeping staff will provide custodial services including basic cleaning and the collection of noninfectious wastes. The priority for housekeeping services will be to support infection control and hygiene for staff and patients. This will include the cleaning of:

- Patient bed areas – Beds, bedside equipment, and other frequently touched surfaces should be cleaned as often as practicable.
- Medical treatment rooms – They will be cleaned as often as practicable.
- Spills – Potentially infectious spills should be cleaned up as quickly as possible using approved cleaning and disinfection agents.
- Food service and consumption areas

Medical Waste Management

The Planning Team should develop waste management protocols that address the challenges associated with the increased volume of medical waste.

Considerations in developing protocols for waste management include but are not limited to:

1. There will be an increased need for materials suitable for containing biological agents or infectious organisms. These materials are to include, but will not be limited to:
 - a. Bags labeled as biohazard
 - b. Sharps containers

- c. Liquid-handling containers
 - d. All other associated supplies
2. Each site should list the supplies with supporting information that shows:
 - a. The quantity normally on hand
 - b. An estimate of how long these supplies will last for an inpatient population level that's determined by the facility
3. If the inventory of materials or usage rate compromises patient care or waste containment needs, the site should contact the EOC in their jurisdiction and request the materials needed.

In planning the waste storage component of medical waste management, the Planning Team is encouraged to consider the following options:

1. A site may consult with medical waste disposal vendors for details of the vendor's ability to provide continuous waste disposal services during a catastrophic emergency;
2. A site may consult with county government for protocols regarding storage of medical waste during a catastrophic incident.
3. Medical waste may need to be stored under refrigeration (<32oF) to limit nuisance conditions. If the CBCC has exhausted its refrigeration resources, it should request assistance from the appropriate designee through the EOC.
4. Separation of medical waste from the solid waste stream is to be maintained.
5. Combined waste streams are to be handled as medical waste.
6. Waste stored on the premises of the CBCC must be secure to prevent access by unauthorized persons and to prevent accidental spread of contamination.
7. The designated storage area for medical waste must display the appropriate "bio-hazard" symbols.
8. Refrigerated storage areas need to be located away from external air intakes or be maintained with negative airflow.

Regulated Medical Waste

Regulated medical waste will need to be collected in appropriate labeled containers (e.g. "red bags" and sharps containers). As containers are filled, they will be collected by the housekeeping staff and staged for pick up in a designated, locked storage area. This storage area could be a small room in the building; a trailer; a Sea-Land container; a storage POD adjacent to the site, or something similar. Locked external storage is strongly preferred. It is presumed that the volume of Regulated Medical Waste generated regionally will exceed the capacity for pick up, treatment, and disposal by the customary vendors, especially in light of their expected reduced staffing levels. Therefore, an interim staging area will be established near the site for Regulated Medical Waste awaiting pick up and treatment. This could be a series of trailers, Sea-Land (or similar) containers, or unused warehouse or storage space. The method of storage should be reasonably resistant to rodent or other animal intrusions, provide protection from the elements, and should be secured to prevent unauthorized access. To the extent practical, tarps or similar methods should be used to facilitate cleanup of the area. Housekeeping staff will remove the Regulated Medical Waste from the storage area within the site each day; or more frequently if necessary, and transport it to the treatment and disposal staging area. Housekeeping staff will notify the logistics unit leader if and when additional storage containers or space are required. They will also monitor the inventory of empty waste collection bags and sharps containers.

Normal Waste (noninfectious and nonhazardous)

Garbage collection containers will be distributed as needed at the Community Triage Point and CBCC. Housekeeping staff will provide plastic liners, and collect filled liners as needed. Similar to the staging of red bag wastes, the garbage bags will be taken to a separate staging point for pick up by facilities staff. Because it is presumed that the normal pickup of trash may be disrupted, the facilities will place the garbage at a staging point. The staging point will preferably include containers (dumpsters, trailers) that inhibit rodent and pest invasion. It may be necessary to temporarily bury

the garbage if containers are not available. MOUs with governmental providers and/or contracts with waste management services should be explored regarding the placement of a dumpster at the CBCC site and/or daily/scheduled removals.

Demobilization

The decision to terminate operations will be made by the Incident Commander in agreement with the established unified command at the EOC. The Medical Branch Director will inform the staff when the Community Triage Point and CBCC will terminate operations and provide a general operations outline for how it will be done. News media and the general public will be advised when these sites are closing.

When opening any CBCC, or activating any stage of response, it's important to consider when and how to disengage. An exit strategy must be considered before opening any Community Triage Point and CBCC. Criteria for closing may include:

- Lack of staff resources
- Inability to provide adequate security
- Lack of medical resources
- Lack of necessary supplies
- Too few patients to justify the need
- Site is no longer needed

If there are logistical concerns when patients who are unable to return home are being cared for, adjacent Community Triage Points and/or CBCCs (through the EOC) will be asked if they can take on these patients. Hospital or nursing home care is also an option depending on the resources available at the time.

Chapter V

Medical Care Plan

Introduction and Planning Assumptions

The Medical Care Plan is the cornerstone for planning and operating a CBCC. As discussed in Chapter I, under the expected patient surge associated with pandemic influenza, the primary assumptions are that:

- 25% of the population will become ill;
- 4.4% of those who become ill will be admitted to the hospital;
- 15% of those admitted will require intensive care unit care, and
- 7.5% will require ventilator care.

Based on these factors and the CDC, HHS, DHS and NYS DOH projections, it is anticipated that between one and seven patients per week ,per 1,000 people in a community, will require hospitalization for which no staffed hospital beds will be available. During a health care surge, the delivery of care will be different. The standard of care may change based on available resources. The scope of a provider's practice may change based on need, sites of care may look different due to access issues, and the traditional methods of claims identification and submission may be forced to undergo adjustments that require practical solutions. Also, during a catastrophic emergency, the primary focus of the health care community will be to respond to the emergency and provide care to the ill and injured. These patients will benefit most via triage of resources

versus the non-catastrophic approach of providing each individual the care they need. These changes will require providers to work with health plan partners to ensure adequate provisions of care.

"Health care surge" has varying meanings to participants in the health care system. Given expected patient numbers exceeding hospital capacity, duration of surge, staffing, equipment and supply limitations, as described in chapter one, there will be a need for an alternative venue to provide medical care. This document describes the operation of one such venue, CBCCs. The development of CBCCs will follow when all available health care resources responding to injured or ill patients have reached maximum capacity. Developing a CBCC is a complex undertaking. That's why it's vital to be proactive and have a collaborative planning process. Part of the complexity is developing an ongoing communication and integration plan with the local health care delivery system. When developing the medical care plan and protocols, five basic criterion must be considered:

- Patient type
- Level of care
- Facility type
- Providers
- Equipment, supplies and financial resources

Patient Type

While it is difficult to predict the patient needs that will present at a CBCC, general assumptions can be made based on the type of catastrophic emergency. This medical care plan is based on a pandemic influenza event but it could be modified for other disaster situations. In any scenario, a CBCC's basic patient care requirements will need to accommodate the types of patients that present. One can divide patients into appropriate and inappropriate for a CBCC. Then, within the appropriate category, further subdivide into primary patient type and secondary patients types (should resource permit or need dictate):

	Appropriate	Inappropriate
Primary	<ul style="list-style-type: none"> Inpatient: Patient presents with care requirements from pandemic influenza that would be provided on a general inpatient unit Palliative Care: Patients in the CBCCs who shift to palliative care. 	<ul style="list-style-type: none"> Critical: Patient presents with complex and/or critical care requirements, such as surgery or intensive care unit needs.
Secondary (This category requires advanced planning not essential to the basic initial concepts of setting up a Community-Based Care setting)	<ul style="list-style-type: none"> Palliative Care: Patient presents with palliative care requirements or an existing condition with maintenance care requirements (e.g., renal failure, diabetes). The patient may be cared for depending on available resources and the skill mix of available staff. Inpatient: Patient presents with care requirements that would be provided on a general inpatient unit. But, the patient is not a pandemic influenza patient. Because the hospital is overwhelmed, s/he may need to be transferred from the hospital. 	

Level of Care

The level of care at a CBCC will differ from that typically provided by existing health care facilities because that care will be driven by resource availability. A CBCC, at a minimum, must have the ability to provide health care services sufficient to meet patient demands and alleviate the existing health care system during a health care surge. By providing basic services, the CBCC will be able to treat less ill patients who can be transferred from nearby hospitals, thereby creating capacity at the hospital for more critical patients. A CBCC may also treat patients who can not be cared for at home and under a scarce resource situation would be

best kept out of a hospital. For example, patients may present at a CBCCs with severe dehydration. These patients will require treatment with intravenous fluid to prevent further complications but may be cared for in this model outside of a hospital. The CBCC established to treat these types of patients will require specific supplies, equipment and staff, and will be dependent on resource availability during a health care surge.

The goal of care during a health care surge is defined as the utilization of skills, diligence and reasonable exercise of judgment to optimize population outcomes that a reasonably prudent person or entity with comparable training, experience or capacity would have used under the circumstances. Under normal conditions, providers are responsible for employing appropriate health and medical resources and responses to improve the health status and/or save the life of a patient. However, during a health care surge, the standard of care will shift from focusing on patient-based outcomes to population-based outcomes. According to the report, "Altered Standards of Care in Mass Casualty Events," (an AHRQ Publication, April 2005), providers should anticipate "...a shift to providing care and allocating scarce equipment, supplies and personnel in a way that saves the largest number of lives in contrast to the traditional focus on saving individuals."

Facility Type

When selecting a site for a CBCC facility, planners should consider that, at a minimum, the facility must have the ability to provide the level of care described in these protocols in a safe environment. Further description of site selection was covered in the earlier chapters.

Providers

The types of providers available to use in a CBCC will vary greatly depending on local resources. For the purposes of applicability of this care plan to different communities and situations, care providers have been grouped into 3 levels which are as follows:

Level 1 Provider – Person with no formal medical training but propensity to learn and provide in-time training.

Level II – Provider – Person with prior medical training and either certification or licensure that can provide directed care. The provider at this level will be the primary individual for assessment and choice of protocols in the CBCCs. Examples include Paramedics, RN, PA, NP, etc.

Level III Provider – Licensed physician who will be either on site or available via telemedicine to oversee care and provide complex medical decision making. May be an MD who does not have an active registration but is licensed, but should the situation allow, could practice under a waiver.

Protocol Format

This chapter contains the triage and assessment approaches and the medical care protocols. As this toolkit is designed to be used by planners for a CBCC, the protocols are written in a format for planning including items such as underlying assumption and reference materials and not in patient care format. These are not intended to be used in this format during the actual event by the providers although they would be used by the supervisors and directors. The providers during the event will have protocols that only contain the material needed to treat a patient.

Planning Assumptions

For the purposes of this initial draft document the following assumptions were made:

The event planned for is pandemic influenza

The purpose of the CBCC will be to provide care for patients who can be cared for in a non-hospital setting to provide decompression of the hospital and avoid certain patient arrivals at the hospital

The equipment, staff and resources at a CBCC will vary greatly from those available at a hospital

The primary patients planned for will be those with influenza or presumed influenza and its associated complications

Additional patient type may be admitted to the CBCC should resources permit (ex. Palliative care; hospital patients with minor conditions awaiting full resolution for discharge; home care patients, etc.)

Triage Protocol

Rationale

Triage is a continuous process of prioritizing patients based on the severity of their conditions and it is generally used when resources are insufficient for everyone to be treated immediately. Hospital emergency departments use triage every day to ensure that those patients most in need of care are seen first.

In a disaster, the goal of triage changes from addressing the needs of the individual patient to addressing the needs of the community. In a large-scale event such as pandemic influenza, the demand for care may exceed the available resources (medication, equipment, supplies and staff). During a large-scale disaster, the goal of triage would change from saving the individual to saving as many lives as possible using all possible community medical resources (including medical volunteers). When the need for care outstrips the hospitals' ability, saving lives may require the operation of CBCCs to supplement hospital care.

If CBCCs have been activated then medical resources are insufficient for the community's needs. Decisions will have to be made concerning what medical care can be provided, which individuals will be eligible to receive medical care, and where their care will be provided. Individuals requiring medical care will be triaged to determine the level of care required by each patient, and where their respective care can best be provided (hospital, CBCC, etc.). In a triage environment, doctors may decide that some seriously ill or injured people should not receive care because they are unlikely to survive, and that care should be provided only to those with the best chance of survival. This diversion from our routine operations has broad ethical implications and must be addressed in advance of an actual public health event.

Triage Goal

The goal of triage to a CBCC is to:

- Ensure patients get the most appropriate level of care in the most appropriate setting depending on available resources
- Reduce (when appropriate) the burden on hospitals
- Establish the priority requirements of the patient which addresses probability of survival, urgency of need, and availability of resources
- Be able to identify patients with the greatest chance of survival
- Be able to identify patients best suited for palliative care
- Identify clinical changes requiring intervention or a change in the plan of care
- Maximize efficient use of resources

Planning Assumptions

Planning assumptions regarding the triage of patients during a pandemic influenza event include, but are not limited to:

- A high infectivity rate may result in a large percentage of the population infected
- A more virulent novel virus could result in high hospitalization rates and critical illness
- Hospital resources will be overwhelmed
- Vaccines and antiviral may be unavailable or in short supply
- Telephone triage should be used to reduce unnecessary exposure of staff (and other individuals seeking care at the triage location) to infection
- Patient who can be cared for at home should remain at home
- Patients who are too ill to be cared for at home but who do not require mechanical ventilation might be referred to CBCCs
- Patients requiring mechanical ventilation should be referred to hospitals
- Patient with unstable preexisting conditions should be referred to hospitals

- Obstetrical patients with GA of 24 weeks or greater should be referred to hospitals
- The triage protocol may be used to triage patients from an acute care hospital to the CBCC and for primary medical doctor referral to the CBCC. In both cases, after triage, the referral will then flow through the existing incident management approach for patient movement.

Provider Level and Skill Mix

- Triage provides a mechanism to maximize available resources if accurate assessments are made. Triage could also result in wasting valuable resources if it's done improperly.
- Triage requires highly skilled and trained personnel.
 - Level III - Chief Triage Officer
 - Level II - Triage Staff needs to be proficient in physical assessment.
- Nonmedical - their role would be limited to traffic control, patient comfort issues, and taking vital signs.

Triage History

During triage, the triage officer will obtain a health history, allergies, current medication list and social history (focused on ability to be cared for at home). In addition to a general history, the following specific items should be discussed:

- Report of recent shortness of breath, cough, or tight feeling in chest
- Duration
- History of preexisting medical conditions for which they have recently been under the care of a physician such as: asthma; recurrent cough; COPD; congestive heart failure; heart disease; cancer; renal disease; pregnancy; diabetes; immunocompromised
- History of being hospitalized for respiratory or cardiac problems
 - Hospitalized in last year?
 - ICU admissions?
 - Intubation?

- Prescription home medications including over-the-counter and homeopathic
 - Why do they take each medication?
 - Do they have their medications with them?
 - When was the last dose?
- Allergies and any history of anaphylaxis
 - Latex
 - Medications
 - Foods

Assessment

The triage assessment should include: vital signs; pulse oximetry; mental status; breath sounds, and work of breathing with particular attention to following additional items:

- Able to say only short phrases before running out of breath
- Increased anxiety/restlessness
- Abnormal respiratory rate <10 or >18 breaths per minute (or abnormal for age in children)
- Coughing
- Wheezing – either audible or on auscultation
- Diminishing to absent lung sounds on auscultation
- Retractions--using accessory muscles in breathing
- Grunting in a pediatric patient
- Pulse ox < 94% on room air
- Hydration Status

Triage Guidelines:

Telephone Triage General Considerations

1. Much of the initial triage can be accomplished over the telephone
2. Prevents the unnecessary exposure of the population to infectious agents
3. Prevents unnecessary traffic
4. Will require the establishment of dedicated telephone numbers
5. Will require telephone numbers to be widely advertised over local cable channels, radio, and newspapers.
6. Will allow for health education of the public in addition to triage

7. Will require pre-scripted answers for staff answering phones
8. Individuals requiring care will be referred to the appropriate site
9. Individuals whose care can best be given at home will be advised to remain home
10. Individuals with difficulty breathing, acute respiratory symptoms or non-influenza complaints will be transferred to 911 for EMS services
 - a. Fever less than 104 F
 - b. Fever responsive to antipyretics
 - c. Able to eat and drink
 - d. No difficulty breathing
 - e. Urinated in last 8 hours
 - f. No unusual skin rashes
 - g. No comorbidities such as asthma, recurrent cough, COPD, congestive heart failure, heart disease, cancer, renal disease, pregnancy, diabetes, immunocompromised

Telephone Triage Questions:

1. What is the reason for your call?
 - a. If complaint is not related to influenza, transfer to operator receiving 911 calls
 - b. If ill, proceed to #2.
 - c. If requesting info regarding influenza, provide health education information.
 2. Are you, or is someone in your household, having shortness of breath or difficulty breathing?
 - a. If yes, transfer call to 911 for EMS services
 - b. If no, then do you or does someone in the family have a fever?
 - i. If yes then:
 1. How high has the fever been?
 2. What medication have you taken for your fever and when was the last dose?
 3. If antipyretics were taken did they help?
 4. How old is the individual with the fever?
 5. Does the individual have any of the following:
 - a. Sore throat
 - b. Muscle aches
 - c. Cough
 - d. Is the individual able to keep down liquid?
 - e. When was the last time s/he urinated?
 - ii. If >2 years age or < 70 years of age and all the below conditions are met advise them to remain home and provide home care education
 - a. Fever greater than 102.5
 - b. Flaring of nares of nose (infant)
 - c. Blue color around lips (infant)
 - d. Skin rash that does not blanch
 - e. Abnormal behavior or difficult to awake
3. Referrals to POD and antiviral clinics see CDC and NYSDOH guidelines
4. Refer to Community Triage Point if:
 1. Fever greater than 102.5 with sore throat, ache muscles, cough
 2. Unable to keep food or fluid down more than 24 hours
 3. Has not urinated in 12 hours
 4. No caregiver and unable to care for self
 5. Comorbidities such as asthma, recurrent cough, COPD, congestive heart failure, heart disease, cancer, renal disease, pregnancy, diabetes, immunocompromised

Community Triage Point General Consideration

- The CBCC must be protected from individuals who are not in need of care but whose presence may impede the care of others.
- Primary patient triage should be done at a site(s) off campus from the CBCC.
- Those needing to be cared for in the CBCC will first be triaged off site and then transferred to the CBCC.
- Patients who present to the off-site triage site will complete Patient Registration/Medical History Form.

- Patients may come through a prearranged plan to incorporate primary medical doctors in the triage approach.

Community Triage Point Triage Categories and Criteria

Patients will be initially signed in for triage and based on the initial interviewer's assessment placed into one of the following categories:

- Home Care Patient
 - Patient with greatest chance of survival and currently stable
 - Expected to be the majority of patients
 - Can be treated at home if household members or family are available to care for them
 - Clinical signs:
 - fever
 - cough
 - malaise
 - absence of cyanosis or hypoxia
 - At risk for dehydration but currently hydrated or rehydrated at community triage point and then able to tolerate fluids
- CBCC
 - Tend to be the very young or the elderly
 - May have comorbidities such as asthma, recurrent cough, COPD, congestive heart failure, heart disease, cancer, renal disease, pregnancy, diabetes, immunocompromised
 - Pregnant women (gestational age less than 24 weeks)
 - May progress to need ICU and ventilator support
 - Patients who could be cared for at home but who do not have a caregiver and cannot care for themselves
 - Dehydration that has failed rehydration and self-hydration trial at Community Triage Point in the observation area
- Hospital Care
 - Pregnant women (gestational age 24 weeks or greater)
 - May Require ICU care and may require ventilator support

- Respiratory failure
- Hypoxia unresponsive to oxygen or requiring $FiO_2 > 0.5$
- Shock
- Sepsis
- Requires monitoring which cannot be provided at CBCC
- Palliative Care
 - Near death
 - May be unconscious
 - Palliative care may be indicated

Community Triage Point Procedure

1. All patients presenting to the Community Triage point will be registered and assessed by a Level II Provider.
2. Patients triaged as home care should be:
 - Advised to return home for care by available caregiver
 - Provided health education material
 - Disease-specific literature
 - Oral hydration instructions
 - Antipyretic instructions
 - Given antivirals or vaccines as available and appropriate
3. Patients who meet the following criteria should be transferred to the Observation Area at the Community Triage Point:
 - Dehydration
 - Bronchospasm
4. Patients who meet the following criteria should be transferred to the CBCC:
 - Have no one to care for them at home and they require care
 - Need IV fluid support for dehydration having failed rehydration and attempt at self-hydration at Community Triage Point
 - Need supplemental oxygen
 - Need bronchodilators (new usage or more frequent than every four hours for patient already prescribed bronchodilators) despite initial treatment at Community Triage Point
 - Need antibiotic therapy or other medications not available at home

5. Patients triaged as Hospital Care should be transferred by EMS (or other means as the situation allows) to the appropriate hospital as designated by the Incident Command Center. In certain situations, due to a limitation of resources, patients triaged for hospital care may be admitted to the CBCC.
6. Patients triaged as Palliative Care will be admitted to the CBCC only if the nearest hospital is unable to accept them for care and at the request of the Incident Command Center.

Primary Care Provider Triage General Consideration

- Some individuals may first contact their primary care provider instead of going to a Community Triage Point
- The volume of patients presenting to Community Triage Point and exposure to other individuals can be reduced by using primary care providers for triage
- In order to use primary care providers for triage the following must occur:
 1. Training of the primary care provider in the triage protocol
 2. Registration of provider with either local emergency management agency or local health department
 3. Mechanism for primary care provider to communicate via the incident command system for each patient who was triaged by them and action taken. This can be done by either telephone or Web-based mechanisms

Primary Care Provider Triage Procedure

1. Assess patient per influenza triage assessment described
2. Place patient into triage categories as described for Community Triage Point
3. Refer patients triaged as Hospital Care to hospital or if unstable have them call 911
4. Patients triaged as home care instruct to remain home and:
 - Provide home care instructions
 - Provide phone follow-up assessment

5. Patients triaged as CBCC may either be sent to Community Triage Point or directly to the CBCCs (based on the local community decision regarding which is most appropriate for their operational plan and with communication through incident command system per local plan)
6. Patients triaged as palliative care should be instructed to stay home if feasible with medication prescription and care guidelines provided by primary care provider. If patient cannot be care for at home, refer to Community Triage Point.

Clinical Pearls /References

Additional CBCC Medical Care Protocols for Reference

US Centers for Disease Control and Prevention (CDC). FluSurge 2.0. Atlanta: CDC.

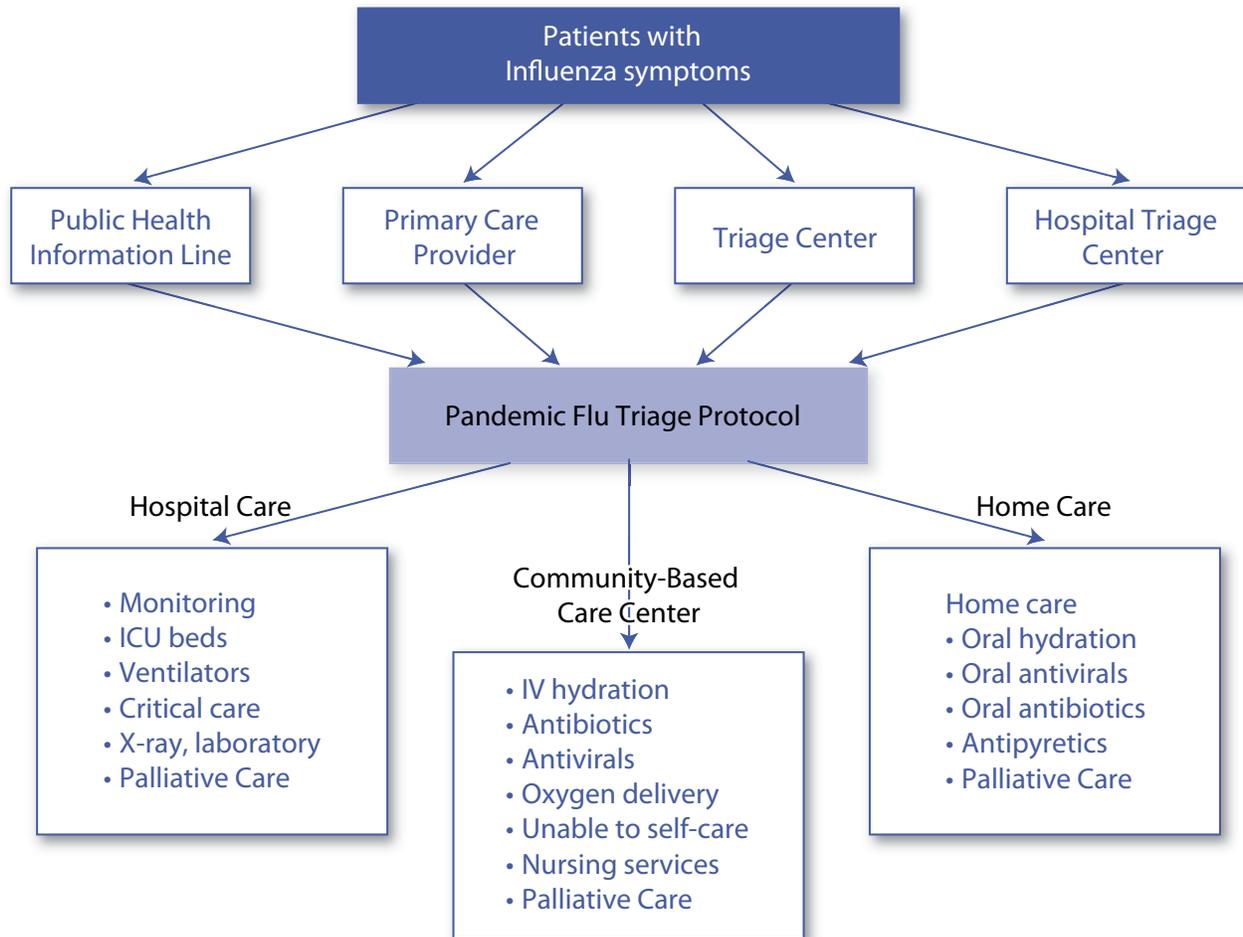
www.cdc.gov/flu/flusurge.htm.

<http://www.ahrq.gov/research/altstand>

<http://hospitalsurgemodel.ahrq.gov/>

EQUIPMENT
<ul style="list-style-type: none"> • Thermometers • Stethoscopes • Blood pressure cuffs • Pulse oximeters • Masks • Gloves • Gowns • N-95

Triage Approach during Pandemic Influenza



Notes:

- Influenza symptoms (may change):
High fever ($T > 37.8$) plus sore throat, cough or shortness of breath. Other symptoms: weakness, malaise, myalgias, chills, headache, nasal congestion, and (sometimes) abdominal symptoms.
- Pandemic flu triage protocol must consider:
Available resources: vital signs, examination, pulse oximetry
Patient: wears respiratory mask on presentation
Personnel: respiratory and standard precautions
Evaluation: age, living conditions, functional status, sick contacts
Other comorbid medical conditions

Community Triage Point Observation Area Protocol

Rationale

Patients with pandemic influenza presenting for care may have dehydration and/or bronchospasm. Of these patients, some may respond enough to initial treatment to then be eligible for discharge to home care and thus reduce the number of patients requiring care in the CBCC. As such, the provision of a trial of rehydration and/or bronchodilators is an essential part of a CBCC.

Treatment Goals

- Quickly improve hydration in patients using the least invasive methods possible which includes PO hydration and antiemetics. If these fail then institute intravenous fluid therapy to allow the patient to maintain hydration with PO fluids.
- Reverse bronchospasm and minimize the need for further bronchodilator therapy

Planning Assumptions

Planning assumptions regarding rehydration and bronchodilators provided during a pandemic influenza event at a Community Triage Point include, but are not limited to:

1. Influenza with the associated fever will likely lead to the need for increased hydration for all patients
2. A subset of patients who are dehydrated after receiving a brief period of rehydration and antiemetics if experiencing emesis will then be able to tolerate PO hydration
3. A subset of patients with bronchospasm who receive an initial course of bronchodilators and then either require no further bronchodilators or a treatment regimen which can be administered at home.

Provider Level and Skill Mix

Level I Provider

- a. Assess vital signs and pulse oximetry
- b. Provide oral fluids and oral medications
- c. Monitoring of intravenous fluids for empty bags

Level II Provider

- a. Reassessment of patient with abnormal vital signs
- b. IV insertion
- c. Changing of intravenous fluids bags and tubing

Etiology/Causes

Hydration is required by all individuals. In times of illness individuals may not be able to maintain hydration due to:

- Increased fluid needs due to fever
- Inability to tolerate PO hydration or lack of desire to take PO fluids
- Increased losses due to diarrhea and/or emesis

History

Obtain health history, allergies, and current medication list. With regard to issues of hydration specifically address the following:

- Oral intake of fluids in past 24 hours
- Urine output in past 24 hours
- Any diarrhea or emesis
- Any fever
- Any medications taken for nausea
- Report of shortness of breath, audible wheezing or tight feeling in chest
 - Duration?
- History of asthma, recurrent cough, COPD, congestive heart failure, heart disease?
- History of being hospitalized for respiratory problems?
 - Hospitalized in last year?
 - ICU admissions?
 - Intubation?
- Prescription home medications to help their breathing (i.e. "rescue inhalers," "bronchodilators," "asthma medications," etc.)?
 - Do they have their medications with them?
- If they have had respiratory problems in the past what was the trigger?

- If they have asthma do they use a peak flow meter at home and what are their normal values and those today?

Assessment

Assess the patient including obtaining vital signs with particular emphasis on signs of hydration including:

- Tachycardia
- Dry mucous membranes (lips, mouth and tongue)
- For children when they cry are tears present
- Alterations in mental status especially decreased activity
- Unable to say short phrases before running out of breath
- Increased anxiety/ restlessness
- Abnormal respiratory rate <10 or >18 breaths per minute (or abnormal for age in children)
- Coughing
- Wheezing either audible or on auscultation
- Diminishing to absent lung sounds on auscultation
- Retractions--using accessory muscles in breathing
- Grunting in a pediatric patient
- Pulse ox < 94% on room air

Indications for Hydration

The following signs of dehydration indicate a need for hydration therapy:

- Decreased urine output (no urine output for 12 hours in adults)
- Recurrent or persistent emesis, diarrhea
- HR > 100 or change in HR of 20 points or more (In children use table below)

Normal Pediatric Pulse Rate	
Infant	100-160
Toddler	90-150
Preschooler	80-140
School-age	70-120
Adolescent	60-100

Indications for Bronchodilator Therapy

Institute bronchodilator treatment in patient with known bronchospasm and respiratory distress or initiate a trial of bronchodilator therapy in any patient if any of the following are present;

- Wheezing even if this is their first episode
- Pulse ox < 94% RA despite supplemental oxygen up to 6 lpm
- Increased work of breathing (retractions) with RR >18(greater than normal for age in pediatric patient) despite supplemental oxygen up to 6 lpm

Management of Care

1. Assess patient's hydration and respiratory status
2. Determine if indications are present for hydration and/or bronchodilators
3. If indications are present for hydration:
 1. Give patient an oral antiemetic if history of emesis or emesis with initial oral rehydration attempt.
 - a. Ondansetron is the preferred agent
 - b. Phenothiazines should be avoided due to their interference with oral rehydration therapy secondary to increased sleepiness and the possibility for serious side effects
 2. Begin rehydration using an oral rehydration solution.
 - a. Initially provide small volume of liquid 30 ml for adults, 15 ml for children and 5 ml for infants every 5-10 minutes and increased gradually to target of 50-100 ml of oral rehydration solution/kg body weight over 2-4 hours.
 - b. The fluids used should be either a commercially available oral rehydration solution or one that contains the following components:
 - Carbohydrate 13.5 gm/L
 - Sodium 75 mmol/L
 - Potassium 20 mmol/L (only included if patient has urine output)
 - Chloride 65 mmol/L
 - Base 30 mmol/L
 - Osmolarity 245

3. For patients who have either failed oral rehydration therapy – or who have an alteration in mentation which would preclude oral rehydration – begin intravenous rehydration and then transition to oral rehydration
 - a. Initiate intravenous access
 - b. Administer 1 liter normal saline (20 ml/kg in infants in children) over 30 minutes. If patient has history of either renal disease or congestive heart failure discuss with Level III Provider before administering IV fluids.
 - c. If patient fails to improve repeat 1 liter normal saline (20 ml/kg in infants in children) over 30 minutes
 - d. In children an additional fluid bolus of 20 ml/kg over 30 minutes may be administered
 - e. Attempt a second trial of rehydration using an oral rehydration solution.
 - Initially provide small volume of liquid 30 ml for adults, 15 ml for children and 5 ml every 5-10 minutes and increase gradually to target of 50-100 ml of oral rehydration solution/kg body weight over 2-4 hours.
 - The oral rehydration solution should be composed with the following components:
 1. Carbohydrate 13.5 gm/L
 2. Sodium 75 mmol/L
 3. Potassium 20 mmol/L (only included if patient has urine output)
 4. Chloride 65 mmol/L
 5. Base 30 mmol/L
 6. Osmolarity 245
4. If patient has ongoing losses, administer additional 120-240 ml (infant 60-120 ml) oral rehydration solution for each additional episode of emesis or diarrhea
5. If patient tolerates PO, discontinue IVF but maintain saline lock and re-triage as described below.
4. If indications are present for bronchodilators:
 1. Allow patient to seek position of comfort
 2. Oxygen to keep sat >94% (see oxygen protocol)
 3. Initial treatment will be three treatments in the first hour of care and then an additional treatment 2 hours later
 4. Administer inhalational bronchodilator via one of the following methods:
 - Nebulizer (6-10 liter per minute flow oxygen if needed to maintain O2 saturation > 94%)
 - Dosing for Albuterol and Ipratropium Bromide:
 1. Initially provide a combination of Albuterol 2.5 mg and Ipratropium Bromide 500 mcg in 3ml Saline every 20 minutes for three treatments
 2. Repeat Albuterol - 2.5 mg in 3 ml saline taken by inhalation over 5-15 minutes in 2 hours.
 - To inhale the solution using a nebulizer, follow these steps;
 1. Remove one vial of combination of Albuterol 2.5 mg and Ipratropium Bromide 500 mcg solution from the foil pouch. Leave the rest of the vials in the pouch until you are ready to use them.
 2. Look at the liquid in the vial. It should be clear and colorless. Do not use the vial if the liquid is cloudy or discolored.
 3. Twist off the top of the vial and squeeze all of the liquid into the nebulizer reservoir.
 4. Connect the nebulizer reservoir to the mouthpiece or face mask.
 5. Connect the nebulizer to the air source if the patient has an oxygen saturation < 94% oxygen source at 6 lpm.
 6. Place the mouthpiece in your mouth or put on the face mask. Sit in an upright, comfortable position and turn on the compressor.

7. Breathe in calmly, deeply, and evenly for about 5-15 minutes until mist stops forming in the nebulizer chamber.
- Multiple Dose Inhaler MDI (reserved for patients previously prescribed MDI, discharge, educational needs or if personnel available to educate on MDI use)
 - Dosing for bronchospasms with MDI:
 - 4 inhalations (puffs) of Albuterol and 4 inhalations (puffs) of Ipratropium Bromide every 20 minutes for three treatments. Followed by:
 - 4 inhalations (puffs) of Albuterol in 2 hours
 - If patient unable to use MDI or HFA effectively then administer bronchodilator via a nebulizer.
 - To use the MDI, follow these steps:
 1. Remove the protective dust cap from the end of the mouthpiece. Check the mouthpiece for dirt or other objects.
 2. When using the inhaler for the first time, or if the inhaler has not been used in more than 14 days, you will need to prime it. To prime the inhaler, shake it well and then press down on the canister 4 times to release 4 sprays into the air, away from the face.
 3. Shake the inhaler well.
 4. Attach spacer device (if available)
 5. Breathe out as completely as possible through your mouth.
 6. Hold the canister with the mouthpiece on the bottom, facing you and the canister pointing upward. Place the open end of the mouthpiece into your mouth. Close your lips tightly around the mouthpiece.
 7. Breathe in slowly and deeply through the mouthpiece. At the same time, press down once on the container to spray the medication into your mouth.
 8. Try to hold your breath for 10 seconds, remove the inhaler, and breathe out slowly.
 9. Use 2 puffs and replace cap on inhaler.
5. Patient is to be re-triaged using triage protocol to determine disposition after Observation Area treatment has completed as either:
 - a. Home Care
 - b. CBCC Care
 - c. Hospital Care

Note: Completion of observation treatment is based on either or both of the following being met:

 - i. For patients receiving bronchodilators any of the following:
 1. Three bronchodilator treatments in the first hour, additional treatment at 2 hours and then a period of 2 hours after treatment (5 hours total)
 2. Development of respiratory distress prior to fourth treatment at 2 hours or completion of two-hour observation following fourth treatment
 3. Development of severe respiratory distress or respiratory failure
 - ii. For patients receiving hydration any of the following:
 1. Completion of PO or IV rehydration and tolerating PO hydration for 2 hours
 2. Failure after rehydration to tolerate PO

Trigger for Reassessment by Level II Provider

- Change in mental status
- Increased respirations
- Difficulty breathing
- Decreased pulse strength
- Failure to improve or worsening in condition with intravenous rehydration
- Presence of serious side effect
 - fast, pounding, or irregular heartbeat
 - chest pain
 - rash, hives, itching
 - swelling of the face, throat, tongue, lips, eyes, hands, feet, ankles, or lower legs
 - increased difficulty breathing
 - difficulty swallowing
 - hoarseness

Threshold for Consideration of Referral from CBCC to Hospital for Higher Level of Care

- Concern exists for other possible illnesses complicating the clinical course
- Signs of shock
- Signs of respiratory distress during rehydration
- Diminishing pulse ox values and unstable vital signs despite treatment with bronchodilators and supplemental oxygen therapy
- Pulse ox value < 94% despite use of bronchodilators and oxygen therapy

EQUIPMENT AND SUPPLIES

- Oral rehydration solutions
- Intravenous catheters
- Normal Saline for IV administration
- IV tubing with drip chambers that allow counting of drops to determine rate
- Alcohol preps
- Tourniquets
- Gloves
- Adhesive tape or preconfigured device to secure IV
- IV poles
- Oxygen Concentrators*
- Y adaptors (2 patients on one 5 LPM concentrator)
- Multitor (multi-patient oxygen manifold for 2-5 patients on one 10 LPM concentrator)
- Nebulizer masks
- Ambu bags
- Pulse oximeters and probes
- Oxygen cylinders and flow meters if concentrators not available
- Air source
- Connecting tubing
- Cylinder flow sheet to determine the amount of time per cylinder based on liter flow

* Concentrators do not require compressed gas or liquid oxygen. Oxygen concentrators require electricity. Backup generators and/or oxygen cylinders are required at the CBCC in the event of a power failure.

MEDICATIONS

1. Ondansteron
 - a. Tablet, Oral
Disintegrating Table and
Liquid Preparations
2. Intravenous Fluids
 - a. Normal Saline
 - b. D5 ½NS
 - c. D5 1/3NS
3. Albuterol
4. Combination Albuterol
and Ipratropium Bromide
5. Acetaminophen

Initial Assessment / Intake Protocol

Rationale

Patient after being triaged will be referred to the CBCC (CBCC) where s/he will need to have an initial intake and assessment to verify their appropriateness for the CBCC and guide their care.

Goal

There are three main goals of the initial assessment and intake. The goals are to:

- Confirm the patient is appropriate for the CBCC
- Assess the patient's existing medication and medical history and care needs while at the CBCC
- Establish baseline vitals and assessment for the patient.

Planning Assumptions

Planning assumptions regarding the initial assessment and intake at the CBCC during a pandemic influenza event include, but are not limited to:

1. Patient has already had triage assessment
2. All patients upon arrival at the CBCC will have a full assessment and intake
3. The initial assessment and intake will establish the initial care plan for the patient.
4. This initial assessment will also establish the normal vital sign ranges for this patient that will be used for further care and reassessment at the CBCC.
5. The initial assessment will also confirm appropriateness of patient for CBCC. After assessment patient may be transferred to hospital. Patient may also be discharged to home if patient has improved (only after 4-hour observation period)

Provider Level and Skill Mix

1. Level I Personnel
 - a. Assess vital signs
 - b. Provide oral fluids and oral medications
 - c. Monitoring of intravenous fluids
 - d. Administer nebulizer or assist with MDI

2. Level II Personnel

- a. Initial assessment and intake
- b. IV insertion and setting of fluid rates
- c. Changing of intravenous fluids bags
- d. Decision to administer medications at time of intake

History

Obtain complete health history, allergies, and current medication list.

Specifically address the following:

- Medication times of administration and duration of treatment
- Pandemic influenza symptoms
- Current treatment of influenza(if any)
- Nutritional requirements and any special consideration including food allergies
- Family and contact information
- Name and contact information for personal physician
- Name and contact information for patient's pharmacy

Assessment

Assess the patient including obtaining vital signs with particular emphasis on signs of influenza, respiratory distress and perfusion including:

- Tachypnea
- Increased work of breathing
- Cyanosis
- Pale appearance
- Tachycardia
- Decreased pulse strength
- Dry mucous membranes (lips, mouth and tongue)
- Alterations in mental status
- Weight

Also specifically assess for ability to perform activities of daily living and to self administer medications.

Management of Care

1. Upon arrival at the CBCC all patients will have an initial intake and assessment
2. The assessment and intake will be conducted by a Level II Provider
3. The initial assessment and intake should be documented on the CBCC Intake Assessment which is part of the CBCC patient record
4. The Level II provider will review the triage assessment
5. This initial assessment and intake will include the following:
 - a. Nutritional requirements and any special consideration including food allergies
 - b. Family and contact information
 - c. Name and contact information for personal physician
 - d. Name and contact information for patient's pharmacy
 - e. Chief Complaint
 - f. Medication listing including times of administration
 - g. Allergies
 - h. Past medical history
 - i. Vital signs
 - Establish range of normal for all vital signs for this patient and record (may use reference table for normal vital signs)
 - j. Physical exam
6. Determine CBCC Plan of Care and document on CBCC Patient Care Record
 - a. Establish nutritional plan
 - b. Determine and indicate on patient care record which CBCC protocols will be used for this patient's care
 - c. Establish and document patient's medication list and administration times (in keeping with CBCC medication administration schedule}

Trigger for Re-Triage/Consult with Medical Provider/Designee

If during the initial assessment and intake any of the following are discovered, reassessment by, or discussion with, a Level III Medical Provider is to be done:

- Patient's condition exceeds ability of CBCC
- Question regarding ability to administer patient's medication or question regarding discontinuing patient medication
- Patient does not appear to be able to maintain activities of daily of living and will need assistance beyond the standard care provided in CBCC

Threshold for Transfer Out of CBCC to Hospital for Higher Level of Care

- Patient's condition exceeds capability of CBCC
- Presence of respiratory failure or shock
- Inability to perform activities and daily living and no care provider with patient

Additional Medical Care Protocols for Reference

EQUIPMENT AND SUPPLIES

- Patient care records
- Stethoscope
- BP measuring device (sphygmomanometer or automatic, noninvasive BP measuring device)
- Scale
- Flashlight
- Tongue depressor
- Pulse oximeter
- Weight scale

Intake Assessment

PATIENT INFORMATION

Name:

Patient Tracking Number:

Date/Time of Intake Assessment:

HISTORY

Age:

Sex:

- | | |
|---|--|
| <input type="checkbox"/> Comorbid conditions: | <input type="checkbox"/> Immunocompromising condition |
| <input type="checkbox"/> Pregnancy | <input type="checkbox"/> Renal failure on dialysis |
| <input type="checkbox"/> Asthma on daily meds | <input type="checkbox"/> Cancer, on chemo or radiation therapy |
| <input type="checkbox"/> Chronic Lung Disease on O ₂ , meds or with Sx | <input type="checkbox"/> Severe anemia (Hgb < 10) |
| <input type="checkbox"/> Congenital Heart Dz – hemodynamically sig | <input type="checkbox"/> Hemoglobinopathy (sickle cell or thalassemia) |
| <input type="checkbox"/> Heart Failure | <input type="checkbox"/> Chronic neuro disorder affecting muscles of respiration |
| <input type="checkbox"/> HIV w/ CD4 <200 | <input type="checkbox"/> Other_____ |
| <input type="checkbox"/> Systemic steroids equiv Prednisone ≥ 15mg/day for 1≥ mos | |
| <input type="checkbox"/> Severe rheum or autoimmune disease | |

Name and Contact Information for PMD:

Name and Contact Information for Patient's Pharmacy:

MEDICATIONS (SHOULD BE BID IF POSSIBLE)

Medication: Dosage:	Frequency:	<input type="checkbox"/> Continue <input type="checkbox"/> Change <input type="checkbox"/> Discontinue	If change indicate below:
Medication: Dosage:	Frequency:	<input type="checkbox"/> Continue <input type="checkbox"/> Change <input type="checkbox"/> Discontinue	If change indicate below:
Medication: Dosage:	Frequency:	<input type="checkbox"/> Continue <input type="checkbox"/> Change <input type="checkbox"/> Discontinue	If change indicate below:
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Medication: Dosage:	Frequency:	<input type="checkbox"/> Continue <input type="checkbox"/> Change <input type="checkbox"/> Discontinue	If change indicate below:
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Medication: Dosage:	Frequency:	<input type="checkbox"/> Continue <input type="checkbox"/> Change <input type="checkbox"/> Discontinue	If change indicate below:
Medication: Dosage:	Frequency:	<input type="checkbox"/> Continue <input type="checkbox"/> Change <input type="checkbox"/> Discontinue	If change indicate below:

PHYSICAL EXAM

General Appearance:

Mental Status:

Pulse: Respiratory Rate: Pulse Oximetry: Blood Pressure: Wt:

HENT:

Lungs:

CV:

Abdomen:

Back:

Skin:

Ext:

OVERALL ASSESSMENT AND CONFIRMATION OF DISPOSITION

- d/c to home (after 6 hours of observation and treatment with either hydration or bronchodilator) Transfer to hospital Admit to CBCC

HEALTH CARE PROVIDER INFORMATION

Provider:

Signature:

General Patient Care Approach Protocol

Rationale

While there will be a selection of protocols to address specific issues, all patients will receive a general level of care. This general level of care will be presented as general standing orders.

Treatment Goal

The treatment goal of the protocol is to provide a standard set of minimum patient care orders for all patients admitted to the CBCC.

Planning Assumptions

1. Planning assumptions regarding general standing orders are, but are not limited to:
2. Patient's admitted to the CBCC will be of moderate illness with minimal comorbid conditions

Patient's admitted to the CAS will have certain general care requirements which cannot be met at home and thus requiring admission to the CBCC

Provider Level and Skill Mix

3. Level II Personnel
 - a. general standing orders

Management of Care

1. Admission
 - a. Admit to standard cot or bed
2. Vital Signs
 - a. As per reassessment protocol
3. Activity
 - a. Out of bed or cot as tolerated
 - b. Assist patient as needed
4. Nursing
 - a. Record q 12 hr shift whether patient has:
 - i. voided
 - ii. ambulated
 - iii. eaten
5. Diet
 - a. Regular diet
 - b. Special nutrition requirements

6. Maintenance Hydration

		Euvolemic	Mild Dehydration	Moderate to Severe Dehydration
Clinical Presentation		Moist mucous membranes Normal skin turgor Normal urine output	Dry mucous membranes Poor skin turgor Reduced urine output	Dry mucous membranes Poor skin turgor Reduced urine output SBP < 100
Adults and children weighing > 65 kg (140 lbs)	Able to drink fluids	Place 1 liter of water at the bedside and instruct patient to drink at least 8 oz every 2 – 3 hrs	Place 1 liter of oral rehydration solution (ORS) at bedside and instruct patient to drink at least 16 oz every 2 – 3 hrs	Give 1 liter NS bolus IV, then 2 nd liter over 3 hrs. Change to D5 ½ NS + 20 meq KCL/liter @ 150 cc/hr until patient appears clinically hydrated, then change to ORS p.o.
	Unable to drink fluids	D5 ½ NS + 20 Meq KCL/liter @ 100 cc/hr	Give 1 liter NS bolus IV, then 150 cc/hr until patient voids dilute urine. Maintain with D5 ½ NS + 20 meq KCL/liter @ 100 cc/hr until patient can take p.o.	Give 1 liter NS bolus IV, then 2 nd liter over 3 hrs. Change to D5 ½ NS + 20 meq KCL/liter at 150 cc/hr until patient appears clinically hydrated, then maintain at 100 cc/hr until patient can take p.o.
Children weighing 36 – 50 kg (79 – 111 lbs)	Able to drink fluids	Place 1 liter of water at the bedside and instruct patient to drink at least 6-8 oz every 2 – 3 hrs	Place 1 liter of ORS at bedside and instruct patient to drink at least 12-16 oz every 2 – 3 hrs	Give 750 cc NS bolus IV, then 2 nd 750 cc bolus over 3 hrs. Change to D5 ½ NS + 20 meq KCL/liter @ 125 cc/hr until patient appears clinically hydrated, then change to ORS p.o.
	Unable to drink fluids	D5 ½ NS + 20 Meq KCL/liter @ 85 cc/hr	Give 750 cc NS bolus IV, then 125 cc/hr until patient voids dilute urine. Maintain with D5 ½ NS + 20 meq KCL/liter @ 85 cc/hr until patient can take p.o.	Give 750 cc NS bolus IV, then 2 nd 750 cc bolus over 3 hrs. Change to D5 ½ NS + 20 meq KCL/liter at 125 cc/hr until patient appears clinically hydrated, then maintain at 85 cc/hr until patient can take p.o.
Children 25 – 35 kg (55 – 78 lbs)	Able to drink fluids	Place 1 liter of water at the bedside and instruct patient to drink at least 5-7 oz every 2 – 3 hrs	Place 1 liter of ORS at bedside and instruct patient to drink at least 10-14 oz every 2 – 3 hrs	Give 500 cc NS bolus IV, then 2 nd 500 cc bolus over 3 hrs. Change to D5 ½ NS + 20 meq KCL/liter @ 100 cc/hr until patient appears clinically hydrated, then change to ORS p.o.
	Unable to drink fluids	D5 ½ NS + 20 Meq KCL/liter @ 70 cc/hr	Give 500 NS bolus IV, then 105 cc/hr until patient voids dilute urine. Maintain with D5 ½ NS + 20 meq KCL/liter @ 70 cc/hr until patient can take p.o.	Give 500 cc NS bolus IV, then 2 nd 500 cc bolus over 3 hrs. Change to D5 ½ NS + 20 meq KCL/liter at 100 cc/hr until patient appears clinically hydrated, then maintain at 70 cc/hr until patient can take p.o.

Children 10-20 KG	Able to drink fluids	Place 1/2 liter of water (age appropriate milk or juice) at the bedside and instruct patient to drink at least 5-7 oz every 2 – 3 hrs	Place 1/2 liter of ORS at bedside and instruct patient to drink at least 3-5 oz every 2 – 3 hrs	Give 250 cc NS bolus IV, then 2 nd 250 cc bolus over 1 hrs. Change to D5 ½ NS + 20 meq KCL/liter @ 75 cc/hr until patient appears clinically hydrated, then change to ORS p.o.
	Unable to drink fluids	D5 ½ NS + 20 Meq KCL/liter @ 50 cc/hr	Give 500 NS bolus IV, then 75 cc/hr until patient voids dilute urine. Maintain with D5 ½ NS + 20 meq KCL/liter @ 50 cc/hr until patient can take p.o	Give 250 cc NS bolus IV, then 2 nd 250 cc bolus over 1 hrs. Change to D5 ½ NS + 20 meq KCL/liter at 75 cc/hr until patient appears clinically hydrated, then maintain at 50 cc/hr until patient can take p.o.
Children < 10 KG	Able to drink fluids	Patient specific	Patient specific	Patient specific
	Unable to drink fluids	Patient specific	Patient specific	Patient specific

7. Oxygenation/Respiratory Care

- a. As per oxygen protocol

8. Medications

- a. Fever

- i. As per antipyretic protocol

- b. Antihistamine

- i. Diphenhydramine 25 mg orally every 6 hours prn runny nose /sleep

- c. Antiemetic

- i. Ondansetron

- d. Antiviral

- i. As per antiviral protocol

Patient Periodic Reassessment Protocol

Rationale

The clinical status and stability of patients admitted to the CBCC will vary over time.

- Some will improve to the point that they can be discharged to home.
- Some will improve allowing reduction in oxygen requirements.

Some will worsen and require the addition of other treatments that are available at the CBCC, example – bronchodilator treatment.

Some will worsen requiring transfer to a hospital if a bed is available.

Some will worsen and become expectant in prognosis

Procedures must be in place to assist relatively unskilled personnel to provide regular screening reassessments. As a corollary, protocols should be in place to notify the next higher skilled provider or caregiver for outlier findings.

Goals

- Recognition of clinical improvement towards the goal of discharging patients, opening up beds and reducing oxygen usage.
- Recognition of clinical deterioration with the goal of commencing more intensive therapy to preclude the need to transport patients to either hospitals or expectant care.
- Efficient use of resources.
- Recognition of the need to transfer patients to hospitals or expectant care as needed.
- Providing comfort to patients who are debilitated and who cannot perform activities of daily living.

Planning Assumptions

Planning assumptions regarding periodic reassessment at the CBCC during a pandemic influenza event include, but are not limited to:

- This periodic assessment protocol establishes the minimum frequency and level of reassessment. Other protocols may dictate either more frequent or additional reassessments

- Just-in-time training to volunteers to assess comfort, pulse, pulse oximetry, respiratory rate, temperature, and mental orientation.
- Available pulse oximeters, thermometers, and sphygmomanometers
- Skilled nurses available to do a more in depth reassessment when required.
- Clinicians available for “diagnostic level of reassessment”

Providers and Skill Mix

Nonmedical Provider – Comfort and nonmedical assessment

Level I Provider - simple assistance with ADL and Screening clinical assessment

Level II Provider - Advanced clinical reassessment

Level III Provider - Diagnostic clinical reassessment- optional to be physically present but available for phone consultation

Reassessment activities: four levels of reassessment:

- comfort level
- screening clinical
- advanced clinical
- diagnostic clinical and consultation

Reassessment Protocols

A. Comfort level reassessment

1. Provider- Nonmedical Provider
2. Frequency – every 2 hours while awake while nonmedical provider is performing other tasks
3. Protocol
 - a. Is there anything I can do for you?
 - b. How do you feel –better, worse, the same, if worse, how and notify nurse.

B. Screening Clinical reassessment

1. Provider- Level I Provider
2. Frequency – Every six hours for first 24 hours and then every 12 hours

3. Protocol:

- a. Ask the following questions
 - 1. How do you feel better, worse, the same? If worse, how and notify Level II Provider.
 - 2. What's your name, where are you, why are you here, who is the president, what is the first thing that I asked you? If any new abnormality, notify Level II Provider.
- b. Check pulse, respiratory rate, pulse oximeter, temperature
 - 1. If values meet criteria for notification of Level II Provider per CBCC Care orders, immediately notify Level II Provider
- c. Assess the following to determine if adequate or not. If inadequate, notify Level II Provider
 - 1. Hydration
 - 2. Nutrition
- d. Ask the following last question
 - 1. Is there anything else that I can do for you?

C. Advanced Clinical reassessment

- 1. Skill mix-Level II Provider
- 2. Frequency:
 - a. Every 24 hours
 - b. On request of screening or comfort care reassessment provider.

2. Protocol:

- a. Assessment is done by provider although vital signs may have been initially determined by lower level provider
- b. Blood pressure every 24 hours in addition to screening reassessment parameters by volunteer. If drop of more than 15 mm hg either systolic or diastolic, notify next higher level of provider.

- c. Skin color assessment every 24 hours in addition to parameters from screening reassessment. If new color changes to white, grey or blue notify higher level of provider for instructions.
- d. Listen to lungs for wheezing or crackles
- e. Adjust CBCC Care Orders and Vital Signs notification levels

D. Diagnostic Clinical

- 1. Skill mix – Level III
- 2. Frequency - On request of Level II Provider
- 3. Protocol:
 - a. Either assess patient or discuss via telephone with Level II provider their findings
 - b. If required order change to CBCC Care Orders and Vital Signs notification levels
 - c. Determine if transfer to hospital, change to palliative care or discharge is indicated

EQUIPMENT
<ul style="list-style-type: none">• Pulse oximeter,• Sphygmomanometer• Stethoscope• Thermometer• Flashlight• Tongue depressor• N95 Masks• Weight Scale

Additional Medical Care Protocols for Reference

- Antipyretic
- Oxygen
- Bronchodilator
- Fluids
- Analgesic

Daily Patient Assessment Flow Sheet

Patient's Name: _____ Age: _____ Patient's Tracking Number: _____

		CBC day											
		Date	/	/	/	/	/	/	/	/	/	/	/
		Time											
Vitals (insert acceptable range in 1 st column)	Temp												
	BP												
	HR												
	RR												
	O ₂ sat												
Mental Status													
Resp	O ₂ (l/min)												
	Chest exam												
Hydration Output	Oral (tolerating)												
	IVF type/rate												
	Voiding (yes or no)												
Nutrition	Adequate												
	Not adequate												
Assessment	Improved												
	Stable												
	Worsened												
Disposition	Stay												
	d/c home												
	Trans to hosp.												
Comments													
Provider initials													

Discharge and Transfer Protocol/Criteria

Rationale

When patients have been accepted for care at the CBCC, decisions will have to be made when they may be either discharged to home or transferred to a higher level of care. It is recognized that the CBCC will have only limited care abilities so patients whose care needs exceed the abilities of the CBCC will require transfer. In some case a transfer location may not be available and the incident commander will need to determine the best approach to their care. It is also recognized that in a time of pandemic influenza even the CBCC resources are limited. As soon as possible patients should be discharged to care at home.

Goal

The goal of discharge from a CBCC is to:

- Ensure patients get the appropriate level of care in the appropriate setting
- Be able to identify patients best suited for palliative care
- Identify clinical changes requiring intervention or a change in the plan of care

Planning Assumptions

Planning assumptions regarding the discharge of patients from a CBCC during a pandemic influenza event include, but are not limited to:

- Traditional discharge criteria will not apply
- As soon as patients are able to be cared for at home they should be discharged from the CBCC to home care even if the illness has not fully resolved
- Patients who worsen in the CBCC should be transferred to a higher level of care should resources permit.
- In addition patients who arrive at the triage point, may also meet criteria for transfer to higher level of care upon arrival at triage. As such they would go directly to higher level of care and not CBCC.
- Patient who can be cared for at home should remain at home

- Patients requiring mechanical ventilation should be referred to hospitals
- Patient with unstable preexisting conditions should be referred to hospitals
- Patients may leave against medical advice unless a quarantine order is in effect for the patient

Provider Level and Skill Mix

- Discharge to home requires a minimal skill set but discharge to a higher level of care may require a more advanced skill set.
 - Level II – Discharge to home
 - Level II and confirmed by Level III – referral to a higher level of care

Discharge History

The history will be that which was obtained upon initial history at the CBCC combined with the care provided and changes in condition. This includes symptoms that occurred while at the CBCC.

Assessment

The discharge assessment should include: vital signs; pulse oximetry; mental status; breath sounds, and work of breathing with particular attention to following additional items:

- Unable to say short phrases before running out of breath
- Abnormal respiratory rate <10 or >18 breaths per minute (or abnormal for age, in children)
- Wheezing – either audible or on auscultation
- Retractions – using accessory muscles in breathing
- Grunting in a pediatric patient
- Pulse ox < 94% on room air
- Signs of sepsis or hypovolemia
- Ability to tolerate oral fluids

Criteria to Discharge or Refer to Hospital

Transfer to Care at Home from the CBCC

A patient may be discharged from the CBCC to home care if all of the following criteria are met:

- Absence of respiratory distress
 - Normal respiratory rate for age
 - No increased work of breathing
 - No retractions
 - No grunting in children
 - No wheezing
 - Except in patients with known bronchospasm who have the ability for nebulization or MDI at home (at the discretion of the Level III Provider)
- Absence of oxygen requirement for a minimum of 6 hours
- Ability to tolerate oral liquids and medications for a minimum of 6 hours
- No signs of shock
- Baseline mental status

Procedure for Discharge to Home

1. Level II provider assesses patient as meeting criteria for discharge to home
2. Confirmation of either ability to get home or mechanism for transport to home
3. Home care instructions provided
4. If applicable, patient's own medications returned to patient
5. Patient provided sufficient medication to complete antiviral or antibiotic course of treatment and analgesic medications if still required.

Criteria for consideration of referral from the CBCC to a higher level of care:

- Diminishing pulse ox values and unstable vital signs despite treatment with bronchodilators and supplemental oxygen therapy
- Pulse ox value < 92% despite use of bronchodilators and maximal oxygen therapy for CBCC (6 lpm)

- History of CHF with pulse ox < 94% on RA
- History of unstable cardiac disease with pulse ox < 94 % on RA
- Meet transfer criteria from any CBCC Protocol

Procedure for transfer to a higher level of care:

1. Level II Provider determines that patient meets criteria for referral to a higher level of care. If this occurs at triage point there may be additional assessments done per the triage point protocol to determine specific higher level of care needed and best location.
2. Level II Provider notifies Level III Provider of potential need for patient referral to higher level of care.
3. The Level III Provider either assesses patient or discusses via telephone patient with Level II Provider.
4. If the Level III Provider is in agreement with the Level II Provider he notifies the CBCC director of the need for referral to a higher level of care.
5. CBCC director communicates through Incident Command System need for patient transfer.

Clinical Pearls /References

Additional Medical Care Protocols for Reference

US Centers for Disease Control and Prevention (CDC). *FluSurge 2.0*. Atlanta: CDC.

www.cdc.gov/flu/flusurge.htm.

<http://www.ahrq.gov/research/altstand>

<http://hospitalsurgemodel.ahrq.gov/>

EQUIPMENT

- Thermometers
- Stethoscopes
- Blood pressure cuffs
- Pulse oximeters
- Masks
- Gloves
- Gowns

Discharge Form

Patient's Name:

Age:

Patient Tracking Number:

Date: / /

Patient discharged to home

- Home care instructions provided

- PMD

Notified PMD Name

Date and Time:

Unavailable

- Medications dispensed:

•

•

•

•

- Patient's understanding documented

I understand the home care instructions provided to me.

Patient's Signature:

Date:

Patient transferred to hospital (Name of hospital): _____

- Copy of chart attached

Patient left against medical advice

- Verbal/written instructions given

Patient deceased

- Body transferred to morgue

Infection Control Protocol

Rationale

Infection control principles are important in any health care setting to reduce the opportunity for transmission of infectious agents.

Goal

The primary goal is to prevent the transmission of infectious agents thereby reducing the opportunity for infections to occur and protecting workers from exposure

Planning Assumptions

1. All patients and those that may accompany patients are presumed to be infected with influenza.
2. All blood, body fluid, mucous membranes and non-intact skin are always presumed to be infectious.
3. The CBCC has a written Exposure Control Plan for Bloodborne Pathogens.
4. Infection control practices may change as information becomes available. As such this protocol represents a starting point but will need to be modified based on ongoing NYS DOH guidelines.
5. If available, infection control may include vaccination for caregivers and patient contacts

Provider Level and Skill Mix

All levels of personnel, volunteers and those accompanying patients (as well as patients themselves) are responsible for following the basic infection control principles as they are able. All personnel will have a basic understanding of their infection control responsibilities as part of any orientation or training.

Management

The following represent the minimum protection to be employed (unless altered by recommendations during an event from NYS DOH):

1. Every level of personnel who has patient contact is to wear a surgical/procedure mask and every level of personnel who is

involved in aerosol-generating procedures will use an N95 (or equivalent) mask. Instructions for fit testing follow.

2. Every patient, and anyone accompanying the patient, will be provided a surgical/procedure mask and educated on the need for continually wearing masks and adhering to respiratory etiquette. Refusal to accept the mask and this requirement is evidence of nonacceptance with procedures and will preclude acceptance to the CBCC.
3. If the patient is unable to wear a mask, basic instruction to cover his/her mouth when coughing or sneezing will be provided.
 - a. Instruction signs for respiratory etiquette should be placed throughout the CBCC, including the primary assessment (triage) area.
4. Hand hygiene is the most important thing to do to prevent the spread of infections. Hand hygiene preferably will be with soap and water -- and in its absence the use of a waterless hand gel or foam.
 - a. Hand hygiene should be performed:
 - Before and after physical contact with the patient (even if gloves were worn).
 - After handling soiled or contaminated equipment or items.
 - Before and after eating
 - After using the toilet or cleaning up a child who has gone to the bathroom
 - After handling garbage.
 - Immediately after contact with blood or any bodily fluids.
 - Before and after touching wounds (even if gloves were worn).
 - After removing gloves.
 - After coughing, sneezing or blowing the nose.
 - b. Hands should be washed with soap and water whenever they come in contact with blood or body fluid of any kind. When washing hands with soap and water; wet hands, apply soap to hands and

- vigorously rub hands together, covering all surfaces for 20 seconds. Rinse hands with water and dry thoroughly with a disposable towel. Turn off the faucets with a paper towel, dispose of used towel.
- c. A waterless hand hygiene product can be used as a substitute when soap and water is unavailable between patients, EXCEPT when visible soiling of the hands is likely. To use the waterless product, place a small amount onto the palm of one hand, rub hands together, covering all surfaces of hands and fingers until dry. It is not necessary to rinse hands. Always follow the manufacturer's recommendation for the volume of product needed.
 - d. When handling or preparing food, follow appropriate hand hygiene for food handling, which differs from patient care hand hygiene guidelines.
5. Keep yourself and your clothing clean. If clothing becomes soiled, discard soiled clothing in an appropriate linen hamper and put on clean clothes.
 6. Always follow STANDARD PRECAUTIONS. This means that you should provide a barrier every time you encounter blood or body fluid, open areas on the skin, non-intact skin, rashes or items contaminated with blood or body fluid. That barrier is usually gloves. Wear gloves, remove them, and wash your hands. If it is possible that your clothing will be soiled or contaminated, wear a long-sleeved, cover gown. If it is possible that your face will be exposed to splashes, particularly eyes and mouth, wear face protection.
 7. Eye protection may be needed based on NYS DOH recommendations.
 8. Practice Respiratory Etiquette. Whenever someone is coughing or sneezing they should cover their nose and mouth, either with a tissue or by coughing or sneezing into their upper sleeve. Dispose of used tissue and wash hands.
 9. Keep clean and soiled items separate. Dispose of trash promptly. Wipe up spills promptly (see the Exposure Control plan for more detail on cleaning up blood or body fluid spills)
 10. All work surfaces should be cleaned and disinfected. Proper cleaning and disinfection of equipment must be followed. Equipment should be cleaned and disinfected according to manufacturer's instructions. All disinfectants should be hospital-grade and either tuberculocidal or effective against HIV and hepatitis. This information is generally displayed on the product label. If this type of disinfectant is not available, then one part bleach to 10 parts water solution (i.e. one quart of bleach and 10 quarts of water) can be mixed and placed into an appropriate labeled bottle and discarded after 24 hours. If bleach is used, allow it to air dry. After any cleaning, hands should be washed.
 11. All linen should be laundered whenever soiled with blood or body fluids. Soiled linen should be placed in fluid-resistant bags and placed in the appropriate location for soiled linen. All soiled linen should be treated like infections and handled with gloves. Wash hands after removing gloves. Normal, commercial-quality laundry facilities should be effective in eliminating disease transmission.
 12. Hand washing for food preparation is different than patient care and should follow accepted standards.

EQUIPMENT

- N95 masks
- Surgical/procedural masks
- Goggle
- Splash protection for face, mouth and eyes
- Isolation gowns (providing droplet protection but fluid shield is not required)
- Gloves, nonsterile, preferably not latex
- Written instructions for putting on a mask and for just in-time or self-fit testing
- Waterless hand hygiene product (minimum of 70% isopropyl alcohol)
- Soap and water, paper towels
- Signs for hand hygiene
- Signs for respiratory etiquette
- Tissue
- Bleach
- Trash bags (regular and red bag)
- Equipment for N95 Fit Test

Antibiotic/Antiviral Protocol

Rationale

The care of patients with pandemic influenza will, at a minimum, include antiviral therapy. Some patients may require antibiotics to treat secondary infections. This protocol is based on the agents available and the best available data on the likely susceptibility of influenza and secondary infections from influenza. As such, the agents may be altered during an actual pandemic.

Treatment Goal

Treat the primary agent, influenza, in all symptomatic patients. Limit antibiotic use to patients with specific indications of secondary infection; with an escalation in antibiotic choice only in patients with indications of failure of the initial antibiotic.

Planning Assumptions

Planning assumptions regarding antibiotics and antivirals during a pandemic influenza event include, but are not limited to:

1. The effectiveness of antivirals against a new pandemic influenza virus cannot be predicted. As such initial treatment may involve two agents until susceptibility to the agents is known.
2. Pooled analyses of clinical trials of neuraminidase inhibitors administered to outpatients with seasonal influenza suggest that early treatment may reduce the risk of hospitalization by ~50%. There are no data on the effectiveness of neuraminidase inhibitors in preventing either serious morbidity (e.g., requirement for intensive care) or mortality.
3. Neuraminidase inhibitors are preferred because the majority of avian influenza A(H5N1) viruses currently affecting humans are resistant to amantadine and rimantadine, and resistance to these drugs typically develops rapidly when they are used for treatment of influenza.
4. Because the neuraminidase inhibitors have different binding sites for the enzyme, cross-resistance between zanamivir- and oseltamivir-resistant viruses is variable.

5. Most influenza A(H5N1) viruses currently in circulation in southeast Asia and the Novel H1N1 strain are resistant to the M2 ion channel inhibitors (amantadine and rimantadine), and strains that may evolve from these viruses may become resistant to this class of antivirals.
6. Oseltamivir is available as an oral suspension for use in all children and Zanamivir is available as an inhalation and can be used for children 5 years of age and older. For both medications, dosages have been established.
7. CDC predictions are that 10% of patients will develop a secondary bacterial pneumonia.
8. The use of antibiotics is targeted at patients who have influenza and who have received initial antiviral treatment and have signs and symptoms consistent with either secondary bacterial infection and/or a concurrent community-acquired pneumonia.
9. The antibiotics chosen for first line treatment are targeted to both treat staphylococcus aureus and community-acquired pneumonia. The second line antibiotics chosen should be those which will treat resistant staphylococcal infections.

Skill Mix Activation and Monitoring of Antibiotic/Antiviral Protocol

Level I Personnel—administration of oral medications

Level II Personnel –IV insertion, reassessment, determination of need for additional antibiotics, or a change in antibiotics, assessment of reaction to medications

Etiology/Causes

Influenza infections may be due to:

- Interpandemic (i.e., 'normal') seasonal strains of influenza
- Novel strains of influenza that do not appear to be easily transmissible but could be precursors to human pandemic strains (e.g., avian influenza A [H5N1] viruses)

- Novel strains of influenza that demonstrate person-to-person transmission and therefore have pandemic potential (e.g., a new human pandemic strain)

Based on available data, secondary infections will likely be due to:

- Community-acquired flora
 - Streptococcus pneumonia
 - Staphylococcus aureus
 - Nontypeable H. Influenzae
 - Group A streptococcus
 - Mycoplasma
- Resistant organisms
 - Community-acquired resistant staphylococcus aureus
 - Resistant streptococcus pneumonia

History

Obtain health history, allergies, and current medication list. With regard to issues of antiviral/antibiotics, specifically address the following:

- Fever including temperature maximum and duration
- Cough
- Sore throat
- Constitutional symptoms
- Difficulty breathing

Assessment

Assess the patient including obtaining vital signs with particular emphasis on signs of influenza, respiratory distress and perfusion including:

- Tachypnea
- Increased work of breathing
- Cyanosis
- Pale appearance
- Tachycardia
- Decreased pulse strength
- Dry mucous membranes (lips, mouth and tongue)
- Alterations in mental status, especially decreased activity

Indications for Antiviral Therapy

Both of the following must be present to indicate a need for antiviral therapy (unless changed during event by NYS DOH):

- Temperature greater than 100° F
- Cough, dyspnea and/or sore throat

Indications for Antibiotic Therapy

- Initial Antibiotics
 - New fever after defervescence
 - Develop new oxygen requirement or respiratory distress - or they get better and these reoccur
 - Increased oxygen requirement
- Secondary antibiotics (added to primary antibiotic)
 - Same as above after 24 hours
 - Continued fever after 24 hours on antibiotics
 - Vital signs indicative of sepsis

Management of Care

Administer Antivirals based on the following dosage guideline

Based on Novel influenza A (H1N1) antiviral medication dosing recommendations for adults and children ≥ 12 months (table from Infectious Disease Society of America guidelines for seasonal influenza)

Agent, group		Treatment (5 days)	Chemoprophylaxis (10 days)
Oseltamivir			
Adults		75 mg capsule twice per day	75 mg capsule once per day
Children (age 12 months or older*) by weight	≤ 15 kg	60 mg per day divided into 2 doses	30 mg once per day
	15-23 kg	90 mg per day divided into 2 doses	45 mg once per day
	24-40 kg	120 mg per day divided into 2 doses	60 mg once per day
	>40 kg	150 mg per day divided into 2 doses	75 mg once per day
Zanamivir			
Adults		Two 5-mg inhalations (10 mg total) twice per day	Two 5-mg inhalations (10 mg total) once per day
Children		Two 5-mg inhalations (10 mg total) twice per day (age, 7 years or older)	Two 5-mg inhalations (10 mg total) once per day (age, 5 years or older)

Based on Novel influenza A (H1N1) Antiviral medication dosing recommendations for children <12 months

Agent, group		Treatment (5 days)	Chemoprophylaxis (10 days)
Oseltamivir			
Children (age <12 months)	<3 months	12 mg twice daily	Not recommended unless situation judged critical due to limited data on use in this age group
	3-5 months	20 mg twice daily	20 mg once daily
	6-11 months	25 mg twice daily	25 mg once daily

Note: Oseltamivir use for children < 12 months old was recently approved by the U.S. Food and Drug Administration (FDA) under an Emergency Use Authorization (EUA) and dosing for these children is age-based. Health care providers should be aware of the lack of data on safety and dosing when considering oseltamivir use in a seriously ill young infant with confirmed novel influenza A (H1N1) or who has been exposed to a confirmed case of Novel influenza A (H1N1), and carefully monitor infants for adverse events when oseltamivir is used. Specific conditions may be attached for medications used in the setting of an Emergency Use Authorization (EUA)

Administer Antibiotics based on the following guideline

	Possible choices	Allergic history
Initial Antibiotic	Cefuroxime	Advanced Macrolide or Respiratory Quinolone (Depending on local availability)
Secondary Antibiotic (added to initial antibiotic)	Doxycycline	Sulfamethoxazole and Trimethoprim

Note: if patient unable to tolerate PO antibiotics, may administer intravenous antibiotics if resources permit. For presumed CaMRSA (Community-Acquired Methicillin resistance). Note that parenteral Vancomycin is the drug of choice and use of these other antibiotics in this instance is of unproven efficacy.

Trigger for Reassessment by Level II Provider

- After first dose of antibiotics if:
 - Patient complains of signs of an allergic reaction
 - First dose of intravenous antibiotic
- Signs of allergic reaction including any of the following
 - Rash, nausea, emesis, tachypnea, pallor, flushing, convulsions, itching, wheezing
 - Low blood pressure, new fast, slow or weak pulse
- Failure to improve or worsening in condition with secondary antibiotics
- Tachycardia
- Tachypnea or increased work of breathing
- Decreased pulse strength
- Change in mental status

Criteria to Discontinue Antibiotics

- Allergic reaction

Threshold for Transfer Out of CBCC to Hospital for Higher Level of Care

- Signs of sepsis
- Signs of respiratory failure
- Anaphylaxis
- Persistent fever despite 48-72 hours of antibiotic administration

EQUIPMENT AND SUPPLIES

- Oral rehydration solutions
- Intravenous catheters
- Normal Saline for IV administration
- IV tubing
- Alcohol preps
- Tourniquets
- Gloves
- Adhesive tape or preconfigured device to secure IV
- IV poles

MEDICATIONS

- Cefuroxime
- Doxycycline or Sulfamethoxazole and Trimethoprim
- Advanced macrolide or respiratory quinolone

Antipyretic Protocol

Rationale

- It is highly likely that patients who are infected with influenza will develop fever.
- Patients with fever should be appropriately medicated with an antipyretic.

Goals

- Recognition of fever
- Treatment of fever with an antipyretic

Planning Assumptions

- Temperatures will be otic
- Antipyretics are over-the-counter medications
- The antipyretic with the least contraindications is acetaminophen
- The only antipyretic will be acetaminophen
- In the setting of fever, the only absolute contraindication to acetaminophen would be a known allergy

Provider and Skill Mix

- Level I Personnel – Determination of temperature and administration of antipyretic

Etiology/Causes

Fever is caused by either inflammation or the body's response to infection. In the setting of pandemic influenza, this would be the most likely cause of fever.

History

Obtain health history, allergies, and current medication list. Specifically ask if the patient has an allergy to acetaminophen and the last time acetaminophen was given.

Assessment

Assess the patient including obtaining vital signs with particular emphasis on the temperature.

Indications for Antipyretic

An antipyretic is indicated for fever > 100.4 f (Otic)

Management of Care

For patient with fever:

1. Administer Acetaminophen by mouth if it has not been given in the past 4 hours
 - a. For adults give 650mg
 - b. For pediatrics use the following table (may substitute suppository at same dosage if not tolerating PO):

General Principle: 10-15 mg/kg/dose (1 kg = 2.2 lbs)

Weight	Drops	Elixir	Tablets
	80 mg/0.8 mg	160 mg/5 ml	325 mg
6-11 lbs	0.4 ml	-	-
12-17 lbs	0.8 ml	2.5 ml	-
18-24 lbs	1.2 ml	4	-
25-31 lbs	1.6 ml	5	-
32-47 lbs	-	7.5	-
48-59 lbs	-	10	1
60-71 lbs	-	12.5	1
72-95 lbs	-	15	1 ½
>96 lbs	-	-	2

Trigger for Reassessment by Level II Provider

- Change in mental status
- Increased respirations
- Difficulty breathing
- Decreased pulse strength
- Failure to resolve fever with acetaminophen

Criteria to Re-administer Acetaminophen

- Patient has fever of > 100.4 f.
And
- Patient has not received acetaminophen in the past 4 hours

Threshold for Referral from CBCC to Hospital for Higher Level of Care

- Signs of septic shock
- Signs of respiratory Failure

EQUIPMENT AND SUPPLIES

- Otic Thermometer
- While otic is preferred alternative may be used but mercury thermometers should never be used
- Measuring device
- Milliliter based both cup and syringe for child and infant administration

MEDICATIONS

- Acetaminophen
- Tablet, liquid and suppository preparations

Nutrition Protocol

Rationale

The ability to provide nutrition services at the CBCCs is an important component of managing care during a pandemic.

Goal

The goal of the protocol is to provide adequate oral nutrition services to the patients seen at CBCC during an emergency event.

Planning Assumptions

Planning assumptions regarding nutrition services during a pandemic influenza event include, but are not limited to:

1. Patients will be admitted to the CBCC for brief time periods of 1-7 days
2. Varied populations will seek care: elderly, children, special needs, special nutritional needs/dietary restrictions
3. The condition of patients with chronic illnesses may be exacerbated if nutrition needs are not met
4. CBCC will provide oral nutrition as the primary route of nutrition.
5. Age-appropriate oral nutrition will be provided
6. Ingredients of all food will be identified but no specific allergic needs will be provided
7. Patients who require forms of nutrition other than oral:
 - a. Will bring the supplies needed with them
 - b. Will need to bring a caregiver to administer this type of nutrition

Skill Mix

Nonmedical Provider –will provide the meals. Responsible for food handling, safety and preparation.

Level II Provider – determine alteration in meal plan including food-drug interactions.

History

- Health history, allergies, and current medication list will be utilized to determine if there are special nutritional needs

Trigger for Reassessment by Level II Provider

- Allergic reaction
- Patients present with non-oral enteral feeding needs
- Patients with dysphagia (new onset or existing)
- Patients with medically prescribed diets

Management of Adult Nutrition Needs

Adult patients will receive the general “box meal.” The box meal contains food appropriate for most adult patients including: diabetics, cardiac patients, older adults. The calorie target is 1800-2200

Breakfast Content:

- Dry cereal
- Milk
- Fruit juice

Lunch Content:

- Turkey/beef sandwich
- Milk
- Cookie

Dinner Content:

- Turkey/beef sandwich
- Milk
- Fruit

Food Safety/Preparation

Providing for food safety is an important operational component of the CBCC. Hand hygiene must be followed at all times to prevent the spread of illness. Food safety and preparation will be under the supervision of the county sanitarian.

Storage

- Temperature control and monitoring of refrigerator/freezer temperatures
- Acceptable refrigerator temperature range <41 degrees
- Acceptable freezer temperature range 0 -10 degrees or <
- Check expiration dates
- Discard food in damaged containers

Preparation

- Hand hygiene at all times
- Cleaning of food preparation surfaces with approved products including bleach-based solution
- Washing of fruits and vegetables with water

Service/Timing of Meals

- Consider patients on medications that include coordination with ingestion of food
- No more than 14 hours without food from night to morning

Control of Food Receipt

- Donated foods only from approved sources (e.g., vendors, markets)
- Assign nonmedical personnel to accept and store foods received

Clinical Pearls

- "If in doubt, throw it out"
- "2-hour rule" regarding room temperature maintenance. Food left out for 2 hours or more should be discarded

EQUIPMENT/SUPPLIES

- Refrigerator
- Thermometer for refrigerator
- Temperature log
- Stoves
- Ovens
- Blender
- Coffee maker
- Hot water dispenser for tea
- Disposable tableware
- Food (as noted in menu items)
- Water
- Infant formula/bottles/nipples
- Handi-wipes
- ADA Nutrition Manual
- NYSDOH Pediatric and Obstetrical Tool Kit (Nutrition Section)

Pediatric Nutrition Needs Protocol

Rationale

To provide adequate nutrition for children who are admitted as patients to the CBCC. The pediatric section provides nutritional guidelines for CBCCs that do not typically provide pediatric inpatient services.

Children with special needs will be referred to the hospital.

The recommendations in this section include: pediatric dietary recommendations for healthy children and sample disaster menus for children including those who have special dietary needs. The menus focus on foods that require little to no preparation and are both easy and inexpensive to store.

Section Contents

- General Guidelines
- Table of Pediatric Dietary Recommendations
 - Healthy Child
 - Special Needs Child
 - Children with Diabetes
- Sample Pediatric Disaster Menu
 - Sample diet for pediatric patients listing foods that require a minimal amount of preparation or power supply to maintain food temperatures

General Guidelines

The hospital Nutrition Services is responsible for the dietary needs of pediatric patients in a disaster.

The nutritional supplies recommended for healthy children are listed in Table 2.1 Pediatric Dietary Recommendations found on the following pages.

TABLE OF PEDIATRIC DIETARY RECOMMENDATIONS

	0-6 months	6 months to 1 year	1 to 2 years	2 years and above
Healthy Children	<p>These children are breast-fed or formula-fed by bottle only.</p> <p>Comments: Some breast-fed children may not immediately take bottle-feeding. Continue to feed; eventually the child will feed from the bottle.</p> <p>Recommendation: Ready-to-feed formula is preferred since it is immediately ready for use and requires no refrigeration or preparation. However, powdered baby formula may be used as well. Powdered formula will have a longer shelf life.</p>	<p>6-9 months – baby cereal, jarred baby food or mashed table food is appropriate – along with formula or breast milk</p> <p>9-12 months – soft, bite-sized pieces of foods, i.e., vegetables, mashed potatoes, and meats – along with formula or breast milk</p>	<p>This age group eats table food. Young children will need soft, bite-sized foods.</p> <p>Avoid foods that can cause choking such as hot dogs, grapes, chunks of meat unless cut in pea-size pieces</p> <p>Hydration: Water, Pedialyte</p> <p>SEE ATTACHED SAMPLE MENU</p>	<p>This age group eats table food. Young children will need finger foods.</p> <p>Avoid foods that can cause choking such as hot dogs, grapes, for youngest children.</p> <p>Hydration: Water, Pedialyte</p> <p>SEE ATTACHED SAMPLE MENU</p>
Children With Special Needs	Will be referred to hospital for care			
Children With Diabetes	<p>The nutritional needs of this group will be determined by the patient’s body weight and insulin requirements.</p> <p>Recommendation: Patients may require between-meal snacks to control blood glucose.</p>			

REFERENCES: ADA Manual of Clinical Dietetics. (2000) Sixth Edition.

SAMPLE PEDIATRIC DISASTER MENU

The following sample diet for pediatric patients lists foods that require the minimal amount of preparation or power supply to maintain temperatures.

	Day 1	Day 2	Day 3
	Breakfast	Breakfast	Breakfast
0-6 months	Breast milk or milk-based or soy-based formula	Breast milk or milk-based or soy-based formula	Breast milk or milk-based or soy-based formula
6 months - 1 yr.	Iron-fortified baby cereal	Iron-fortified baby cereal	Iron-fortified baby cereal
	Jarred baby fruit	Jarred baby fruit	Jarred baby fruit
	Breast milk or milk-based or soy-based formula	Breast milk or milk-based or soy-based formula	Breast milk or milk-based or soy-based formula
1 yr. and above	Cheerios (or substitute)	Cheerios (or substitute)	Cheerios (or substitute)
	UHT milk (1-2 years)	UHT milk (1-2 years)	UHT milk (1-2 years)
	Powdered milk (> 2 years)	Powdered milk (> 2 years)	Powdered milk (> 2 years)
	Diced, canned fruit	Diced, canned fruit	Diced, canned fruit
	Lunch	Lunch	Lunch
0-6 months	Breast milk or milk-based or soy-based formula	Breast milk or milk-based or soy-based formula	Breast milk or milk-based or soy-based formula
6 months - 1 yr.	Jarred baby meat	Jarred baby meat	Jarred baby meat
	Jarred baby vegetable	Jarred baby vegetable	Jarred baby vegetable
	Jarred baby fruit	Jarred baby fruit	Jarred baby fruit
	Breast milk or milk-based or soy-based formula	Breast milk or milk-based or soy-based formula	Breast milk or milk-based or soy-based formula
1 yr. - 2 yrs.	Canned beef stew	Macaroni and cheese	Tuna or canned chicken
	Jarred baby vegetable	Jarred baby vegetable	Jarred baby vegetable
	Diced peaches	Diced pears	Diced fruit cocktail
	Bread/crackers	Bread/crackers	Bread/crackers
	UHT milk	UHT milk	UHT milk
2 yrs. plus	Cream cheese/jelly sandwich	Macaroni and cheese	Peanut butter/jelly sandwich*
	Diced peaches	Diced pears	Diced fruit cocktail
	Graham crackers	Graham crackers	Graham crackers
	Powdered milk	Powdered milk	Powdered milk
	Dinner	Dinner	Dinner
0-6 months	Breast milk or milk-based or soy-based formula	Breast milk or milk-based or soy-based formula	Breast milk or milk-based or soy-based formula
6 months - 1 yr.	Jarred baby meat	Jarred baby meat	Jarred baby meat
	Jarred baby vegetable	Jarred baby vegetable	Jarred baby vegetable
	Jarred baby fruit	Jarred baby fruit	Jarred baby fruit
	Breast milk or milk-based or soy-based formula	Breast milk or milk-based or soy-based formula	Breast milk or milk-based or soy-based formula
1 yr. - 2 yrs.	Cheese slices - chopped	Canned chicken - Chopped	Cheese ravioli
	Jarred baby vegetable	Jarred baby vegetable	Jarred baby vegetable
	Applesauce	Diced peaches	Baby fruit
	Bread/crackers	Bread/crackers	Bread/crackers
	UHT milk	UHT milk	UHT milk
2 yrs. plus	Cheese sandwich	Canned chicken sandwich	Cheese ravioli
	Canned pineapple	Diced peaches	Mandarin oranges
	Graham crackers	Graham crackers	Graham crackers
	Powered milk	Powdered milk	Powdered milk

*Check for peanut /nut allergies of all children prior to using peanut butter or any peanut products.

Reference: NYSDOH Pediatric and Obstetrical Emergency Preparedness Toolkit

Hydration Protocol

Rationale

In addition to the fever often associated with pandemic influenza, the need for hydration in such a situation will be increased. As such the provision of hydration is essential in a CBCC.

Treatment Goal

Improve hydration in patients using the least invasive methods possible which include PO hydration and antiemetics. If these fail, institute intravenous fluid therapy.

Planning Assumptions

Planning assumptions regarding hydration during a pandemic influenza event include, but are not limited to:

1. There will be limited availability of individuals with the skill to both insert and monitor intravenous fluids
2. Supplies of intravenous fluids and administration sets will be in limited
3. Influenza with the associated fever will likely lead to the need for increased hydration for all patients
4. Hydration may be provided adjacent to the triage center in an observation area (attempt rehydration and discharge to home) or as part of care at the CBCC

Provider Level and Skill Mix

- Level I Provider
 - a. Assess vital signs
 - b. Provide oral fluids and oral medications
 - c. Monitoring of intravenous fluids for empty bags
- Level II Provider
 - a. Reassessment of patient with abnormal vital signs
 - b. IV insertion
 - c. Changing of intravenous fluids bags and tubing
 - d. Setting IV rates by drip-count method

Etiology/Causes

Hydration is required by all individuals. In times of illness, individuals may not be able to maintain hydration due to:

- Increased fluid needs due to fever
- Inability to tolerate PO hydration or lack of desire to take PO fluids
- Increased losses due to diarrhea and/or emesis

History

Obtain health history, allergies, and current medication list. With regard to issues of hydration, specifically address the following:

- Oral intake of fluids in past 24 hours
- Urine output in past 24 hours
- Any diarrhea or emesis
- Any fever
- Any medications taken for nausea

Assessment

Assess the patient including obtaining vital signs with particular emphasis on signs of hydration including:

- Tachycardia (may not be present if patient is taking b-blocker)
- Dry mucous membranes (lips, mouth and tongue)
- For children when they cry are tears present
- Alterations in mental status especially decreased activity

Indications for Hydration

The following signs of dehydration indicate a need for hydration therapy:

- Decreased urine output (no urine output for 12 hours in adults)
- Emesis, diarrhea

- HR > 100 or change in HR of 20 points or more (may not be present if patient is taking b-blocker). In children use table below

Normal Pediatric Pulse Rate	
Infant	100-160
Toddler	90-150
Preschooler	80-140
School-age	70-120
Adolescent	60-100

Management of Care

For patient with a subjective complaint of a need for fluids or feeling dehydrated:

1. Provide age and condition-appropriate oral fluids (does not require ORT solution)
2. If patient is unable to tolerate or has emesis, begin oral rehydration therapy

For all patients who are dehydrated, begin oral rehydration therapy.

3. Give patient an oral antiemetic if history of emesis or emesis with initial oral rehydration attempt.
 - a. Ondansetron is the preferred agent
 - b. Phenothizines should be avoided due to their interference with oral rehydration therapy secondary to increased sleepiness and the possibility for serious side effects
4. Begin rehydration using an oral rehydration solution.
 - a. Initially provide small volume of liquid 30 ml for adults, 15 ml for children and 5 ml for infants every 5-10 minutes and increase gradually to target of 50-100 ml of oral rehydration solution/kg body weight over 2-4 hours.
 - b. The fluids used should be either a commercially available oral rehydration solution or one that contains the following components:
 - i. Carbohydrate 13.5 gm/L
 - ii. Sodium 75 mmol/L
 - iii. Potassium 20 mmol/L (only included if patient has urine output)
 - iv. Chloride 65 mmol/L

v. Base 30 mmol/L

vi. Osmolarity 245

5. If patient has ongoing losses, administer additional 120-240 ml (infant 60-120 ml) oral rehydration solution for each additional episode of emesis or diarrhea.

For patients who have either failed oral rehydration therapy or who have an alteration in mentation which would preclude oral rehydration, begin intravenous rehydration and then transition to oral rehydration

6. Initiate intravenous access.
7. Administer 1 liter normal saline (20 ml/kg in infants in children) over a maximum of 20 minutes. If patient has history of either renal disease or congestive heart failure, discuss with Level III Provider before administering IV fluids.
8. If patient fails to improve, repeat 1 liter normal saline (20 ml/kg in infants in children) over a maximum of 20 minutes.
9. In children, an additional fluid bolus of 20 ml/kg over 30 minutes may be administered.
10. Give patient an oral antiemetic.
 - a. Ondansetron is the preferred agent
 - b. Phenothizines should be avoided due to their interference with oral rehydration therapy secondary to increased sleepiness and the possibility for serious side effects
 - c. Begin rehydration using an oral rehydration solution.
 - d. Initially provide small volume of liquid 30 ml for adults, 15 ml for children and 5 ml every 5-10 minutes and increase gradually to target of 50-100 ml of oral rehydration solution/kg body weight over 2-4 hours.
 - e. The oral rehydration solution should be composed with the following components:
 - i. Carbohydrate 13.5 gm/L
 - ii. Sodium 75 mmol/L
 - iii. Potassium 20 mmol/L (only included if patient has urine output)
 - iv. Chloride 65 mmol/L
 - v. Base 30 mmol/L
 - vi. Osmolarity 245

11. If patient has ongoing losses, administer additional 120-240 ml (infant 60-120 ml) oral rehydration solution for each additional episode of emesis or diarrhea.
12. If patient tolerates PO, discontinue IVF but maintain saline lock
13. If patient is unable to tolerate PO fluids, continue IVF as follows (If patient has history of either renal disease or congestive heart failure, discuss with Level III Provider before administering maintenance IV fluids):
 - a. Fluids to be used are either D5 ½NS with 20 meq KCL per liter or D5 1/3 NS with 10 meq KCL/liter for children less than 20 kg
 - b. Maintenance rate which is defined as:
 - i. Adults 100 ml/hr
 - ii. Children
 - First 10 kg 4 ml/kg/hr
 - Next 10 kg 2 ml/kg/hr
 - Additional weight 1 ml/kg/hr
 - Ex 15 kg = 50 ml/hr, 30 kg = 70 ml/hr
 - c. IV site to be checked every 12 hours (Level II Provider) with other reassessments (per assessment policy) and to be kept until either signs of infection (redness, swelling and/or pain) occurs or becomes nonfunctional.
 - d. IV bag to be used until empty and tubing changed every 72 hours
 - e. Check drip rate every 6 hours (Level II provider)
14. Reattempt PO hydration every 12 hours

Trigger for Reassessment by Level II Provider

- Change in mental status
- Increased respirations
- Difficulty breathing
- Decreased pulse strength
- Failure to improve or worsening in condition with intravenous rehydration

Criteria to Discontinue of Hydration

- Patient has tolerated rehydration fluid and ongoing sources of loss (emesis and/or diarrhea have stopped).
- Able to tolerate age-appropriate routine fluids without antiemetics..

Threshold for Referral from CBCC to Hospital for Higher Level of Care

- Concern exists for other possible illnesses complicating the clinical course
- Signs of hypovolemic shock
- Signs of respiratory distress during rehydration

EQUIPMENT AND SUPPLIES

- Oral rehydration solutions
- Intravenous catheters
- Normal saline for IV administration
- IV tubing with drip chambers that allow counting of drops to determine rate
- Alcohol preps
- Tourniquets
- Gloves
- Adhesive tape or preconfigured device to secure IV
- IV poles

MEDICATIONS

1. Ondansteron
 - a. Tablet, Oral Disintegrating Table and Liquid Preparations
2. Phenothisine
3. Intravenous Fluids
 - a. Normal Saline
 - b. D5 ½NS with and without KCL
 - c. D5 1/3NS with and without KCL

Oxygen Protocol

Rationale

The ability to provide oxygen therapy at the CBCCs is a critical component of managing care during a pandemic.

Treatment Goal

The treatment goal of the protocol is to provide adequate oxygenation to the greatest number of patients requiring supplemental oxygen using the most efficient use of oxygen resources.

Planning Assumptions

Planning assumptions regarding oxygen therapy during a pandemic influenza event include, but are not limited to:

1. 50% or greater of the patients with pandemic influenza will require oxygen therapy
2. 10% or greater of pandemic influenza patients will develop bacterial pneumonia
3. There is a high prevalence of children with asthma
4. Patients with asthma or other chronic respiratory diseases will have higher oxygen requirements and it is assumed there will be a national shortage of bottled oxygen.

Provider Level and Skill Mix

- Level I Provider
 - a. Monitor vital signs and pulse oximetry
 - b. Check and document that respiratory therapy is being used and the flow rate is as prescribed
 - c. Ambulate patients as appropriate and assist with ADLs (activities of daily living)
 - d. Initiate or discontinue based on protocol and/or direction of Level II Provider
- Level II Provider
 - a. Assess, initiate and monitor oxygen delivery systems, recommend changes in oxygen therapy

Etiology/Causes

Supplemental oxygen may be required for a multitude of medical reasons. For the purpose of patients presenting to the CBCC during a pandemic, the anticipated causes will include, but are not limited to:

- Influenza
- Pneumonia
- Cardiac conditions (unstable conditions would require transfer out of CBCC)
- Acute or chronic respiratory illnesses (COPD, asthma, bronchitis, emphysema) (may require transfer out of CBCC)
- Pneumothorax (would require transfer out of CBCC)
- Pulmonary embolus (would require transfer out of CBCC)

History

Obtain health history, allergies, and current medication list.

Assessment

Triage screening to determine the need for supplemental oxygen includes: history, presenting symptoms, breath sounds, vital signs, and baseline pulse oximetry.

Normal Pediatric Respiratory Rate	
< 1 year	30-60
1-3 years	24-40
4-5 years	22-34
6-12 years	18-30
13-18 years	12-24

Management of Care

Patient Population	Initiate Oxygen (Limited O2 Available Protocol)	Oxygen Target Goal
Adults and Pediatrics	SPO2 <94% (92%) 2 liters	SPO2 > 94%
COPD patients	SPO2 <90% (88%) 2 liters	SPO2 90-92%

Criteria to Increase or Decrease Oxygen Flow for Normal Lung Adults

Increase or decrease the oxygen flow rate by 1.0 liters by nasal cannula as often as every 10 minutes to maintain the appropriate SpO₂ as follows

SpO₂ > 99% - decrease O₂ flow rate by 1 liter

SpO₂ < 92% - increase O₂ flow rate by 1.0 liter

Trigger for Reassessment by Level II Provider

- Complaints of chest pain
- Any of the following after increasing oxygen via treatment protocols to a maximum of 6 lpm
 - Respiratory rate greater than 18 in adults
 - Respiratory rate above or below normal respiratory rate in pediatric patients
 - Pulse oximetry less than 94% in adults and pediatrics
 - Symptomatic patient with history of chronic respiratory diseases
- Wheezing or shortness of breath

Criteria to Discontinue Oxygen and Discharge

- SPO₂ oxygen target goal met and sustained for 2-4 hours and respiratory rate <18 (Pediatric normal for age) for 2-4 hours off oxygen
- Ambulate patients to ensure that oxygen target is maintained (some patients may not demonstrate a need for oxygen at rest, but will become hypoxic during ambulation)

Threshold for Consideration of Referral from CBCC to Hospital for Higher Level of Care

- Cardiac symptoms
- Inability to increase Spo₂ to >92% and/or continued abnormal ventilatory rate of >18 with oxygen increased to maximum of 6 lpm.
- Unstable patient as determined by Level II Provider after consultation with Level III Provider

Clinical Pearls

1. In the event the patient is asymptomatic and the clinical presentation does not correspond with the pulse oximetry, consider equipment malfunction and reassess patient with a different probe at an alternate site. If this fails, patient should be re-triaged.
2. Patients may present hyperventilating due to anxiety with a respiratory rate > 18 and a normal pulse oximetry of 95-100%. May complain of feeling dizzy and experience numbness and tingling of the hands, feet or around the mouth. Refer to provider/designee.
3. In most cases, radial pulse should correspond with heart rate from Pulse Oximeter if reading is correct. Factors that may affect pulse oximetry results:
 - Motion artifact
 - Abnormal hemoglobin
 - Low perfusion states
 - Skin pigmentation
 - Nail polish or nail coverings
 - Inability to detect saturations below 83% with the same degree of accuracy as at higher saturations
4. Oxygen delivery devices:
 - a. Nasal canulas can provide low-flow oxygen up to 6 L/min in adults
 - b. Non-rebreather should be maintained at minimal flow rate of 10 L/min
 - c. Simple oxygen masks (if available) should be maintained at 5 L/min or greater to avoid rebreathing exhaled CO₂ that can be retained in the mask
 - d. Venturi masks (if available) – refer to the manufacturer's instructions for directions and flow rates.
 - e. Oxygen concentrators can deliver 90-95% oxygen at 10 L/min

Additional Medical Care Protocols for Reference

- Hydration protocol
- Bronchodilator protocol
- Antibiotic protocol
- Antiviral protocol

EQUIPMENT

- Oxygen Concentrators*
- Y adaptors (2 patients on one 5 LPM concentrator)
- Multilator (multi-patient oxygen manifold for 2-5 patients on one 10 LPM concentrator)
- Nasal cannulas
- Non-rebreather masks
- Ambu bags
- Pulse oximeters and probes
- Oxygen cylinders and flow meters for emergency/ backup use for concentrators
- Connecting tubing
- Cylinder flow sheet to determine the amount of time per cylinder based on liter flow
- Battery-operated suction device

* Should be able to deliver at a minimum 6 lpm but 10 lpm is preferred. Concentrators do not require compressed gas or liquid oxygen. Oxygen concentrators require electricity. Backup generators are required at the CBCC in the event of a power failure.

Strategies to Conserve Oxygen Resources at CBCC*

1. Monitor Use and Revise Clinical Targets
 - a. Oxygen titration to optimize flow or % to match targets for SPO2
 - b. Optimization of flow will minimize overall oxygen use
 - c. Discontinue oxygen at earliest possible time.
 - d. Targets may be adjusted further downward depending on resources
2. Utilize Low-Flow Applications
 - a. Utilize nasal cannulas as available/appropriate
 - b. Non-rebreather masks will be used at 10 LPM minimum
4. Oxygen Reallocation Implementation
 - a. Patients may be prioritized and subject to triage protocols for oxygen administration with severe limitation of resources.
5. Personal Concentrators or Home Oxygen
 - a. Request patients on home concentrators, oxygen or nebulizer delivery systems to bring their equipment with them to the CBCC.

*References: Mass Medical Care During an Influenza Pandemic, County of Santa Clara, Public Health Department May 31, 2007

Bronchodilator Protocol

Rationale

Patients presenting to the CBCC may have bronchospasm as a new condition or having been triggered by influenza in patients with preexisting bronchospastic conditions. Use of bronchodilators may improve oxygenation and decrease respiratory distress in these patients and is a treatment modality that can be administered at a CBCC.

Treatment Goal

The treatment goal of the protocol is to

- Reduce bronchospasm and improve oxygen saturation
- Prevent respiratory failure and improve distress

Planning Assumptions

Planning assumptions regarding bronchodilator therapy during a pandemic influenza event include, but are not limited to:

1. Patients presenting to the CBCC may have bronchospasm due to:
 - a. Influenza (mostly in patients predisposed to bronchospasm)
 - b. Irritation of hypersensitive airways by a stimulus such as viral infections
 - c. Reversible bronchospasm might also occur in hypersensitive airways as a result of exposure to allergens, irritants, and some medications
 - d. Preexisting respiratory conditions such as asthma and COPD
2. In patients with respiratory distress or hypoxia, which does not improve with oxygen, even in the absence of known bronchospasm, and due to the limited ability of providers to detect wheezing, a therapeutic trial of a bronchodilator will be attempted.

Provider Level and Skill Mix

- Level I Provider – Administer bronchodilator
- Level II Provider – Assessment of bronchospasm and reassessment of respiratory status and need for bronchodilators

Etiology/Causes

Bronchodilator may be required for a multitude of medical reasons. For the purpose of patients presenting to the CBCC during a pandemic, the anticipated causes will include, but are not limited to:

- Worsening influenza with respiratory compromise
- Hypersensitive airways with exposure to allergens, irritants, or medications
- Pneumonia
 - Viral
 - Bacterial
- Preexisting conditions such as:
 - Asthma
 - COPD

History

Obtain health history, allergies, and current medication list. In addition to a general history, the following specific items should be asked:

- Report of shortness of breath or tight feeling in chest
 - Duration?
- History of asthma, recurrent cough, COPD, congestive heart failure, heart disease?
- History of being hospitalized for respiratory problems?
 - Hospitalized in last year?
 - ICU admissions?
 - Intubation?
- Prescription home medications to help their breathing?
 - Do they have their medications with them?

- If they have had respiratory problems in the past what was the trigger?
- If they have asthma do they use a peak flow meter at home?

Assessment

The assessment should include vital signs, pulse oximetry, mental status, breath sounds, and work of breathing with particular attention to the following additional items:

- Unable to say short phrases before running out of breath
- Increased anxiety/ restlessness
- Abnormal respiratory rate <10 or > 18 breaths per minute (or abnormal for age in children)
- Coughing
- Wheezing either audible or on auscultation
- Diminishing to absent lung sounds on auscultation
- Retractions--using accessory muscles in breathing
- Grunting in a pediatric patient
- Pulse ox < 94% on room air

Indications for Bronchodilator Therapy

Institute bronchodilator treatment in patient with known bronchospasm and respiratory distress or initiate a trial of bronchodilator therapy in any patient if any of the following are present:

- Wheezing even if this is their first episode
- Pulse ox < 94% RA despite supplemental oxygen up to 6 lpm
- Increased work of breathing (retractions) with RR > 18 (greater than normal for age in pediatric patient) despite supplemental oxygen up to 6 lpm

Management of Care (bronchospasm and respiratory distress)

1. Allow patient to seek position of comfort
2. Oxygen to keep sat >92% (see oxygen protocol)
3. Initial treatment will be three treatments in the first hour of care and then treatment will be adjusted based on patient's assessment

4. Administer inhalational bronchodilator via one of the following methods:

- Nebulizer (6-10 liter per minute flow oxygen if needed to maintain O2 saturation > 94%)
- Dosing for Albuterol and Ipratropium Bromide:
 1. Initially provide a combination of Albuterol 2.5 mg and Ipratropium Bromide 500 mcg in 3 ml Saline over 20 minutes for three treatments
 2. Continue Albuterol - 2.5 mg in 3ml saline taken by inhalation over five to fifteen minutes every 2 hours. If therapy is required greater than every two hours, patient will be transferred out of CBCC.
- To inhale the solution using a nebulizer, follow these steps;
 1. Remove one vial of Albuterol solution from the foil pouch. Leave the rest of the vials in the pouch until you are ready to use them.
 2. Look at the liquid in the vial. It should be clear and colorless. Do not use the vial if the liquid is cloudy or discolored.
 3. Twist off the top of the vial and squeeze all of the liquid into the nebulizer reservoir.
 4. Connect the nebulizer reservoir to the mouthpiece or face mask.
 5. Connect the nebulizer to the air source, or if the patient has an oxygen saturation < 94%, connect it to the oxygen source.
 6. Place the mouthpiece in your mouth or put on the face mask. Sit in an upright, comfortable position and turn on the compressor.
 7. Breathe in calmly, deeply, and evenly for about 5-15 minutes until mist stops forming in the nebulizer chamber.

- MDI (reserved for patients previously prescribed MDI, discharge, educational needs or if personnel available to educate on MDI use)
 - MDI and HFA Advantages:
 - Require no electrical power
 - Small size and easily stored
 - Patient can operate alone
 - Disadvantages:
 - Needs spacer for best delivery
 - Difficult for small children to use
 - Dosing for bronchospasm with MDI:
 - 4 inhalations (puffs) of Albuterol and 4 inhalations (puffs) of Ipratropium Bromide.
 - If patient unable to use MDI or HFA effectively then administer bronchodilator via a nebulizer.
 - To use the aerosol inhaler, follow these steps:
 1. Remove the protective dust cap from the end of the mouthpiece. Check the mouthpiece for dirt or other objects.
 2. When using the inhaler for the first time, or if the inhaler has not been used in more than 14 days, you will need to prime it. To prime the inhaler, shake it well and then press down on the canister 4 times to release 4 sprays into the air, away from the face.
 3. Shake the inhaler well.
 4. Attach spacer device (if available).
 5. Breathe out as completely as possible through your mouth.
 6. Hold the canister facing you, with the mouthpiece on the bottom, and the canister pointing upward. Place the open end of the mouthpiece into your mouth. Close your lips tightly around the mouthpiece.
 7. Breathe in slowly and deeply through the mouthpiece. At the same time, press down once on the container to spray the medication into your mouth.
 8. Try to hold your breath for 10 seconds, remove the inhaler, and breathe out slowly.
 9. Use 2 puffs and replace cap on inhaler.
- Adjustment of interval of treatment:
 - Initially provide Albuterol treatments every 2 hours
 - Assess before each treatment, and if none of the following are present increase interval by one hour and then reassess before next treatment:
 - Wheezing
 - Pulse ox < 94% RA
 - Increased work of breathing (retractions) with RR >30 (greater than normal for age of pediatric patient)

Management of Care (Patients Previously Prescribed Albuterol without respiratory distress)

1. Patients with history of bronchospasm and home meds may use them as previously directed by PMD
 - Reassess in 1 hour
 - Sat>94%
 - Continue home meds
 - Reassess q 8 hours
 - Sat<94%
 - Evaluate by M.D.
 - Consider oral corticosteroids (see protocol)

Trigger for Reassessment by Level II Provider

- New onset fever > 100.4° F following clinical improvement in previously afebrile patient
- Diminishing pulse ox values despite initial improvement on bronchodilators and supplemental oxygen therapy
- After bronchodilator therapy
 - Failure to achieve pulse ox > 94% with supplemental oxygen up to 6 lpm
 - Abnormal respiratory rate <10 or > 18 breaths per minute (for pediatric patients outside normal range)

- Presence of serious side effects
 - fast, pounding, or irregular heartbeat
 - chest pain
 - rash
 - hives
 - itching
 - swelling of the face, throat, tongue, lips, eyes, hands, feet, ankles, or lower legs
 - increased difficulty breathing
 - difficulty swallowing
 - hoarseness

Criteria to Discontinue Bronchodilators

Discontinue bronchodilator therapy if at 6 hours from last treatment all of the following are present:

- Absence of wheezing
- Pulse ox > 94% RA
- Normal respiratory rate and effort
- Able to speak in full sentences and walk without respiratory difficulty

Threshold for Consideration of Transfer from CBCC to Hospital for Higher Level of Care

- Diminishing pulse ox values and unstable vital signs despite treatment with bronchodilators and supplemental oxygen therapy
- Pulse ox value < 94% despite use of bronchodilators and oxygen therapy
- History of CHF with pulse ox < 94% on RA
- History of unstable cardiac disease with pulse ox < 94 % on RA

Clinical Pearls /References

Expert panel Report 3 (EPR3): Guidelines for the Diagnosis and Management of Asthma www.nhlbi.nih.gov/guidelines/asthma/asthgdln.htm

Additional CBCC Medical Care Protocols for Reference

- Hydration protocol
- Oxygen protocol
- Antibiotic protocol

EQUIPMENT AND SUPPLIES

- Oxygen Concentrators*
- Y adaptors (2 patients on one 5 LPM concentrator)
- Multilator (multi-patient oxygen manifold for 2-5 patients on one 10 LPM concentrator)
- Nebulizer masks
- Ambu bags
- Pulse oximeters and probes
- Oxygen cylinders and flow meters if concentrators not available
- Air source
- Connecting tubing
- Cylinder flow sheet to determine the amount of time per cylinder based on liter flow

*Concentrators do not require compressed gas or liquid oxygen. Oxygen concentrators require electricity. Backup generators are required at the CBCC in the event of a power failure.

MEDICATIONS

- Albuterol
- Combination Albuterol and Ipratropium Bromide

Pain Management and Analgesia Usage Protocol

Rationale

The ability to provide analgesia to all patients is a cornerstone of medical care and the provision of pain control is necessary in a CBCC.

Treatment Goal

Reduce discomfort to a level that is acceptable to the patient and assess for a more serious underlying condition.

Planning Assumptions

Planning assumptions regarding pain management during a pandemic influenza event include, but are not limited to:

- To conserve resources at the CBCC, analgesia will initially be provided orally
- Narcotics will be necessary and, unless a waiver is in place, existing narcotic laws and regulations will need to be followed.

Providers and Skill Level

- Level I Provider – Bring PO medications to patients
- Level II Provider – I Assess patient and administer IV medication

Etiology/Causes

Analgesia may be required for a multitude of medical reasons. For the purpose of patients presenting to the CBCC during a pandemic, the anticipated causes will include, but are not limited to:

- Back pain usually involves the lower back and can be caused by a strain/tear of the muscles/ligaments, injury to the disc or vertebrae, nerve pressure or fatigue.
- Cardiac pain may present itself as pain between the shoulder blades.
- Kidney stones or kidney infections are frequently associated with severe flank pain and vomiting.

History

Obtain health history, allergies, and current medication list. With regard to complaints of pain specifically address the following:

- Location (draw a diagram or use a body sketch on the progress note), quality (sharp, stabbing, throbbing, ache, etc.), duration (sudden onset or chronic) and amount/level of pain (use a 0-10 scale, a color-scale diagram or the frown-faces diagram for children).
- Activities performed when pain started – is it musculoskeletal-related?
- History of previous episodes of the same type of pain and the effectiveness of treatments in the past and what those treatments were – rest, medication, etc.
- Associated numbness, tingling, weakness or paralysis of one or both legs.
- Associated abdominal pain or pain related to a myocardial infarction (shortness of breath, sweating, nausea or chest pain).
- Does pain radiate from the back to either/both legs?
- Is there a history of hypertension or heart disease?

Assessment

- Obtain vital signs.
- If the pain started due to a fall and the patient is not able to walk afterward, do not attempt to get them up or move them. Call for transport immediately and treat them for comfort only.
- Visually inspect the patient for signs of bruising, swelling or other signs of trauma.
- Look for weakness in extremities.
- During the course of an exam, gently palpate and visualize the area the patient is complaining about looking for clues to possible causes of the pain.

Management of Care

1. Encourage patient to avoid activities that exacerbate back pain (i.e., lifting).
2. Attempt non-pharmacological interventions first.
 - a. For an acute muscle pull, apply cool packs intermittently for the first 24 hours to reduce inflammation and swelling, followed by warm moist compresses – 20 minutes of cold or heat every hour while awake for the first 5 days.
 - b. For stiffness or fatigue, place a warm compress on the affected area.
3. Determine any allergies to medications that the patient may have.
4. Use of over-the-counter analgesics are appropriate if not contraindicated.
 - a. Initial therapy should use NSAID:
 - i. Acetaminophen 650 mg may be repeated every 4 hours
 - ii. Ibuprofen 600 mg tabs may be repeated every 6 hours
 - b. If pain is not controlled with NSAID after 60 minutes, or deemed to be severe at presentation, treat with oral narcotic agent:
 - i. Lortab 2.5/500 1-2 tabs may be repeated every 4 hours
 - ii. Lortab 5/500 1-2 tabs may be repeated every 4 hours
 - iii. Lortab 7.5/500 1-2 tabs may be repeated every 4 hours
 - iv. Codeine with acetaminophen may be repeated every 4 hours
 - v. Oxycodone with acetaminophen may be repeated every 4 hours
 - vi. Hydrocodone with acetaminophen may be repeated every 4 hours
 - c. For patients receiving palliative care or unable to tolerate PO medications, administer IV narcotic:
 - i. Morphine sulfate IV or SC
 - ii. Hydromorphone, IV or SC

Trigger for Reassessment by Level II Provider

- Complaints of chest pain or upper back pain
- Change in mental status
- Depressed respirations
- New onset pain after analgesia
- Pain not controlled with analgesic agent

Criteria to Discontinue Analgesic Agents

- Patient denies having pain immediately before administration of next dosage of analgesic agent or change in respiratory rate and/or falling pulse oximetry values.

Threshold for Consideration of Referral from CBCC to Hospital for Higher Level of Care

- Discuss with physician and consider transport to higher level of care if:
- Pain was caused by impact injury or trauma.
- Pain is severe and/or the patient is unable to walk.
- Back pain is associated with shortness of breath, chest pain, abdominal pain or tenderness, fever, vomiting, sweating, or pulsating mass in the abdomen.
- There is numbness, weakness or paralysis of the lower extremities.
- Presence of blood in the urine, stool, or if the patient is having difficulty urinating or passing stool.
- There is persistent hypotension, slowed respiratory rate or decreased pulse oximetry values
- Attempts to manage the pain with existing medications have not worked and the patient's pain level is increasing.

Additional CBCC Medical Care Protocols for Reference

- Palliative Care

EQUIPMENT AND SUPPLIES

- Measuring devices
- IV administration supplies
- Medication storage
- Hot and cold packs

MEDICATIONS

- Naloxone
- Ibuprofen
- Acetaminophen
- Acetaminophen with Oxycodone
- Acetaminophen with hydrocodone
- Morphine
- Hydromorphone
- Acetaminophen with codeine

Palliative Care Protocol

Rationale

The fundamental goal of palliative care is to keep the patient comfortable and allow them to die peacefully and with dignity. This includes providing for their physical, emotional, and spiritual care needs to the best extent possible given the limitations of the CBCC. During a pandemic influenza outbreak there will be patients, young and old, dying from the flu and its associated underlying infections. Also, there will be patients suffering from the normal host of disease processes that affect every body system including, but not limited to, cardiac, respiratory, renal, and neurological. The care that we provide to these patients, during the dying process and immediately afterwards, is what we will be remembered for by future generations.

Treatment Goal

Reduce discomfort to a level that is acceptable to the patient and allows maximal comfort with available resources for patients who are likely to die.

Planning Assumptions

Planning assumptions regarding pain management during a pandemic influenza event include, but are not limited to:

- The patient's and families' need to have updated information so they may understand their condition and treatment options.
- The decision making process about the patient's plan of care must be sensitive not only to changes in the patient's condition but also to the availability of, or limitations to, resources in the CBCC and in the community.
- All care provided in the CBCC must address pain and symptom control, psychosocial distress, and spiritual issues, with the patient and their family throughout the continuum of care.
- Depending on both staff resources and space resources, a CBCC may have units/wards designated for both influenza and non-influenza patients.

- As part of a local CBCC, palliative care may be provided in a separate area, Palliative Care Unit

Provider and Skill Levels

- Level I Provider – Administration of oral medications and comfort care
- Level II Provider – IV placement and confirmation of absence of signs of life

Etiology/Causes

The need for palliative care may come from multiple situations including:

- Primary – While in the CBCC, the condition of the patient deteriorates to the point that further aggressive treatment is no longer appropriate or available, or the patient/family elects to stop aggressive treatment and focus on the provision of palliative care.
- Secondary – Acceptance into a CBCC of outside patients who are pan-flu exposed and who have palliative care needs. These patients are not able to have palliative care provided for them at a hospital (maybe due to lack of: space in the hospital or hospice facility; medications; support staff; supplies, etc.)
- Tertiary – Need to free beds at acute care hospital leading to triage of certain patients to palliative care
- Quaternary – The patient who is either at home or in the hospice unit will be accepted if they have at least one caregiver who will help provide care and they understand Pan Flu exposure risk.

History

The focus of the history for palliative care should be to identify areas of discomfort for the patient in an effort to relieve them. Specific attention should be paid to:

- Difficulty breathing
- Pain

Assessment

Upon admission directly to, or transfer into, palliative care, a baseline set of vital signs will be obtained, then no further vital signs will be taken. When the patient stops breathing, has no palpable pulse, no heart sounds and has fixed and dilated pupils, the family member or CBCC staffer will inform the Level II Provider who will confirm that the patient has no detectable vital signs. S/he will follow the death and mortuary care protocol.

Management of Care

The following treatment guidelines are designed to achieve the primary goal of making the patient comfortable.

1. Activity as tolerated, make as comfortable as possible on the cot. Assist patient with toileting and bathing, use bedside commode as tolerated. Patient is unlikely to be able to eat or drink, so offer sips of liquids or ice chips as patient wishes. Use glycerin swabs or oral sponges to moisten the mucous membranes.
2. Provide air/oxygen as resources permit to promote patient comfort.
 - If oxygen is available in the palliative care unit and it provides comfort to patient, offer oxygen at 2 – 6 liters/minute by nasal cannula.
 - If no oxygen available, provide room air via nasal cannula at 2 liters/minute, if it promotes comfort for patient.
 - If no air delivery source available, provide small, standing fan positioned to blow air toward patient's head/face and upper body.
3. For dyspnea that is mild, treat with O₂/air as noted above, but for moderate to severe SOB, provide a narcotic based on available resources. The preference is for immediate release morphine sulfate (i.e. MSIR, Roxanol) 5- 10 mg SL or SC q 2-4 hr. Assess level of dyspnea, and if not adequately relieved, may increase by 5 mg increments until symptoms are relieved. May use oral narcotics in lieu of IV.
4. If the patient has excessive respiratory secretions and the medication is available, use Hyoscomine (Levsin) 0.125 mg SL q 4 hrs prn, OR Atropine 1% ophthalmic drops 2-4 gtts q 4 hrs SL prn.
5. Pain Management:

For mild pain use acetaminophen per the table below.

 - For moderate to severe pain, provide the patient with a narcotic analgesic.
 - If the patient can take oral medications, this is the preferred route of administration. Choices would include:
 - Immediate-release morphine sulfate (MSIR, Roxanol) 10 mg po or SL q 4 hr. Assess level of pain/dyspnea, and if not adequately relieved, may increase by 5 mg q 1 hr (e.g., start with 10 mg po q 4 hrs, reassess in 1 hour, increase to 15 mg p.o. if still experiencing pain, then if still inadequate relief, increase to 20 mg one hour later, etc).
 - Once adequate dose determined, provide that dose q 4 hours over the first 24 hours.
 - Once adequate pain control has been reached, calculate total dose needed over 24 hrs and convert to sustained release (for example, Morphine sulfate 20 mg po q 4 hrs = 180 mg/ 24 hrs. This is equivalent to Morphine sulfate, sustained release (MS Contin, Oramorph) 90 mg po q 12 hr).
 - Alternate oral narcotics which may be used based on availability:
 - Lortab 2.5/500 tabs may be repeated every 4 hours
 - Lortab 5/500 tabs may be repeated every 4 hours
 - Lortab 75/500 tabs may be repeated every 4 hours
 - Darvocet N-100 tabs may be repeated every 4 hours
 - Codeine with acetaminophen may be repeated every 4 hours

- Oxycodone with acetaminophen may be repeated every 4 hours
 - Hydrocodone with acetaminophen may be repeated every 4 hours
 - If patient cannot take oral medications: morphine sulfate-IR tabs, or oral morphine solution 20 mg/ml, 15 mg PR q 4 hrs, and adjust as above, OR morphine sulfate 3 mg SQ/IV q 1 hr. Titrate up q 30 mins to patient comfort.
6. Restlessness/Agitation may be treated with Lorazepam (Ativan) 2 mg po/SL/SQ/IV q 4 hrs prn or Haloperidol (Haldol) 0.5 mg q 6 hrs prn if available or narcotics.
7. If fever is causing discomfort, may give Acetaminophen as needed. (Offer PR or liquid as an option), see the chart below.
8. Emesis should be treated with an antiemetic.
- Ondansetron is the preferred agent
 - If ondansetron is not available one may substitute a Phenothizine but be careful of the possibility for serious side effects. Promethazine 25 mg po prn nausea. May repeat q 4– 6 hrs prn nausea. If patient cannot tolerate oral medications, may give PR or IM. If ineffective after

24 hours, change to prochlorperazine (Compazine) 10 mg POQ 6 hrs prn nausea or vomiting. If patient cannot tolerate oral medications, may give 25 mg suppositories PR q 12 hrs prn nausea or vomiting.

9. For a cough which is discomforting to the patient, hydrocodone 5 mg with homatropine 1.5 mg/5 ml (Hycodan, Hydromet) 5 ml PO q 4 hrs prn cough may be given. If this is not available, codeine 30 mg PO q 4 hrs may be substituted.
10. If the patient is experiencing diarrhea which is occurring at a frequency which is discomforting, administer Loperamide (Imodium) 4mg (2 tabs) 1st dose, then 2 mg = 1 tab after each loose stool, not to exceed 8 tabs/day. If Loperamide is not available one may substitute Codeine 30 mg PO.

Trigger for Reassessment by Level II Provider

- Absence of signs of life

Weight lbs (kg)	Dose	Route	Tylenol liquid 160 mg/5 ml 10-15 mg/kg	Frequency	24 hrs dose not to exceed
36-47 (16-21)	240 mg	PO/PR	7.5 ml	every 4 hrs prn	5 doses/day
48-59 (22-26)	320 mg	PO/PR	10 ml	every 4 hrs prn	5 doses/day
60-71 (27-32)	400 mg	PO/PR	12.5 ml	every 4 hrs prn	5 doses/day
72-95 (33-43)	480 mg	PO/PR	15 ml	every 4 hrs prn	5 doses/day
>96 (>44)	640 mg	PO/PR	20 ml	every 4 hrs prn	4000 mg
>154 (>70)	650 mg	PO/PR	20 ml	every 4 hrs prn	4000 mg

Criteria to Discontinue Palliative Care

In most cases, the patient in palliative care will expire but in certain cases the patient's condition may improve such that if resources are available the patient may be transferred from palliative care to either hospital care or CBCC care. If the patient's condition improves as confirmed by a Level II provider, then s/he will communicate with the Level III provider regarding possible transfer out of palliative care.

Threshold for Consideration of Referral from CBCC to Higher Level of Care

When the patient stops breathing, has no palpable pulse, no heart sounds and has fixed and dilated pupils confirmed by a Level II Provider, the patient will be transferred from the CBCC to the mortuary per the mortuary protocol.

If the patient's condition has improved and the patient requires care that exceeds the level of care provided in the CBCC, then this will be communicated through the incident command system. The incident commander or his/her designee will then determine if resources will permit transfer from the CBCC to an acute care hospital.

EQUIPMENT AND SUPPLIES

- Measuring devices
- IV administration supplies
- Medication storage
- Fan

MEDICATIONS

- Naloxone
- Ibuprofen
- Acetaminophen
- Acetaminophen with Oxycodone
- Morphine
- Hydromorphone
- Acetaminophen with codeine
- Ondanestron
- Loperamide
- Hydrocodone
- Lorazepam
- Haloperidol

Deceased/Mortuary Protocol

Rationale

- It is highly likely that patients will die while being treated at the CBCC for the following reasons:
 - Available beds at hospitals and hospice facilities will be severely limited
 - Some patients will be admitted to the CBCC in terminal condition for comfort care only
 - Some patients will succumb to the Pandemic Influenza or secondary pneumonia as their disease progresses while a higher level of care at a hospital is still unavailable.
- Procedures must be in place to assist relatively unskilled personnel in recognizing the physical signs of death so that ongoing care can be withdrawn thus saving resources for other patients who are salvageable.
- Procedures should be in place to guide regarding what to do with family members
- Procedures should be in place to guide disposition of body

Goals

- Recognition of signs of death
- Efficient use of resources
- Humane but efficient processing of dead bodies from the CBCC
- Infection control

Planning Assumptions

- NYS DOH will have developed and implemented mass fatality mortuary plans. These plans will guide ultimate disposition of bodies.
- Declaration of death can be performed only by a licensed physician or coroner.

Provider Level and Skill Mix

- Level II Personnel – confirm absence of signs of life

Physical signs to be looked for and documented-- all must be present

- Lack of carotid or femoral pulse
- Lack of movement of chest indicating no respiration
- Lack of breath sounds with stethoscope
- Vigorously rub sternum or shin with hard object to see if patient moves to pain or other maneuver
- Skin color –white, grey, blue or blue only on the most dependent areas –lividity

Protocol

- Assess for signs listed above
- Document in chart lack of any signs of life
- Withdraw all medical care
- Remove oxygen and IV equipment
- Notify family of outcome, if possible
- Move patient to separate room, if possible, or handle as per mortuary plan
- After family contact and visitation (if allowed), body to be placed in body bag
- At family request, notify pastoral care, if available
- Notify medical control – if licensed physician on site, can override protocol
- Notify coroner or incident command
- For disposition of body, follow mass fatality protocols as per NYS DOH

Family care protocol (Optional. If resources permit and based on local planning)

- Family to be notified with at least three attempts made to call family. Attempts to be documented on chart.
- If family is found, final disposition of body can be delayed for up to 4 hours
- Family will be allowed to visit body if placed in separate room
- Family members must wear surgical/procedure masks and gloves
- Family members can touch body but not bring head in proximity to body, i.e., kissing.

- Family members can remove mask and then must thoroughly wash hands after leaving facility
- Body can then be placed in body bag and disposed of as per mass fatality protocol
- Visitation should not occur in CBCC

Additional Medical Care Protocols for Reference

- Mass fatality plan from DOH or SEMO
- Infection control protocol

EQUIPMENT

- Body Bag

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