

NYCTP

New York Centers for Terrorism Preparedness and Planning

MASS CASUALTY/TRAUMA EVENT PROTOCOL

DRAFT July 2006

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All inquiries about the "NYCTP Mass Casualty/Trauma Event Protocol" may be addressed to:

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NEW YORK CENTER FOR TERRORISM PLANNING AND PREPAREDNESS (NYCTP)

Background:

The New York Center for Terrorism Planning and Preparedness (NYCTP) is a consortium of nine hospitals organized under the Federal Health Resources & Services Administration (“HRSA”) Hospital Preparedness Grant for the purpose of improving New York City Hospitals’ capacity to respond to bio-terrorist attacks as well as other public health emergencies. is composed of three core facilities: Bellevue Hospital Center (a city hospital system), New York University Medical Center (an academic voluntary hospital system), and the Manhattan Veterans Administration (VA) Hospital (a federal hospital network). The six partner institutions (both acute care and chronic long-term care facilities) include: Coler/Goldwater Specialty Hospital and Nursing Facility, the Hospital for Joint Diseases Orthopedic Institute, Woodhull Medical and Mental Health Center, Gouverneur Healthcare Services, and the Brooklyn VA and Queens (St. Alban’s) VA Hospitals.

The purpose of the NYCTP, in responding to duties specified under the grant, is to both assess current emergency preparedness and surge capacity activities in the participating hospitals and also develop and further implement strategies and protocols for managing resources, patient influx and staff activity during a mass casualty event. Each hospital acknowledged its strengths in each area of disaster preparedness and worked to increase the capabilities of all hospitals involved by integrating response plans and formulating memorandums of understanding (MOUs) for the sharing of staff and supplies between facilities during a disaster.

NYCTP Mass Casualty/Trauma Event Protocol for NYC Hospitals

July 2006

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1. PURPOSE

The CBPP, the Center for Bioterrorism Preparedness Planning and the New York Center for Terrorism Preparedness and Planning (NYCTP), has developed this Mass Casualty Event Protocol. The Mass Casualty/Trauma Event Protocol outlines the triage process to be used in the event of mass casualty/trauma event of any type. The New York Center for Terrorism Preparedness & Planning (NYCTP) was created in 2003 in response to the 2nd year of funding under the Federal Health Resources & Services Administration ("HRSA") Hospital Preparedness Grant Program. For the past two years, it has successfully coordinated under the expertise and leadership of the New York City Department of Health and Mental Hygiene (NYCDOHMH), planning efforts across 3 core member hospitals in pursuit of the HRSA grant objectives: for the purpose of improving New York City Hospitals' capacity to respond to bio-terrorist attacks as well as other public health emergencies.

Each of the core institutions of the NYCTP group has their particular strengths. Bellevue Hospital, a Level 1 Trauma Center with a Pediatric center and an acute psychiatric facility, has significant experience in the treatment of large numbers of critically-injured patients including those resulting from a disaster like that experienced on September 11, 2001. NYU Medical Center offers the Rusk rehabilitation center, a viable and valuable surge capacity space and large numbers of highly qualified physicians through the NYU Medical School. The VA-Manhattan has extensive capabilities in the area of biological and chemical agent detection and, as a federally funded institution, is granted access to emergency government caches of supplies, medicines, and has rapid access to government assets and experts.

The following are the types of questions that a hospital should explore when assessing how to respond to a point in time event: *How would a facility be utilizing their outpatient facilities for mass trauma event? Could a hospital be closed and could they bring staff to the hospitals? And vice versa?* Hospitals that already have family centers or are establishing family centers need to address the problematic issue of getting patients transported to their facility and back.

2. ACTIVATION OF THE PROTOCOL

The decision to implement the Mass Casualty/Trauma Protocol should be determined by the Incident Commander (according to the facility's HEICS model). Once consideration is being given to implement the protocol, a facility's Communications department should notify personnel they have identified in their protocol.

A disaster is defined as an event which causes or may potentially cause a disruption of normal hospital operations and delivery of patient care services.

When the determination of a disaster is made in accordance with the procedure which follows, HEICS is implemented and a Command Post activated for the management of disaster response activities

1. Notification comes to the ED from an external source (Fire, Police, etc.) or from hospital administration that a mass casualty/trauma event has occurred and that it is expected that a significant number of casualties will be arriving.
2. The senior-most emergency department leadership, nursing leadership or hospital administrator available at the facility, should immediately consult and decide whether protocols should be invoked.

3. Invocation of the protocol should be accomplished by the senior leadership by calling *Communications* or other appropriate representative and requesting that a disaster declaration be made to activate—depending upon scope and nature of event—disaster beepers, disaster bells, overhead page, and response teams at each given facility.
4. The senior hospital administrator at the facility should assume the role as *area treatment supervisor* and assign teams to functional responsibilities.
5. The senior-most emergency department physician should assign the *Triage Commander*.
6. Rapid disposition rounds should be conducted by the *ED Site Commander* and the *Charge nurse*. A decision to either admit or discharge should be made based on the information currently available on each patient, and patients should be appropriately moved to clear the ED.
7. The supervisors of all departments and services should respond to the disaster declaration by: -referring to their department disaster plan and review their job action sheets.
8. All Critical care units should conduct rapid rounds and transfer appropriate patients to floor beds.
9. Security should institute a lock-down of the hospital, and screening procedures should be conducted.
10. Stretchers should be placed in the corridors outside the ED by ambulance bay entrance for casualties.
11. Materials management should deliver the pre-assembled disaster carts to the designated patient care areas.

3. COMMUNICATIONS

Hospital employees should immediately assume the responsibilities of their assigned roles upon activation of the Mass Casualty/Trauma protocol. Inter-hospital and regional coordination of activities should be coordinated under the Disaster Plan of the City of New York by the Office of Emergency Management (OEM).

During a major emergency, a hospital's telephone service may be overloaded or disrupted. In such an event, the person responsible for hospital communications should ensure consistent communication. The Communications Department should handle and coordinate internal communications and serve as a focal point for incoming and outgoing calls. In addition, the Communications Department, with the support of Security, should provide emergency communication equipment, such as radio systems, public address systems, and portable radio units, for communications between employees throughout the emergency and for contacting emergency personnel. If Evacuation of the building becomes necessary, specific guidance for travel route and in-house transportation must be a systematic, coordinated effort in order to remove all patients, visitors, and staff from the facility in a safe and timely manner. General evacuation guidelines should include:

A hospital should assign a designated, trained representative to the affected department(s) or unit discharge/exit point. This individual should be able to help provide in-house transportation information and real time guidance required to move patients to the appropriate *Refuge* or *Triage Areas* within the facility. This individual should maintain radio contact with the assigned representative within the facility (e.g. Emergency Operations Center (EOC) via Logistics Chief) and relay information regarding departmental conditions and needs. They should be required to maintain contact with the EOC throughout the incident or until evacuation of the area is complete.

When the decision is made to activate the Mass Casualty/Trauma Protocol, the magnitude of the emergency response must be determined. For large scale events or total facility evacuation if it becomes necessary, the Liaison Officer (or the Incident Commander) should immediately notify:

Office of Emergency Management (Disaster Control Board)
(718) 442-8700
24/7 operations (If no answer, call 911)

NYC Hospital's EOC should coordinate w/OEM and other local agencies to establish, as needed, inner and outer perimeters.

Emergency Medical Services (EMS)
Operations (718) 999-2770
24/7 contact City Wide (718) 422-7396 or (718) 422-7398

EMS will then contact other area hospitals and collect information as to ED census, number of beds available, and the number and type of patients other hospitals can accept. The following contacts are for reference only. EMS will make the initial contact.

Health and Hospitals Corporation – Director of Operations	(212) 788-3663
Greater New York Hospital Association	(212) 246-7100
NYS DOH Regional Office	(212) 417-5915

4. TRIAGE PROTOCOL

The *Triage Commander* or other appropriate representative should select a Decon team based upon available personnel consisting of :

- 1-2 EM physicians
- 1-2 ED nurses
- 1-2 Patient Care Technicians
- 1-2 Security Officers

The *Triage Commander* or other appropriate representative should attempt to determine the nature of the external event and requirements for level of Personal Protective Equipment (PPE) before sending the Decon Team to the Decon area.

If PPE is indicated, the Decon Team should first don PPE appropriate for the nature of the event and type of casualties expected before any decontamination is performed. **Patients requiring decontamination may not be brought into the hospital without decontamination under any circumstances, and may need to wait outside regardless of condition until the Decon staff/team is appropriately protected.**

Trauma Incident

- a. The Emergency Department should be re-organized to allow efficient use of stretchers.
- b. Each major trauma stretcher position should be manned by:
 - i. Two physicians (either EM or Surgical)
 - ii. Five nurses (either ED or Surgical)
 - iii. Anesthesia team should be present in major trauma area
 - iv. 2 Respiratory therapists should be present in major trauma area
- c. Each major trauma stretcher position should be equipped with:
 - i. One Mayo stand containing a basic tray
 - ii. One Mayo stand containing chest tube/intubating equipment
 - iii. IV pole containing 4 prepared 1-liter bags of RL ready for infusion
- d. Each intermediate and minor trauma stretcher position should be manned by:
 - i. One physician (either EM or Surgery)
 - ii. One nurse (either ED or Surgical)

Triage should most likely be conducted at the ambulance entrance to the ED by the *Triage Commander* and other personnel designated by the *Treatment Area Supervisor*. Patients should be triaged and tagged with color-coded disaster triage tags, using the START system. SIMPLE TRIAGE AND RAPID TREATMENT (START) and JumpSTART

The START system should be used by the *Triage Team* for adult patients in a mass casualty incident. The JumpSTART system should be used for pediatric patients.

In a Mass Casualty Event there are four major groups that must be recognized and labeled accordingly.

TRIAGE CATEGORIES:

- **“Green” or minimal - Walking wounded**
- **“Yellow” or delayed – Significant injury**
- **“Red” or immediate – Life-threatening injury**
- **“Black” or expectant - Non-salvageable/DOA**

START

Triage should take no longer than 1 minute per patient and should focus on three primary areas:

- Respiratory status
- Perfusion and pulse
- Neurological status.

As the responder moves through each level of assessment, any condition that is deemed **Red/immediate** stops the evaluation process. The patient should be tagged, and the responder should move on to the next patient.

CHILDREN

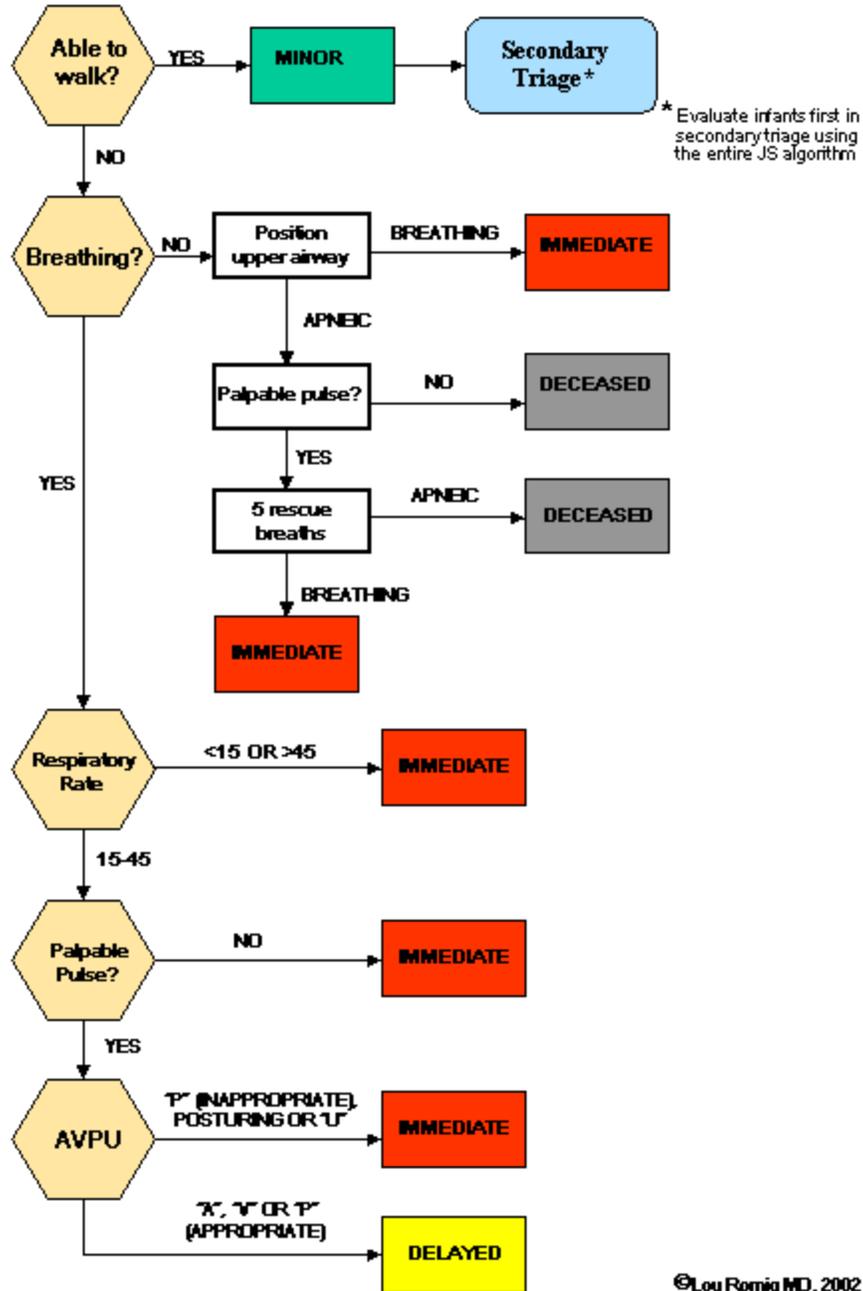
JumpSTART

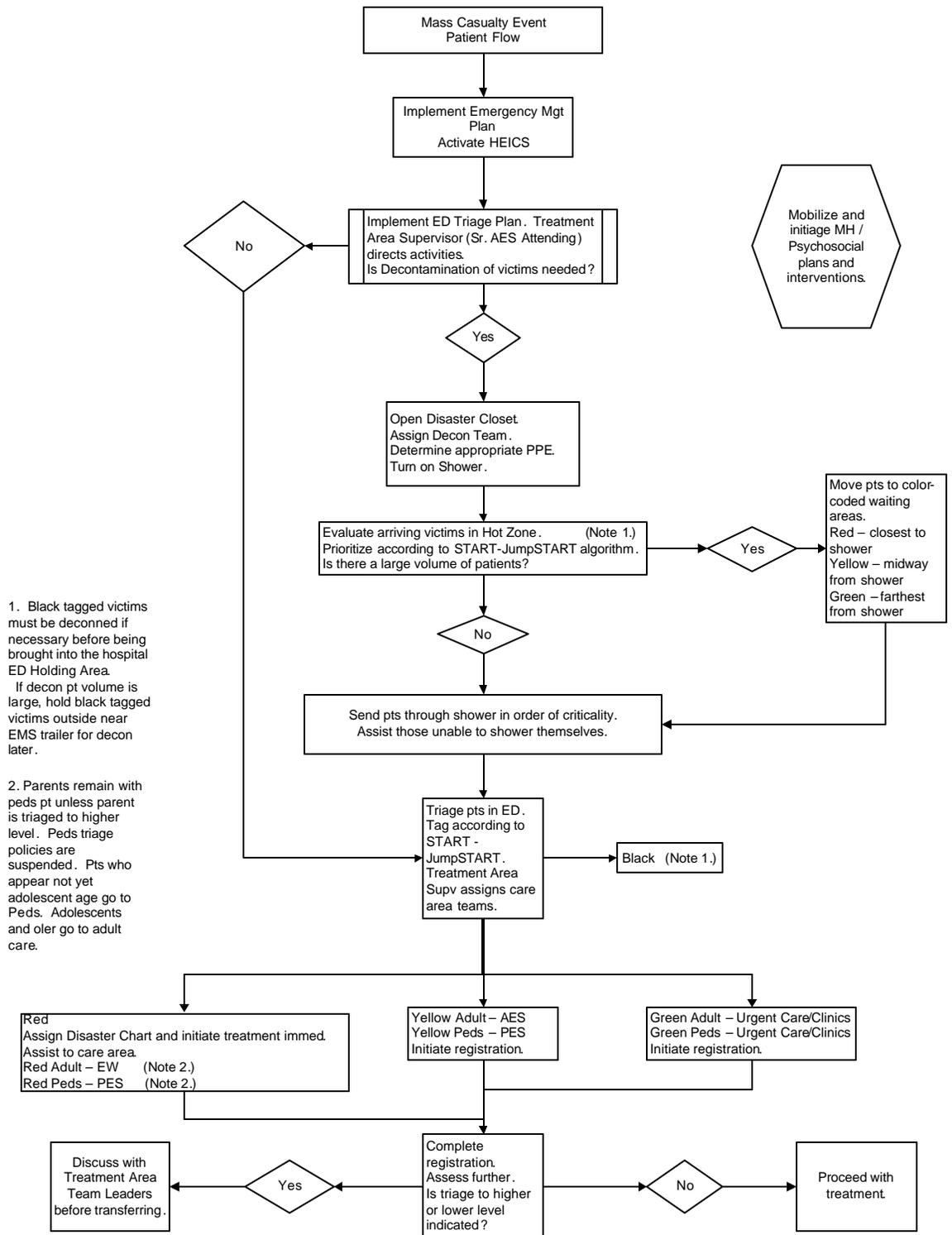
This is a modification of the START system designed for pediatric patients. Use JumpSTART if the patient appears to be a child; use START if the patient appears to be a young adult.

For children who are unable to walk due to age/developmental status or chronic physical disability, perform JumpSTART triage. If the patient meets "yellow" criteria, examine for significant external signs of injury, such as penetrating wound, uncontrollable bleeding, burns or complex wounds. If present, triage the child as a "yellow". If such signs are absent, triage the child as "green".

Children should not to be separated from their caregivers unless their caregiver is significantly injured, and cannot respond to the child.

JumpSTART Pediatric MCI Triage®





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(2004)

Overflow of Casualties

If the number of casualties arriving exceeds the ED's capacity to handle them, these patients should be diverted to necessary Alternate Care Sites (See section 8. pg.10) that have been designated for the facility.

5. GENERAL RESPONSIBILITIES

The *Incident Commander* or representative assigned for an incident should retain the full authority and remain responsible for the decision-making process until relieved by a more senior ranking official. Responsibilities for specific departments are summarized below.

A. ALL HOSPITAL EMPLOYEES

If a disaster occurs in a patient care area, or threatens a patient care area, employees should remove patients who are in immediate danger.

Patients should not be left unattended. It should be ensured that a hospital staff member assumes responsibility for patients under their care before they leave to report to pre-assigned disaster response assignments. For example, appropriate hand-off must be conducted before leaving any patient.

B. SECURITY DEPARTMENT

All members of a hospital's Security Department should immediately communicate with their department for a head count and to receive emergency orders. Communication should be done by radio or telephone. They should be prepared to perform a variety of duties including but not limited to:

- Ensure that an officer is dispatched to the front entrance of the hospital to meet the emergency responders and direct them to the scene of the problem.
- Ensure that officers are dispatched as needed to direct entrances/exits and activate lock down procedures for the facility.
- Security officers should follow their Security Emergency Operations Procedures Manual.
- Security staff, using radios or an alternate communications system, should be located at exit(s) of patient care units to ensure that all patients, visitors and staff are accounted for.

C. LABOR POOL

A representative should contact the facility's Emergency Operations Center (EOC). Normal visiting hours should be suspended during the disaster situation. It is anticipated that a significant number of people will most likely volunteer their help during an emergency, including family members, visitors and nearby residents. The *Human Services* department or *Planning Officer* at the facility should help manage this influx and assign personnel to register these volunteers and assign them to a specific Staging Area. They should be prepared to perform a variety of duties including but not limited to:

- Report to the *Planning Officer* or other representative assigned at the hospital for a head count and to receive emergency assignments.
- Manage and establish the control centers and staging areas for volunteers, patient families/visitors and medical students.

- Record volunteers level of fitness, as they may be needed to transport patients up & down stairs.
- Ensure that responsible personnel are assigned to stay with relatives of victims in the hospital waiting area and provide the EOC with the names of family members and volunteers that are in the facility.
- All volunteers should sign-in at the facility and should provide their full name, contact information, credentials, and list any special talents - especially knowledge of another language.

D. BUILDING SERVICES

Building Services or other maintenance personnel should report to the leadership of their assigned work unit. They should be prepared to perform a variety of duties including but not limited to:

- Help move patients, and assist as directed by the unit leadership
- Maintain staffing of elevators and coordinate support from Security as needed
- Ensure that hallways or traffic areas are clear of carts and equipment and be responsible for setting up extra beds if needed.
- Transport storeroom supplies and bring in resources from other areas of the facility as requested.
- Perform other duties as requested or redeploy to provide labor resources as needed

E. FACILITIES MANAGEMENT

The *Facility Department* or other assigned representative at the facility should be prepared to perform a variety of duties including but not limited to:

- Maintain and control functioning of all available elevators, ventilation equipment and emergency generators.
- Be available to set up extra beds in hospital if needed.
- Stand by to ensure shutdown of gas valves, heating, air conditioning and other facility equipment as appropriate
- Stand by to adjust and control airflow and heating, ventilation and air conditioning (HVAC)

6. TRANSPORTATION TAGGING AND IDENTIFICATION

A Tagging System can be useful to track patients who require evacuation from the facility or who are being transferred to another facility. Physicians and Nursing staff at the facility should be responsible for patient assessment/triage, and they should be able to dictate the mode of transportation based on acuity and care needs.

Conditions permitting, the assessment/triage process and transportation tag completion should be completed prior to movement of patient from hospital. The tags should be updated and referred to during triage and transportation to the areas of refuge and possibly other healthcare facilities.

Patient Access or other designated representative at the facility should be responsible for:

- Maintaining a supply of the tags
- Coordinating the distribution of tags during an event
- Tracking patients who enter the facility and are being transported to other locations.

7. TRANSPORTATION RESOURCES

Transportation needs should be assessed and appropriate types of vehicles (ambulance, ambulette, van, etc.) will be determined. The *Transportation Officer* or other assigned representative should coordinate travel arrangements through contracted vendors.

Transportation requirements for large numbers of patients, medical supplies and equipment are difficult. In addition, available relocation sites with the necessary advanced life support equipment and emergency medical facilities tend to be scarce. Any Contracts the facility may have with transportation resources/services should be reviewed and renewed on a regular basis.

Additional transportation resources can be accessed via contact with the NYC Office of Emergency Management (NYC OEM). NYC EMS may or may not be able to provide additional transportation resources during an event based on the nature of the event and its effect on citywide resources.

The need for activation of EMS mutual aid agreements between NYC and surrounding EMS agencies (located in NJ, CT, PA) such as commercial and volunteer agencies may be required to augment the EMS and transportation resources available to the facility and others during an event.

8. ALTERNATE CARE SITES

A list of hospital affiliations should be kept and made available during an event. The Centers for Bioterrorism Preparedness Planning (CBPP) has a number of affiliated hospitals they can reach out to during an event. The CBPP affiliated hospitals consist of NYU Hospitals Center, the Manhattan VA Hospital, and Bellevue Hospitals as core hospitals. Additional Strategic Partners of the CBPP include: Coler/Goldwater Hospital, Gouverneur Hospital, Hospital for Joint Diseases, Woodhull Hospital, and the Brooklyn and Queens VA Hospitals.

Through the CBPP initiative, there is currently a memorandum of agreement amongst the hospitals to serve as alternate care sites for each other if the need arises. Examples of such needs include but are not limited to: surge capacity, decontamination, and special populations. This memorandum of agreement is part of an ongoing project with the NYC Department of Health and Mental Hygiene (NYC DOHMH) and Health Resources and Services Administration (HRSA). It may be useful for a facility to create Memorandums of Understanding (MOUs) with surrounding hospitals in their area if they have not already done so.

9. CREDENTIALING PRACTITIONERS

Credentialing policies should be developed with partnering institutions to detail each individual hospital facility's procedure for granting clinical privileges and assigning responsibility to licensed practitioners in response to a disaster. These protocols should be designed to permit extension of hospital privileges to qualified health care workers.

The following is a sample credentialing policy:

Participating Hospitals

Name of Hospital: _____

Name of Designated Representative: _____

Title of Designated Representative: _____

Contact Number of Designated Representative: _____

E-Mail of Designated Representative: _____

Name of Back-Up Individual: _____

Title of Back-Up Individual: _____

Contact Number of Back-Up Individual: _____

E-Mail of Back-Up Individual: _____

Name of Hospital: _____

Name of Designated Representative: _____

Title of Designated Representative: _____

Contact Number of Designated Representative: _____

E-Mail of Designated Representative: _____

Name of Back-Up Individual: _____

Title of Back-Up Individual: _____

Contact Number of Back-Up Individual: _____

E-Mail of Back-Up Individual: _____

Name of Hospital: _____

Name of Designated Representative: _____

Title of Designated Representative: _____

Contact Number of Designated Representative: _____

E-Mail of Designated Representative: _____

Name of Back-Up Individual: _____

Title of Back-Up Individual: _____

Contact Number of Back-Up Individual: _____

E-Mail of Back-Up Individual: _____

10. CRISIS RESOURCE CENTERS

Establishing crisis resource centers for employees, patients/public, and in each of the core institutions is an important part of disaster preparedness. These designated areas should be equipped with communication devices such as Internet, radio, telephones, etc. to allow employees and victims to contact family members as well as to facilitate contact with outpatient referral centers to allow disposition of uninjured patients seeking follow-up counseling, shelter, therapy, etc. The CBPP have been developing site-specific centers that will accommodate the large numbers of patients resulting from a large-scale mass casualty event, and where the victim's family can receive one-on-one counseling and their questions can be answered by social work staff and/or psychosocial reserve teams at each hospital.

These centers can also potentially increase bed availability by moving patients to non-medical care areas of the hospitals and thus increase hospitals surge capacity to receive a greater number of injured patients.

11. MEMORANDUMS OF UNDERSTANDING

Memorandums of Understanding (MOU) between hospitals are another important component of disaster preparedness planning. It is acknowledged that another hospital may from time to time lack the staff to optimally meet the needs of patients due to the occurrence of a disaster; and that MOUs should be developed prior to a sudden and immediate disaster, to coordinate the sharing of personnel and/or medical supplies in the event of a disaster. The intent of these Agreements during a disaster should be to provide access, to the greatest extent possible, to emergent health and psychosocial services so as to support the patients' ability to achieve wellness and adhere to treatment regimens and to facilitate the continuity of care.

Identification of Designated Representative

Designated Representatives and at least one back-up individual should be identified to communicate with the other hospitals prior to and in the event of a Disaster.

Lending of Personnel/Supplies

An agreement should be made to use its best efforts to make personnel and medical supplies available to the other hospitals in the event of a disaster, upon request. The lending hospital should be entitled to use its own reasonable judgment regarding the staff and equipment it can provide without adversely affecting its own ability to provide services. Suggested supplies subject to this agreement could include but are not limited to:

- Medical / Surgical Supplies
- Medical Equipment
- Pharmaceuticals
- Laboratory services
- Food and nutritional supplies
- Vehicles / Transportation
- Housing accommodations for staff
- Decontamination facilities and equipment
- PPE
- Linens

Communication of Request for Personnel/Supplies

Initially, after a disaster has occurred, the borrowing hospital's *Designated Representative* can verbally request services from the lending hospital's Designated Representative. **The request later should be confirmed in writing and, ideally, should occur *prior* to the arrival of personnel or supplies at the borrowing hospital.** The borrowing hospital should identify for the lending hospital the following:

- a. The type and quantity of supplies requested;
- b. the type and number of requested personnel;
- c. an estimate of how quickly the request is needed;
- d. the location where the personnel are to report/the supplies are to be delivered

Response to Request for Personnel

In response to the request, the *Designated Representative* of the lending Hospital should provide the borrowing hospital with the following information for the personnel that the lending hospital is able to send: the name, employment status, licensure, training, and the specialties in which the personnel are credentialed.

Documentation of Personnel

The arriving personnel should be required to present their lending hospital identification badge at the site designated by the borrowing hospital's *Designated Representative*. The borrowing hospital should be responsible for the following:

- a. meeting the arriving personnel (usually by the recipient hospital's security department or designated employee);
- b. confirming the personnel's identification card with the list of personnel provided by the lending Hospital
- c. providing additional identification, e.g., "visiting personnel" badge, to the arriving donated personnel.

Responsibility for Personnel

An agreement should be made that the personnel made available to the borrowing hospital shall be totally under the supervision and control of the borrowing Hospital while performing any actions in response to the borrowing hospital's request for personnel.

Recall of Staff

The lending hospital should be able to recall its personnel at any time in its sole discretion. If feasible, adequate notice should be provided to allow the borrowing hospital to arrange staffing from other facilities or agencies.

12. REFERENCES

Bellevue Hospital Center

1. Mass Casualty Triage Plan

New York University Medical Center

2. NYU Medical Center Trauma Disaster Plan
3. NYU Hospitals Center Evacuation Plan

Department Veterans Affairs New York Healthcare System

4. Mass Casualty Triage Plan