KINGS COUNTY HOSPITAL
DEPARTMENT OF SURGERY

DEPARTMENTAL DISASTER PLAN

I. PURPOSE The purpose of this plan is several-fold:

1. To facilitate a coordinated and graded response by the members of the Department of Surgery (DOS) to emergency (disaster) situations. The specific response is graded based on the anticipated number of casualties.

2. To educate clinicians and support staff of both the hospital and the DOS as to the organizational plan of the Department in the event of a disaster.

3. To provide a single source of contact names and numbers to mobilize large numbers of Surgery Department personnel.

4. To define the roles and job responsibilities for key personnel within the Surgery Department during a disaster using the format outlined by the "Hospital Emergency Incident Command System (HEICS)".

II. SCOPE

The Department of Surgery's Departmental Disaster Plan is a subsection of the larger hospital-wide disaster plan outlined in the Environment of Care Manual (Safety Manuel). The Surgery Department Disaster Plan outlines the procedures to be followed by members of the Department of Surgery whenever the hospital-wide plan is activated. Thus, the Departmental Plan includes all the instructions and procedures described in the hospital-wide plan in addition to those described in the Surgery Department Subsection. The Department Plan is coordinated with the hospital-wide Incident Command System and coordinated with the plans from the Emergency Department and the Anesthesia Department.

The plan is meant to be flexible and may be expanded or scaled back to meet the particular needs of a specific crisis. An external disaster or mass casualty incident (MCI) may require varying degrees of disaster response from surgical personnel. In order not to over utilize or under utilize surgical resources we have defined 3 levels of the surgical disaster response based on the number of anticipated casualties. A Level I or Level II response will be initiated when the Hospital-wide Disaster Plan is

activated at the Kings County Hospital Center. A Level III response will be initiated by the Surgery Department when the numbers of anticipated casualties result in the activation of the Hospital-wide Disaster Plans at both the Kings County Hospital Center and the University Hospital of Brooklyn (Downstate Medical Center). The description of these tiered responses is outlined in the section "Definitions and Levels of Disaster Response".

III. ACTIVATION

The Surgery Department Disaster Plan will be activated by the Chairman of the Department (or designee) once notified by the appropriate authorities. The initiation of a Level I or II surgical response may begin through the Chief of Surgery at Kings County Hospital, the In-House Trauma Attending or Chief Resident, the On-Call Surgical Attending, or some other order depending on the day and time of the event. Elevation to a full surgical disaster response (i.e., Level III Response) however, will be at the discretion of the Hospital Incident Commander with input from the Department Chairman or the individual serving in the role of the Surgical Services Unit Leader.

IV. AUTHORITY TO DECARE A DISASTER

1. All internal disasters will be declared by the Senior Administrator on site.

2. All External disasters will also be declared by the senior administrator on site. However, in the event that the C-1 Attending in the Adult Emergency Department is unable to immediately confer with the senior Administrator on Site, the C-1 Attending may declare the disaster. This will occur only in the event that the number of casualties presenting to the Emergency Department overwhelm its resources.

3. In the event of an isolated pediatric disaster, the Attending in the Pediatric Emergency Department will contact the Senior Administrator on site and the C-1 Attending. The C-1 Attending will redistribute staff and resources as needed. The C-1 Attending may then declare a disaster if warranted.

V. NOTIFICATION

1. Disaster Page Operator (x3145): Upon being notified of the disaster by the senior administrator on site or the C-1 Attending, the disaster page operator will contact the Management/Head of the following Departments on the Emergency Disaster Beeper list: Trauma (trauma code beeper and the Co-Directors), Hospital Police, Nursing, Respiratory Therapy, the

Administrator on Duty, the Executive Director, Occupational Health and Safety, Medical Directors of the Adult and Pediatric Emergency Departments, ED Associate Director, Radiology, Diagnostic Services, Food Services, Facilities and Management, Admitting, Materials Management, Environmental Services, the Telecommunications Administrator, MIS, Patient Relations, and Media Relations. The individuals above will be paged to 2*2*2*2*, a number which will be recognized as indicating that a disaster has been declared. Immediate contact with the Incident Command Center will then be required. The Managers/Heads of these Departments will also initiate their respective departmental call-down lists as needed or instructed by the Incident Command Center.

2. Disaster Bells and Overhead Page: The Disaster Page Operator will also activate the alarm bells, four sets of 2 rings (2*2*2*2) and overhead page a "Yellow Alert" immediately upon notification.

3. Notification of the Department of Surgery Personnel: Notification of surgical personnel will begin with the notification of the "In-house" On-call Trauma Surgery Attending and the "In-house" On-call resident team via the Trauma code beeper. The Co-Directors of the Trauma Service and the Chief of Surgery will be simultaneously notified through the institution's Disaster Beeper call-down list. The In-House Trauma Attending and the Co-Directors of the Trauma Surgery Service will initiate the Surgery Department Call-down list as outlined in Table 1 according to the Level of surgical response required.

4. **All** surgical and other hospital personnel are to enter the Kings County Hospital Building from the **SIDE** entrance of "A" Building (i.e. the door facing "T" Building and the staff parking lot). Staff should be reminded of this when contacted during the call-down process.

VI. DEFINITIONS AND LEVELS OF DISASTER RESPONSE

Level I Surgical Response: A Level I response is a limited response and will be utilized for circumstances in which the number of casualties are expected to range from 5 to 10 major trauma victims presenting over a one to two hour period. Examples of situations requiring a Level I response include notification of a bus accident, house fire, construction site collapse, etc. Undermost circumstances a Level I surgical response can be handled by the "on-call" trauma team utilizing the team's usual day to day back-up mechanisms.

In such circumstances, Emergency Medical Services notifies the C-1 Emergency Medicine Attending On-Call of the event and provides an estimation of the anticipated number of casualties. The On-call Trauma Surgery Attending along with the on-call trauma surgery team will be notified directly by the C-1 Attending. The Trauma Surgery Attending will assess the situation and initiate

the Level I Surgical response as outlined in Table 2. If the on-call trauma attending believes that at the time of initial assessment or some later time that the casualties exceed the services outlined in the Level I response he/she may escalate the response to a Level II (or Level III) response.

Level II Response: A Level II surgical response will be utilized for circumstances in which the numbers of anticipated casualties are expected to range between 10 and 30 major trauma victims. Circumstances that might require a Level II response include a small building fire or explosion, multi-vehicle collisions, a nightclub shooting, etc. If at anytime during the Level II response the Surgical Service Unit Leader hears of additional incoming casualties or feels that the surgical services are overwhelmed he/she can escalate the response to a Level III. The Level II response is outlined in Table 3.

Level III Response: A Level III response will be utilized for circumstances in which the numbers of casualties are expected to exceed 30 critically injured or burn patients requiring activation of the hospital-wide disaster plans for both Kings County Hospital and The University Hospital of Brooklyn. Notification of such incidents will usually come from the NYC Office of Emergency Management (NYC-OEM) to initiate a multi-hospital or borough-wide disaster response. Alternatively, the KCH Incident Commander, the KCH Surgical Service Unit Leader, and/or the Surgical Chairman may elevate a Level II response to a Level III response if at anytime the surgical resources are felt to be overwhelmed at the Kings County Hospital Center. The Level III response is outlined in Table 4.

VII. SURGERY DEPARTMENT COMMAND CENTER

A Surgical Command Center will be set up during the activation of a Level II or Level III surgical disaster response. The Surgical Command Center will provide a central location for members of the Surgery Department and Surgical Subspecialties (attendings, residents, medical students and support staff) to meet, to obtain updates and assignments, and to communicate information and needs directly to the Surgical Service Unit Leader. The Surgery Command Center(s) will serve as the staging area for the establishment of operative teams (attending surgeons, surgical housestaff, and/or medical students) and for assignment of staff to other non-operative surgical responsibilities. Responsibilities will be assigned at the discretion of the Surgical Commander based on his/her communications between the Incident Commander, Medical Director, Trauma Co-Directors, and other Unit Leaders. The Surgical Service Unit Leader will also be responsible for assigning shifts and sleep/rest periods in the event that a sustained response is anticipated.

The Kings County Hospital Surgery Command Center (KCH-SCC) will be in Room B4202 which is the Surgery Conference Room located on the 4th Floor of the B Building. The phone number to the KCH-SCC **is (718) 245-5494.** The KCH-SCC will be utilized for a Level II and III response.

The State University Hospital (Downstate) Surgery Command Center will be in Room B8343 which is the Surgery Department Library located on the 8th floor of the hospital building. The phone number for the Downstate-SCC is (718) 270-3325. The Downstate-SCC will be utilized in addition to the KCH-SCC when a Level III surgical disaster response is needed.

NOTE: Guidelines for predicting Surgical/Trauma Capacity are provided for the Surgical Services Unit Leader in the appendix section of this plan.

IX. ORGANIZATIONAL CHARTS AND JOB ACTIONS SHEETS

The Organizational Chart for the Surgery Department Disaster response is outlined in Table IA and IB. Each position on the organizational chart has a specific mission or function to address during a disaster. More than one position may be assigned to one individual to perform as necessary until additional personnel are available. Similarly, more than one individual may be assigned to one or more positions depending on the number of anticipated casualties or, to expedite the activation of the response. In the event that a sustained response will be required, new individuals will be substituted into these positions. The names of these positions were chosen to reflect the role or function of the individual assigned to each position rather than specific titles of individuals within the department so that an organized activation of the plan is independent of the availability of anyone or more individuals within the department.

Each position represented on the organizational chart has a job description in the form of a checklist (job action sheet). The Job action sheets are designed to direct the assigned individual as to their specific mission, responsibilities and tasks. The tasks are prioritized according to those that require immediate, intermediate, and extended attention. The Job Action Sheets are located in the "Job Action Sheets" section of this manual. Extra Job Action Sheets are kept on file in the Departmental Office and in the Trauma Surgery Office.

VIII. SECONDARY TRIAGE UNIT

In the event of a MCI in which the number of anticipated casualties in the first 2 to 3 hours is greater than 25 severely injured or critical patients it will be **essential** to maintain a **unidirectional flow** of patients. There will be some patients who will have an obvious and immediate disposition shortly after arrival to the ED (ie operating room, angio suite, morgue,) however, the vast majority of severely injured patients will require

various levels of diagnostic testing to determine their appropriate disposition. Once patients leave the emergency room additional casualties will prevent their return to the emergency department! In such cases, the patient will need to be brought to a **secondary triage unit** with monitoring capabilities until the results of their test(s) can be assessed to determine what if any further intervention is needed. A "staging team" will be delegated to "staff" that area by the Surgical Services Unit Leader. The "staging team" will complete the patients workup and determine the next or final disposition of the patient (i.e. ward, OR, Angio suite, ICU)

The Secondary Triage Unit will be set up in the Ambulatory Surgery Suite located on the second floor of "C" Building **Room C2106** when required. The Phone number for the Secondary Triage Unit is **245-3581**.

VIII. FORMS

Supplemental forms are located in the "FORMS" section of this manual and include the following:

1. Call Down Response Form
2. HEICS Patient Tracking Sheet

IX. TESTING

This plan will be tested periodically during both working hours and weekends. Debriefing, after a test or actual disaster, should occur within 24 hours in order to optimize event recollection. Revisions to the plan may be made based on recommendations elicited during these debriefing sessions. At the completion of any disaster scenario or disaster drill all forms and job action sheets that are taken from the Surgery Department Manual must be replaced. This will be the responsibility of the Surgery Department Administrator (or designee) and should be confirmed during the debriefing session.

Table II.

SURGERY DEPARTMENT LEVEL I RESPONSE

Definition: A Level I response is a partial disaster response and will be activated by the surgery department for multiple casualty incidents when the anticipated number of casualties are expected to be in the range of only 5 to 10 major trauma victims presenting over a limited time period of one to two hours. Under the circumstances it is anticipated that the limited number of critically injured patients can be managed by the trauma on-call team with the assistance of the on-call backup attending (trauma or general surgery attending), the Trauma/SICU Co-directors, and the back-up general surgery/pediatric residents on-call. If any of the individuals listed above are not available, the on-call trauma attending will select the required number of attending and resident staff from the departmental call-down list. If subspecialty services required, the on-call trauma team will notify the on-call members of that service using the usual day-to-day on-call list.

Procedure:

Upon notification, the On-call Trauma Team will report immediately to the C-1 Area of the Emergency Department.

After assessing the situation, the On-call Trauma Attending will designate one member of the team to contact the following:

Department Chairman	(Dr. Zenilman)	(notify)
Chief of Surgery	(Dr Reilly)	(notify)
On-call General Surgery Attending	(see call schedule)	(respond to ED)
Back-up Trauma Attending	(see call schedule)	(respond to ED)
Co-Directors of Trauma / SICU	(Drs Kurtz and O'Neill)	(respond to ED)
Back-up Surgery Chief Resident	(see call schedule)	(respond to ED)
Back-up Surgical Resident Team	(see call schedule)	(respond to ED)

Note: The monthly surgery call schedule has the names and beeper numbers for the above individuals. The call schedule is posted in the ED, Trauma Surgery Office, and with the hospital page operator. Additional contact numbers are also listed for these individuals on the Surgery Department "Call Down" List located in the Surgery Department Disaster Manual. Copies of the Surgery Department Disaster Manual are located in the Trauma Surgery Office and the Surgery Department Office. The Trauma on-call attending has access to the Trauma Surgery Office.

Elevation to a Level II Response: If at anytime the On-call trauma attending, Co-directors, or C-1 Emergency Department Attending feels that the need for Surgical Services exceeds that of a Level I response the response will be elevated to a Level II response. One member of the team will be designated to notify the Departmental Chairman and Chief of Surgery of the change in status and instruct them to come into the hospital. In addition, that individual will also contact the individuals identified as

"critical" personnel on the contact list. These individuals are outlined in the "Phase 1" section of the Level II response described in Table III. The contact numbers for these individuals are located on the Departmental "Call Down" List. The "critical" personnel will be instructed to respond to the hospital immediately and they will be responsible for setting up the Surgical Command Center(s) upon their arrival. The process will continue as outlined for a Level II response in Table III.

TABLE III.

SURGERY DEPARTMENT LEVEL II RESPONSE

Definition: A Level II response is a full disaster response by the Surgery Department and will be utilized for circumstances in which the anticipated casualties are expected to range from10 to 30 major trauma victims from a MCI.

Initiation of the Level II Response:

Phase 1: Upon notification, the On-call Trauma Team will report immediately to the C-1 Area of the Emergency Department and receive debriefing from the Disaster Medical Officer (ED Attending).

After assessing the situation, the On-call Trauma Attending will designate one member of the team to go to the Trauma Surgery office or Department Surgery Office and refer to the Departmental Disaster Manual. That individual will be responsible for notifying the following "critical" personnel:

Department Chairman	(Dr. Zenilman)	(respond to SCC)
Chief of Surgery	(Dr Reilly)	(respond to SCC)
On-call General Surgery Attending	(see call schedule)	(respond to SCC)
Back-up Trauma Attending	(see call schedule)	(respond to SCC)
Co-Directors of Trauma / SICU	(Drs Kurtz and O'Neill)	(respond to ED)
Back-up Surgery Chief Resident	(see call schedule)	(respond to ED)
Back-up Surgical Resident Team	(see call schedule)	(respond to ED)
Trauma Nurse Coordinator	(Ellen Griffen, RN)	(respond to SCC)
Surgery Department Administrator	(Claudette Webb)	(respond to SCC)

The contact numbers for these individuals are located on the Department of Surgery "Call-Down List".

Phase 2: The first attending surgeon to arrive to the 4th floor conference room will serve as the Surgical Service Unit Leader until the arrival of the Department Chair or the Chief of Service. The Job Action Sheet for the Surgical Service Unit Leader is located in the Disaster Manual under the appropriately labeled section.

The Surgical Service Unit Leader will assign individuals to the roles designated in the organizational chart and dispense the appropriate Job Action Sheet to those individuals. The Surgical Service Unit Leader will determine which individuals on the department call-down list are to be contacted by the "call down personnel" for additional staffing.

All additional surgery staff will be instructed to report **directly** to the Surgical Service Unit Leader at the SCC for job assignments in order to expedite an orderly and productive response. **DO NOT** report directly to the ED unless you are one of the few individuals so designated in the above list!

TABLE IV.

SURGERY DEPARTMENT LEVEL III RESPONSE

Definition: A Level III response will be utilized for circumstances in which the numbers of casualties are expected to exceed 30 critically injured or burn patients requiring activation of the hospital-wide disaster plans for both Kings County Hospital and The University Hospital of Brooklyn.

Initiation of the Level III Response:

Phase 1: Upon notification, the On-call Trauma Team will report immediately to the C-1 Area of the Emergency Department and receive debriefing from the Disaster Medical Officer (ED Attending).

After assessing the situation, the On-call Trauma Attending will designate one member of the team to go to the Trauma Surgery Office or Department of Surgery Office and refer to the Departmental Disaster Manual. That individual will be responsible for notifying the following "critical" personnel:

Department Chairman	(Dr. Zenilman)	(respond to SCC -Downstate)
Chief of Surgery	(Dr Reilly)	(respond to SCC- KCH)
On-call GS Attending	(see call schedule)	(respond to SCC- KCH)
Back-up Trauma Attending	(see call schedule)	(respond to SCC- KCH)
Co-Directors of Trauma / SICU	(Drs Kurtz and O'Neill)	(respond to ED- KCH)
Back-up Surgery Chief Resident	(see call schedule)	(respond to ED- KCH)
Back-up Surgical Resident Team	(see call schedule)	(respond to ED- KCH)
Trauma Nurse Coordinator	(Ellen Griffen, RN)	(respond to SCC- KCH)
Surgery Department Administrator	(Claudette Webb)	(respond to SCC- KCH)
On-call GS Attending Downstate	(see call schedule)	(respond to ED-Downstate)
On-call Vasc Attending Downstate	(see call schedule)	(respond to ED-Downstate)
Chief of CT Surgery	(Dr. Lowry)	(respond to SCC-Downstate)
Surgery Department Administrator	(Dawn Torres)	(respond to SCC-Downstate)

The contact numbers for these individuals are located on the Department of Surgery "Call-Down List".

Phase 2: The first attending surgeon to arrive at each of the SCC's will serve as the Surgical Service Unit Leader at that institution until the arrival of the Department Chair and/or the Chief of Service. The Job Action Sheet for the Surgical Service Unit Leader is located in the Disaster Manual under the appropriately labeled section.

The Surgical Service Unit Leaders from each of the two institutions will be in direct and continuous contact with each other and with the Incident Commanders for their respective institutions. They will assign individuals to the roles designated in the organizational chart at one or the other institution and dispense the appropriate Job Action Sheet to those individuals according to the immediate staffing needs of the two

institutions. One of their first responsibilities will be to assign "call-down" personnel to take over the responsibility of contacting the remainder of the individuals needed for the response.

All individuals on the department call-down list will need to be contacted by the "call down personnel" during a Level III response to inform them of the disaster. The two Surgical Service Unit Leaders will assign individuals from the call-down list to report to one of the two hospitals based on the immediate needs of each institution. Individuals within the department who are not needed immediately will be told to remain on "stand-by" until further notice.

All surgery staff will be instructed to report **directly** to the Surgical Service Unit Leader upon arrival to their assigned hospital for job assignments in order to expedite an orderly and productive response. **DO NOT** report directly to the ED unless you are one of the few individuals so designated in the above list!

It should be anticipated that the nature and number of casualties that require a Level III surgical response will likely require a sustained surgical presence for several days in order to address multiple injuries appropriately. The Surgical Service Unit Leaders, faculty, and support staff should be cognizant of this from the beginning and plan accordingly.

Phase 3: Once the initial responders have arrived, the Surgical Services Unit Leaders will continue ongoing reassessments of staffing needs. This phase will include coordination with the other surgical services subspecialties, anesthesia, critical care and other medical services. The Surgical Services Unit Leaders will begin to prepare for a sustained response and delegate assigned designated rest and work periods for all personnel including themselves. If additional resources and staffing are still needed these needs must be communicated to the Institutional Incident Commander. Additional resources from outside sources will usually become available within 24 hours (New York City and/or State) to 48 hours (Federal) depending on the nature of the Mass Casualty Incident.

APPENDIX I

GUIDELINES FOR PREDICTING SURGICAL/TRAUMA CAPACITY

It is possible to estimate initial casualty volume and pattern after a mass trauma based on information gleaned from past mass trauma events. This information can be used by the surgical leadership to estimate resource needs and staffing requirements during a mass casualty event. This information may also prove useful to help anticipate when surgical or other trauma related local resources may be overwhelmed.

The following are some general facts that may serve as guidelines:

1. Within 90 minutes following an event, 50 -80% of the acute casualties will likely arrive at the closest medical facilities.

2. Approximately 1/2 of all casualties will arrive at the hospital within a 1-hour window. This window begins when the first casualty arrives at the hospital.

3. Expect an "upside down" triage – the most severely injured arrive after the less injured who will bypass EMS triage and go directly to the closest hospital.

4. 1/3 of all acute casualties are critical (dead at scene, die at hospital, require emergency surgery, or require hospitalization)

5. 2/3 of acute casualties are treated and released from the emergency department.

6. On average, it takes 3-6 hours for casualties to be treated in the Emergency Department before they are admitted to the hospital or released.

7. To estimate the total number of casualties expected, double the number of casualties the hospital receives in the first hour.

8. The number of available operating rooms is the major factor in determining a hospital's capacity to care for critically injured casualties. When the number of predicted or actual casualties exceeds the number of operating rooms available, consider transferring or diverting additional critical casualties to other hospitals.

CAPACITY TO CARE FOR CRITICAL CASUALTIES ~ # of AVAILABLE OR ROOMS

9. The capacity of the radiology department is a major factor in determining a hospital's ability to provide timely care for non-critical casualties. The radiology department should be able to see approximately 6 patients per hour for each available x-ray machine.

Thus, the capacity to care for non-critical casualties should be proportional to the number of available x-ray machines multiplied by 6 patients per hour.

> CAPACITY FOR NON-CRITICALCASUALTIES /HR ~ (# OF XRAY MACHINES) X (6 PTS /HR)

(revised 7/03)