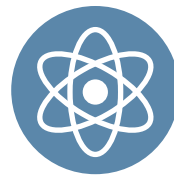


INTEGRATED EXPLOSIVE EVENT AND MASS CASUALTY EVENT RESPONSE PLAN TEMPLATE





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FLOW CHART FOR INTEGRATED EXPLOSIVE EVENT AND MASS CASUALTY EVENT

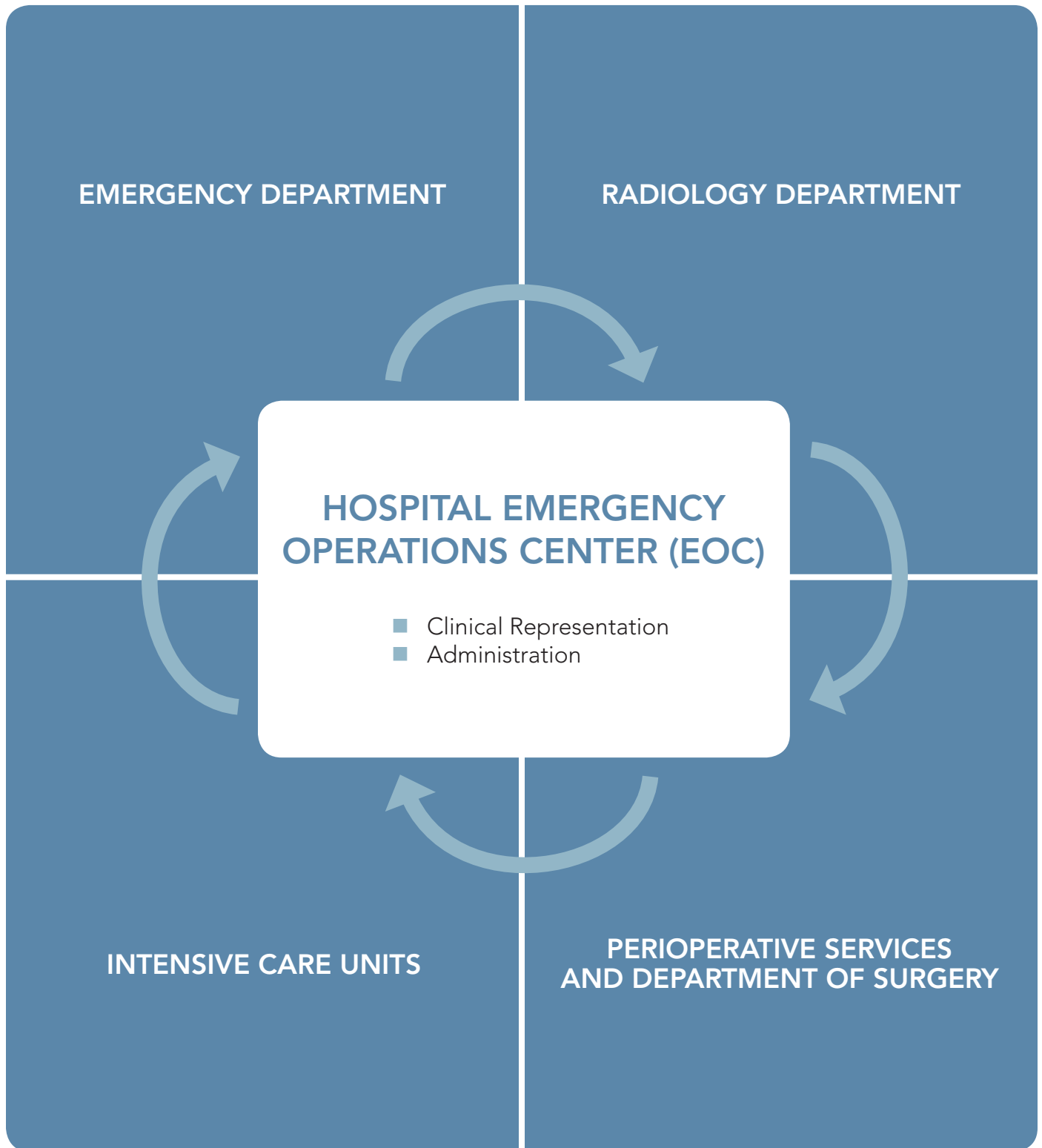


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INTRODUCTION

Because the risk of terrorist attacks and other mass casualty events remains high, hospitals must be prepared to optimally respond to a surge in patients with life- and limb-threatening injuries. On 9/11, as well as during explosive events in London, Madrid, Mumbai, and Israel, the closest hospitals were disproportionately affected, resulting in a surge of critically injured patients. This was not the case in Boston, where there was a highly unusual degree of preparedness and pre-deployment resources available as a result of standing ready for the Boston Marathon.

The Greater New York Hospital Association (GNYHA), in collaboration with the New York City Department of Health and Mental Hygiene (DOHMH) and GNYHA hospital members, have developed the following template plans to prepare hospitals in the New York region to respond to such events. GNYHA also worked collaboratively with its Critical Care–Emergency Preparedness Advisory Workgroup, including Robert Bristow, M.D., Medical Director of Emergency Management at NewYork–Presbyterian Hospital, who was instrumental in contextualizing hospital- and departmental-specific roles and responsibilities to prepare for and respond to an explosive or mass casualty event.

To ensure this level of preparedness, hospitals may consider developing or improving their departmental-specific preparedness plans and emergency operations plans (EOPs) so that a fully integrated response model of critical care delivery is quickly realized after a mass casualty event. These templates are not intended to be implemented as is, but rather as tools to help hospitals create customized integrated explosive event or mass casualty event clinical response plans that will synchronize and coordinate the activities of the Emergency Department, Radiology Department, Perioperative Services, Department of Surgery, and Critical Care Services (Department of Medicine and ICUs). A fully integrated clinical response will allow affected hospitals to quickly mobilize all available resources at the time of an incident to provide the highest standard of care to critically injured patients.

HOW TO USE THIS TEMPLATE

The Integrated Explosive Event and Mass Casualty Event Response Plan template identifies four clinical departments in your hospital that would have potentially important roles during a mass casualty event: Emergency Department, Radiology, Perioperative Services and the Department of Surgery, and Critical Care Services. Templates for each department comprise six domains to focus hospital planning efforts:

- **Notification and Communication:** Hospitals should review their policies and procedures to identify the notification and communication process within and among each of the four departments. Hospitals should also consider the communication process within the context of their Emergency Operations Center (EOC). Consider expanding your plan to include areas identified in the template that may not be addressed in your current hospital plan.
- **Departmental Command and Control:** To effectively organize affairs in the appropriate departments, consider the following activities for each department: establish a secure location within that department; identify a staff member or designee to take the lead; review your triage protocol; identify a process to secure and deploy resources as needed; and establish a process to continually assess the situation so that appropriate actions can take place.
- **Increase Capacity:** Hospitals should refer to their surge capacity plans and consider rapid patient discharge, as well as establishing alternate care sites.
- **Triage and Patient Throughput:** Hospitals should review their existing plans to ensure they have identified a triage leader in each department and consider a triage method as described in the template.
- **Staffing:** It is important to assign roles and responsibilities before an emergency. Hospitals should make sure that their plan identifies a staff member or designee and what their responsibilities are at any point during a 24-hour period.
- **Supplies:** Hospitals should review their plans and identify the additional supplies each department will need in the event of an emergency.

Hospitals should use this template in conjunction with their existing plans (e.g., staffing, internal communications, etc.) to organize their own resources within the hospital and specific clinical departments. By accomplishing this, hospitals will be able to provide the appropriate resources to the appropriate patients at the appropriate time, without compromising the standards of care. These templates will help hospitals create an integrated clinical response that will allow them to deliver the best possible care to critically injured patients after a mass casualty event.

EMERGENCY DEPARTMENT EXPLOSIVE AND MASS CASUALTY EVENT RESPONSE PLAN

SECTION GUIDE

12	<p>Notification and Communication</p> <ul style="list-style-type: none">■ Refer to your hospital emergency communication plan■ Senior leadership activates the EOC■ Continual communication with EOC■ Continual communication with other hospital departments (ICU, OR, and Radiology)
13	<p>Departmental Command and Control</p> <ul style="list-style-type: none">■ Secure location■ Staffing: Charge Physician, Trauma Surgeon, Critical Care Intensivist, Nurses, Radiology■ Establish triage protocol and location■ Emergency registration and tracking■ Secure and deploy resources■ Situational awareness
14	<p>Increase Capacity</p> <ul style="list-style-type: none">■ Rapid patient discharge■ Establish alternate care site
15	<p>Secondary Triage and Patient Throughput</p> <ul style="list-style-type: none">■ Establish secondary triage leader
15	<p>Staffing</p> <ul style="list-style-type: none">■ Enlist additional staff<ul style="list-style-type: none">■ Floor■ Home■ Determine guidelines for additional staff enlisted
16	<p>Supplies</p> <ul style="list-style-type: none">■ Stock ED with additional supplies, if possible■ Deploy pre-stocked and pre-positioned carts■ Conduct rapid inventory to determine missing supplies

NOTES

NOTIFICATION AND COMMUNICATION

(Refer to your hospital's emergency communication plan.)

Emergency Department (ED) is notified

- ED staff present in the hospital will be notified of an explosive or mass casualty event by:
 - The New York City Fire Department, Emergency Medical Services, the New York City Police Department, local agencies, Security, radio, TV, Internet, text messages, or Twitter.
 - Patients coming into the ED for treatment.
- The most Senior ED staff (Charge Nurse or Senior Emergency Department Physician or Administrator) will activate the Integrated Explosive Event and Mass Casualty Event Plan.
- Designate someone in the ED to notify Perioperative Services and Surgery, Radiology, and all Critical Care units that the plan has been activated.
- Designated clinical staff (Senior Physicians and Nurses) from Perioperative Services and Surgery, Radiology, and Critical Care units will report to the ED to assist in the management of critical patients.

Senior leadership at the hospital activates the EOC

- After receiving notification of an explosive event and activating the Integrated Explosive and Mass Casualty Event Plan, immediately contact the most senior leader at the hospital to activate the Hospital Emergency Operations Plan and Emergency Communication Plan.
- The senior leadership (or Administrator-on-Duty) will activate the opening of the EOC.
- Activate INFO Line with appropriate messaging.
- EOC will activate clinical communication system.

Continual communication with EOC

- Pre-designated charge staff from the ED will continually communicate with the EOC to provide updates and share pertinent information.
- Pre-designated charge staff from the ED should also be responsible for communicating with law enforcement and security.

Continual communication with other hospital departments (ICU, OR, Radiology)

- Pre-designated ED staff will engage in ongoing communication with the hospital's ICU, OR, and Radiology to provide information about the number of patients to expect, the severity of conditions, etc.
 - Incoming patients will be triaged based on severity. Information for the receiving departments should be communicated regularly.

DEPARTMENTAL COMMAND AND CONTROL

(To effectively organize the ED's affairs in the event of an explosive emergency.)

NOTES

Secure location

- Safety personnel should establish a secure perimeter around the hospital campus, controlling access by vehicle and foot traffic.
- Have a plan to control facility ingress and egress. This should include partial or complete lock-down procedures.
- Consider the presence of a Chemical, Biological, Radiological, Nuclear, or Explosive (CBRNE) threat and protect the immediate area.
- Activate hospital plan to prevent violence in the workplace in the event of a surge.
- Activate hospital plan to provide psychological first aid to patients, families, and staff.

Staffing: Charge Physician, Trauma Surgeon, Critical Care Intensivist (or designee), Nurses from the ORs and ICUs, and Radiology Department Senior Clinician

- The ED Command and Control Lead should be the Chief of the Emergency Department or his or her designee (Charge Nurse or most senior ED Clinician or Administrator).
- He or she will appoint all operations staff who are required for this response, and establish assistants.
 - All others should be assigned to patient care duties as assigned by the ED Command and Control Lead.
- The ED Command and Control Lead will ensure proper staffing in consultation with the EOC, as well as in ongoing communications with the ICU, Trauma, Surgery, OR, and Radiology Departments.
- The ED Command and Control Lead will provide job action sheets or assign responsibilities to staff.
- Consider dividing ED and Surgery Clinical staff into trauma teams that work in certain areas of the ED to provide emergent and critical care.

Establish triage protocol and location

- Establish primary triage protocol and local location within the ED.
 - Assign appropriate clinical leads from the ED or Surgery for appropriate and timely triage of critical patients.
 - Consider assigning a senior clinician (Nurse or MD) to perform primary triage.
 - Consider using color-coded tags or similar methods to triage incoming patients (see example on page 16) to ensure that patients are treated in the order of their clinical urgency. *Refer to Hospital Disaster Plan for further guidance.*
 - Consider having senior clinicians use a triage protocol of “look, listen, and feel” to quickly identify and move critical patients to the appropriate area of the ED for stabilization and treatment.

NOTES

Emergency Registration and Tracking

- Consider minimum information needed to register and track patients in the hospital.
- Pre-populate disaster charts with medical record number (EMR or paper).
- Consider emergency protocols for sharing patient information once registered.

Secure and deploy resources

- Identify patient care supplies needed in a surge situation, such as additional intravenous (IV) equipment, bandages and dressings, gowns, gloves, masks, etc., ahead of time. Stock “emergency” carts and train staff on their storage location, if possible.
- Refer to the hospital’s ED surge supply plan for further direction and for tracking supplies through an extended emergency.
- Consider stocking and using paper bags for forensic evidence collection with established policy for chain of custody procedures for evidence collection.

Situational awareness

- Establish and continually assess the current situation in and outside the ED (in the OR, ICU, and Radiology) so that appropriate actions can be taken.
- Establish process for evidence collection when the patient is a witness to a crime.

INCREASE CAPACITY

Rapid patient discharge

- Refer to your hospital’s ED surge capacity policy.
- Clear ED of all current ED patients who require extensive care and possible admission or admitted holds (work with hospital leadership, EOC, admissions, and clinical departments to move patients quickly out of the ED). Send admitted patients to available beds on the floors and to hallway beds.
 - Discharge patients who are well enough to be discharged.

Establish alternate care site

- Refer to DOHMH Emergency Department Capacity Extension Tool (EDCET) for ED expansion plan.
- Identify non-traditional patient care areas in the ED or hospital that could be converted to patient care areas to expand capacity for non-critical patient care (i.e., the “walking wounded” or “worried well”).
- Make certain that an ED Clinician is designated to oversee patient care in alternative care sites.
- Include Psychologists, Psychiatrists, Social Workers, Pastoral Care, and Volunteer Services in alternate care areas.

SECONDARY TRIAGE AND PATIENT THROUGHPUT

NOTES

Establish secondary triage leader

- Designate secondary ED triage leader.
 - Consider establishing joint, secondary triage of critical patients by the Senior ED Attending, Senior ICU Attending, and Senior Surgical Attending in the event of an explosive emergency or mass casualty event to identify and prioritize critical patients who can go directly to the OR or ICU after stabilization in the ED. The OR, surgery, and ICU clinical staff who reported to the ED after the Integrated Explosive and Mass Casualty Response Plan was activated should transport those critical patients to the OR and ICU.
 - If possible, establish a unidirectional flow of patients to prevent bottlenecks. Patients should leave the ED and go to Radiology, and then on to the OR or ICU without returning to the ED.
 - Senior Radiology Clinician should be mobilized and should staff all available hospital CTs and help prioritize and facilitate appropriate radiological studies to be performed on critical patients. CTs performed on critical patients should be read in real time to allow for the unidirectional flow of critical patients from Radiology to the OR or ICU, and not have them sent back to the ED.

STAFFING

(Refer to hospital staffing plan.)

Enlist additional staff

- Enlist additional staff from the floors to help in the ED, including Chief Residents, Fellows, and House Staff (they should report to an established location of the labor pool, not the ED, and the EOC should dispatch them when the ED requests them). Consider establishing a physical and virtual labor pool, along with a protocol for managing a labor pool.
- Enlist additional staff help from home using a clinical call tree (refer to hospital staffing and communication plans).
- Be sure to include plans for Transporters for rapid and efficient patient movement and flow in the hospital.
- Consider a plan for how to deal with medical volunteers who present themselves at the hospital to offer their assistance.

Determine guidelines for additional staff enlisted

- Educate additional staff on the situation and their role as they report for duty.
- Use job action sheets, fact sheets, and just-in-time trainings.
- Consider developing talking points for communication with staff, patients, and families.

NOTES

SUPPLIES

Stock ED with additional supplies, if possible

- Consider continually stocking the ED with additional supplies.
- Consider formal emergency resource request process and database.

Deploy pre-stocked and pre-positioned carts

- If possible, deploy pre-stocked carts and educate staff on their location.

Conduct rapid inventory to determine missing supplies

- Develop an emergency inventory checklist to be used during a mass casualty event.
- Designate a staff member to assess all available supplies, and to make a list of supplies that are low and can be replenished.
 - A Materials Management Representative should document any new materials that come in, including what is being used and where the materials come from.

OFF-HOURS PLAN

(Refer to Hospital Emergency Operations Plan.)

Be sure to include off-hours considerations

- As part of the hospital plan, it is important to assign roles and responsibilities before an emergency. Hospitals should identify the clinical staff who are normally in the hospital off hours and weekends in the four clinical departments (ED, Surgery, ICU, and Radiology) and assign their roles and responsibilities when the Integrated Explosive and Mass Casualty Response Plan is activated during those time periods.
- Senior ED Physician or the Charge Nurse will activate the Integrated Explosive and Mass Casualty Response Plan and establish the local operations center.
- Charge Nurse on duty will notify hospital Administrator-on-Duty to activate Hospital EOP.

COLOR-CODED TAGS

CRITICAL = **RED**

MODERATE = **YELLOW**

MILD TO MODERATE = **ORANGE** (new FDNY category)

MILD = **GREEN**



EMERGENCY DEPARTMENT CHECKLIST



Notification and Communication

- Refer to your hospital emergency communication plan
- Senior leadership activates the EOC
- Continual communication with EOC
- Continual communication with other hospital departments (ICU, OR, and Radiology)



Departmental Command and Control

- Secure location
- Staffing: Charge Physician, Trauma Surgeon, Critical Care Intensivist, Nurses, Radiology
- Establish triage protocol and location
- Emergency registration and tracking
- Secure and deploy resources
- Situational awareness



Increase Capacity

- Rapid patient discharge
- Establish alternate care site



Secondary Triage and Patient Throughput

- Establish secondary triage leader



Staffing

- Enlist additional staff
 - Floor
 - Home
- Determine guidelines for additional staff enlisted



Supplies

- Stock ED with additional supplies, if possible
- Deploy pre-stocked and pre-positioned carts
- Conduct rapid inventory to determine missing supplies

RADIOLOGY DEPARTMENT EXPLOSIVE AND MASS CASUALTY EVENT RESPONSE PLAN

SECTION GUIDE

20	Notification and Communication <ul style="list-style-type: none">■ Radiology Department will be notified■ Continual communication with EOC■ Continual communication with other hospital departments (ED, OR, and ICU)
21	Departmental Command and Control <ul style="list-style-type: none">■ Secure location■ Staffing: Chief of Radiology Department, Radiologist, Technician, Nurse, Clerk■ Establish triage protocol and location■ Secure and deploy resources■ Situational awareness
22	Increase Capacity <ul style="list-style-type: none">■ Rapid patient discharge■ Establish alternate sites where emergency radiological studies can be performed on critical patients
23	Triage and Patient Management <ul style="list-style-type: none">■ Establish triage leader■ Establish triage method (based on severity)■ Establish patient management method
24	Staffing <ul style="list-style-type: none">■ Enlist additional staff■ Determine guidelines for additional staff enlisted
25	Supplies <ul style="list-style-type: none">■ Stock Radiology Department with additional supplies, if possible■ Deploy pre-stocked and pre-positioned carts■ Conduct rapid inventory to determine missing supplies

NOTES

NOTIFICATION AND COMMUNICATION

(Refer to your hospital's emergency communication plan.)

Radiology Department will be notified

- The ED will initially notify the Radiology Department of the emergency.

Continual communication with EOC

- Pre-designated staff from the Radiology Department will continually communicate with the EOC to provide updates and share pertinent information.

Continual communication with other hospital departments (ED, OR, and ICU)

- Upon notification, the Senior Radiologist on duty will ensure proper coordination of all applicable support areas (x-ray and CT) and key staff members of the Radiology Department who will rapidly (in real time) and regularly communicate patients' interpretive findings to the receiving departments (Surgery, Medicine, or ICU).
- When possible, a pre-designated Senior Radiology Clinician will report to the ED to become a part of the integrated clinical command and assist ED and Surgical Clinicians in determining the most appropriate studies for critical patients and directing them to the available support areas (x-ray and CT).
- Radiology staff will engage in ongoing communication with the ED, ICU, and OR staff to provide information about the number of patients they have, the severity of conditions, etc.

DEPARTMENTAL COMMAND AND CONTROL

(To effectively organize the Radiology Department's affairs in the event of an explosive emergency.)

NOTES

Secure location

- Consider the presence of a CBRNE threat and protect the immediate area.
- Activate your hospital's plan to prevent violence in the workplace in the event of a surge.

Staffing: Chief of Radiology Department (or designee), Radiologist, Technician, Nurse, and Clerk

- The Chief of the Radiology Department, or the most Senior Clinician or Administrator present at the time of the incident, should lead the Radiology Department Command and Control.
- Chief of Radiology Department or Command and Control Lead will appoint all operations staff who are required for this response and establish assistants.
- When possible, the pre-designated Senior Radiology Clinician reports to the ED to be part of the integrated clinical command to assist ED and Surgical Clinicians in determining the most appropriate studies for critical patients and directing them to the available support areas (x-ray and CT).
- The Radiology Command and Control Lead will ensure proper staffing of all support areas (x-rays, CTs, and reading rooms) in consultation with the EOC, as well as in ongoing communications with the ICU, OR, Trauma, Surgery Department, and ED—including positioning one or more Radiology Technicians to perform examinations using portable equipment in the ED.
- The Radiology Command and Control Lead will ensure Staff Radiologists are available for rapid and real-time image interpretation for all examinations performed on critical patients.
- The Radiology Command and Control Lead will provide job action sheets and assign responsibilities to staff.

Establish triage protocol and location

- Establish triage protocol and location within the Radiology Department.
 - All available x-ray machines and CTs within the institution should be mobilized and staffed when possible.
 - Work with ED and Surgical Clinicians to determine which studies should be done where on critical patients. The most unstable patients should have studies performed in the ED. Patients who are more stable could have studies done in other areas of the hospital when accompanied by appropriate clinical staff.
- Coordinate with the ED or Perioperative Services and Surgery to ensure that all critical patients transported to radiology are accompanied by appropriate clinical staff (Physicians or Nurses) to monitor and treat patients so they do not deteriorate while waiting for either an examination or to be moved to surgery or ICU.

NOTES

- Radiology Clinician should work with ED, ICU, and surgical clinical staff to determine where patients are moved after radiological studies are completed and read (ideally, critical patients go directly from radiological areas to the OR, ICU, or floors without returning to the ED to maintain a unidirectional flow).

Secure and deploy resources

- Identify patient care supplies and all support equipment needed in a surge situation, and ensure that the equipment is fully functional and ready for use.
- Use lower-sized scanners for head injuries only.
- Prepare a Radiology Department Explosive Event and Mass Casualty checklist to ensure proper coordination of all applicable support areas, resources, and key staff members.
- A pre-designated Radiology staff member will ensure all assessment rooms are functionally stocked with required supplies and report shortages to Material Management Personnel.
- Refer to the hospital's surge supply plan for further direction and for tracking supplies through an extended emergency.

Situational awareness

- Establish and continually assess the current situation in the Radiology Department and in the ED, OR, and ICU so appropriate actions can be taken.

INCREASE CAPACITY

(Refer to your hospital's surge capacity policy.)

Rapid patient discharge

- Clear Radiology Department of all elective and non-emergency cases. Move any non-imaging work out of the CT room(s), leaving machine room(s) for procedures only.
- Designate a Radiology representative to keep a tally of how many patients need exams, how many are getting exams, and where they are going when they leave the Department.

Establish alternate sites where emergency radiological studies can be performed on critical patients

- Pre-identify alternate sites where emergency studies can be done within the hospital (locate all available x-ray machines, CT scanners, etc.).
- Consider identifying a "step-up" waiting area within the Radiology Department.

TRIAGE AND PATIENT MANAGEMENT

NOTES

Establish triage leader

- Designate Radiology Department triage leader who is positioned in Radiology to prioritize patients for treatment and transport based on the severity of their injuries to work with the pre-designated ED or Perioperative Services Physician.

Establish triage method

- Patients may be re-triaged at any time during their visit to the Radiology Department by accompanying clinical staff in the Department (continue to use color-coded or similar methods of triage as initiated by the ED—see page 16).
- Augment the total care and treatment plan of the Attending Physicians:
 - Radiologists and Technicians will conduct imaging assessments to determine the source and extent of patients' injuries.
 - Receive casualties and ensure proper identification of examinations that need to be performed (color-coded labeling for severity of injuries may be done in the ED at triage, including patient's name and information on their body).
 - Observe the casualties for indications of distress and any potential medical emergency that would require their triage status to be upgraded.
- Communicate interpretive findings in real time to the Clinicians involved in the patient care within the Radiology Department, as well as the Radiology Command and Control lead.
 - Consider pre-stocking body outline labels in the Radiology Department so that in the event of an emergency, staff can demonstrate by marking on the label where and what type of injuries the patients have, and stick the label right on the patients themselves.
- Prioritize patients who need immediate interventions (OR or ICU) to have studies done with accompanying medical or nursing staff for ongoing monitoring and treatment.
- Prepare to upgrade any casualty's triage status should that patient's condition worsen while in radiology.

Establish patient management method

- If possible, establish a unidirectional flow of patients to prevent bottlenecks in the system. Reverse patient flow back to the ED or into any acute treatment area is highly discouraged.
 - From Radiology, critical patients should be directed to the OR, ICU, or floor.
 - If possible, patients should not be moved to the Radiology Department or elsewhere for special procedures and then returned to the ED or resuscitation area.
 - Consider moving patients who acutely decompensate in radiology to the ICU rather than returning them to the ED, if the ICU is closer (this will depend on where the study is performed).

NOTES

- The Radiology Department should coordinate with the ED, ICU, OR, as well as other hospital administrative and technical support staff as needed to ensure a smooth patient flow and rapid casualty assessment and evaluation.
- Radiologists or other pre-identified Radiology Department staff will assist in directing casualties to the various imaging modalities.
 - Prepare Radiologists to read and interpret films as they are being done to save time. A Radiologist should be assigned to available CTs to read the images in real time, if possible.

STAFFING

(Refer to hospital staffing plan.)

Enlist additional staff

- Consider sending Radiology Technicians with portable equipment to the ED immediately upon learning of the event to begin conducting examinations.
- Enlist additional staff help in the Radiology Department from the floor, including House Staff. Enlist additional staff help from home by using a clinical call tree (refer to hospital staffing and communication plans).
- Include Transporters for rapid and efficient patient movement and flow in the hospital.
- Hospital Administrative EOC can deploy staff as needed from the labor pool.

Determine guidelines for additional staff enlisted

- Educate additional staff on the situation and their role as they report for duty.
- Consider cross-training all Radiology Department Technicians for both ultrasound and vascular exams so they can do either in the event of an explosive emergency.
- Radiology Department staff reporting for assignment should be composed of Radiologists to interpret images, Technologists to radiograph casualties, and other available personnel for ensuring efficient patient processing and patient flow.
- Consider assigning an Ultrasound Technician to either remain in the Radiology Department or be positioned in the ED to assist ED and surgical clinicians in immediate “focused abdominal sonography for trauma” (FAST) exams.
- Additional staffing needs and requirements should be communicated to the Radiology Command and Control Lead.

SUPPLIES

Stock Radiology Department with additional supplies, if possible

- Consider stocking the Radiology Department with additional supplies on a continuous basis.
- Consider pre-stocking body outline labels to help Radiologists quickly communicate where injuries are on a patient.

Deploy pre-stocked and pre-positioned carts

- If possible, deploy pre-stocked carts and educate staff on the location of these carts.

Conduct rapid inventory to determine missing supplies

- Develop an emergency inventory checklist to be used during a mass casualty event.
- Designate a staff member to assess all available supplies, and make a list of supplies that are low and can be replenished.
 - A Materials Management Representative should document any new materials that come in, including what is being used and where the materials come from.

OFF-HOURS PLAN

Be sure to include off-hours considerations

- As part of the hospital plan, it is important to assign roles and responsibilities prior to an emergency. Hospitals should understand who is in charge in their department and what their responsibilities are at any point during a 24-hour period.
- Hospitals should identify which Radiological staff is available on off hours and weekends and assign roles and responsibilities when the Integrated Explosive and Mass Casualty Response Plan is activated.
- Radiology staff on duty will notify Radiologists-on-Call to report to the hospital. Additional Radiology staff should be called into the hospital per the departmental emergency communication plan.

NOTES



RADIOLOGY DEPARTMENT CHECKLIST

Notification and Communication

- Radiology Department will be notified
- Continual communication with EOC
- Continual communication with other hospital departments (ED, OR, and ICU)

Departmental Command and Control

- Secure location
- Staffing: Chief of Radiology Department, Radiologist, Technician, Nurse, Clerk
- Establish triage protocol and location
- Secure and deploy resources
- Situational awareness

Increase Capacity

- Rapid patient discharge
- Establish alternate sites where emergency radiological studies can be performed on critical patients

Triage and Patient Throughput

- Establish triage leader
- Establish triage method (based on severity)
- Establish patient management method

Staffing

- Enlist additional staff
- Determine guidelines for additional staff enlisted

Supplies

- Stock Radiology Department with additional supplies, if possible
- Deploy pre-stocked and pre-positioned carts
- Conduct rapid inventory to determine missing supplies

PERIOPERATIVE SERVICES EXPLOSIVE AND MASS CASUALTY EVENT RESPONSE PLAN

SECTION GUIDE

30	Notification and Communication <ul style="list-style-type: none">■ Perioperative Services will be notified■ Notification of Perioperative Services and Surgery personnel■ Continual communication with EOC■ Continual communication with other hospital departments (ED, Radiology, and ICU)
31	Departmental Command and Control <ul style="list-style-type: none">■ Secure location■ Staffing: Charge Physician (Trauma Surgeon or Chief of Surgery), Charge Nurse, Nursing■ Situational awareness
32	Increase Capacity <ul style="list-style-type: none">■ Cancel all elective and non-essential procedures
32	Triage and Patient Throughput <ul style="list-style-type: none">■ Establish triage leader■ Establish secondary triage protocol and location
32	Staffing <ul style="list-style-type: none">■ Enlist additional staff■ Determine guidelines for additional staff enlisted■ Deploy Perioperative Services staff in other areas of the hospital for triage
33	Supplies <ul style="list-style-type: none">■ Stock ORs with additional supplies, if possible■ Deploy pre-stocked and pre-positioned carts■ Conduct rapid inventory to determine missing supplies

NOTES

NOTIFICATION AND COMMUNICATION

(Refer to your hospital's emergency communication plan.)

Perioperative Services and Surgery will be notified

- The ED will notify Perioperative Services and Surgery (Trauma Team in trauma centers) that the Integrated Explosive and Mass Casualty Response Plan has been activated.
- Upon notification, the surgical team, including the most senior Surgical Attending or his designee and pre-identified OR nursing staff present in the hospital, will report to the ED for a debriefing from the ED Clinical Command.

Notification of Perioperative Services and Surgery personnel

- Perioperative Services and Surgery Command and Control Lead (Chief of Surgery or the most senior Attending Physician or Resident) will designate a member of the team to notify the Perioperative Services and Surgery critical personnel per the department call-down list or emergency communication plan.

Continual communication with EOC

- Pre-designated Charge staff from Perioperative Services will continually communicate with the ED Command and Control Lead and EOC (once established) to provide updates and share pertinent information.
- Perioperative Services and Surgery staff will report to the Command and Control Lead to be assigned duties. No one should report directly to the OR or ED.

Continual communication with other hospital departments (ED, Radiology, and ICU)

- The Perioperative Services and Surgery Command and Control Lead will continually communicate with other department operations centers or senior staff members to determine incoming volume and severity of victims, as well as placement of patients post-surgically.
- Identify a Perioperative Services and Surgery representative to keep tally of how many ORs are being used, how many patients are getting operated on, how many patients are waiting, and where the patients are going post-operatively. The representative will also notify other departments that will be receiving the patients after their procedures.

DEPARTMENTAL COMMAND AND CONTROL

(To effectively organize affairs of the Trauma Surgery Department and the OR in the event of an explosive emergency.)

NOTES

Secure location

- Consider the presence of a CBRNE threat and protect the immediate area.
- Activate your hospital’s plan to prevent violence in the workplace in the event of a surge.

Staffing: Charge Physician (Trauma Surgeon or Chief of Surgery), Charge Nurse, Nursing

- The Perioperative Services and Surgery Command and Control Lead should be the Chief of Surgery or the most senior staff member.
 - Pre-determine whether the most senior clinical staff member will report to the ED to assist with patient care and secondary triage, or remain in the OR. Ideally, the most senior surgical clinician should initially report to the ED once the plan is activated and then transition to the OR by helping transport patients from the ED to the OR.
 - Pre-determine the number of OR nurses (at least two are recommended) who will report to the ED once the plan has been activated to assist with patient care, if needed, and transport critical patients to the OR when stabilized.
- The Perioperative Services and Surgery Command and Control Lead will appoint all staff who are required for this response and establish assistants.
 - All others should be assigned to patient care duties.
- The Perioperative Services and Surgery Command and Control Lead will provide a central location for members of the Perioperative Services and surgical subspecialties to obtain updates and assignments, and to communicate information and needs directly to the Lead.
- The Perioperative Services and Surgery Command and Control will serve as the staging area for establishing operative teams and assigning staff to other non-operative surgical responsibilities.
- The Perioperative Services and Surgery Command and Control Lead will ensure proper staffing in consultation with the EOC, as well as ongoing communication with the ED, ICU, and Radiology Department.
- The Perioperative Services and Surgery Command and Control Lead will provide job action sheets or assign responsibilities to staff.

Situational awareness

- Establish and continually assess the current situation in the ORs, ED, ICU, and Radiology so appropriate actions can be taken.

NOTES

INCREASE CAPACITY

Cancel all elective and non-essential procedures

- The Hospital Incident Commander and EOC will decide how this trigger will be defined.
- All elective, non-urgent surgeries should be canceled.

TRIAGE AND PATIENT THROUGHPUT

Establish triage leader

- Designate OR secondary triage leader.
- If a hospital has chosen to establish joint secondary triage by the Chief of the ED or Senior ED Clinician and Chief of Surgery or Senior Surgical Clinician, as this plan recommends, then this designee will report to the ED once the plan has been activated.

Establish secondary triage protocol and location

- In the event of a large number of critical casualties presenting in the ED, performing secondary triage there to prioritize patients for surgical intervention will be essential. This should be done by the integrated clinical command (ED Senior Clinician working with Surgical Senior Clinician). Once patients have been stabilized in the ED, they will move directly to the OR or to Radiology with surgery and perioperative nursing staff to maintain a unidirectional patient flow while not depleting the ED of needed staff.
- Determine alternate spaces for critical patients awaiting surgery outside the ED (e.g., SICU, ICUs, or PACU).

STAFFING

(Refer to hospital staffing plan.)

Enlist additional staff

- Enlist additional staff help in ORs, including Chief Residents, Fellows, and House Staff.
- Enlist additional staff help from home using a clinical call tree (refer to hospital staffing and communication plans).
- Be sure to include Transporters for rapid and efficient patient movement and flow.
- Consider staggering any additional staff coming in to provide relief and mitigate burnout.
- Hospital Administrative EOC will provide needed staff from the labor pool upon request.

Determine guidelines for additional staff enlisted

- Educate additional staff on the situation and their role as they report for duty.

Deploy Perioperative Services and Surgery staff in other areas of the hospital for triage

- See guidelines for ED triage and secondary triage (page 15).

SUPPLIES

Stock ORs with additional supplies, if possible

- Consider continually stocking the OR with additional supplies.

Deploy pre-stocked and pre-positioned carts

- If possible, deploy pre-stocked carts and educate staff on their location.

Conduct rapid inventory to determine missing supplies

- Develop an emergency inventory checklist to be used during a mass casualty event.
- Designate a staff member to assess all available supplies, and make a list of supplies that are low and can be replenished.
 - A Materials Management Representative should document any new materials that come in, including what is being used and where the materials come from.

OFF-HOURS PLAN

Be sure to include off-hours considerations

- As part of the hospital plan, it is important to assign roles and responsibilities prior to an emergency. Hospitals should understand who is in charge in their department and what their responsibilities are at any point during a 24-hour period.
- Hospitals should identify which perioperative and surgical staff is available on off-hours and weekends and assign roles and responsibilities when the Integrated Explosive and Mass Casualty Response Plan is activated.
- Charge DOS nurse notifies Surgeon(s) on call to report to the hospital.

NOTES



PERIOPERATIVE SERVICES CHECKLIST

Notification and Communication

- Perioperative Services will be notified
- Notification of Perioperative Services and Surgery personnel
- Continual communication with EOC
- Continual communication with other hospital departments (ED, Radiology, and ICU)

Departmental Command and Control

- Secure location
- Staffing: Charge Physician (Trauma Surgeon or Chief of Surgery), Charge Nurse, Nursing
- Situational awareness

Increase Capacity

- Cancel all elective and non-essential procedures

Triage and Patient Throughput

- Establish triage leader
- Establish secondary triage protocol and location

Staffing

- Enlist additional staff
- Determine guidelines for additional staff enlisted
- Deploy Perioperative Services staff in other areas of the hospital for triage

Supplies

- Stock ORs with additional supplies, if possible
- Deploy pre-stocked and pre-positioned carts
- Conduct rapid inventory to determine missing supplies

CRITICAL CARE SERVICES EXPLOSIVE AND MASS CASUALTY EVENT RESPONSE PLAN

SECTION GUIDE

38	Notification and Communication <ul style="list-style-type: none">■ ICUs will be notified■ Notify Department of Critical Care personnel■ Continual communication with EOC■ Continual communication with all critical care units, the ED, Radiology, and OR
39	Departmental Command and Control <ul style="list-style-type: none">■ Secure location■ Staffing: Charge Physician, Charge Nurse, Clerk■ Situational awareness
40	Increase Capacity <ul style="list-style-type: none">■ Rapid patient discharge■ Establish alternate care sites■ Frequently evaluate capacity■ Patient management
41	Triage and Patient Throughput <ul style="list-style-type: none">■ Establish secondary triage protocol and location
41	Staffing <ul style="list-style-type: none">■ Enlist additional staff■ Determine guidelines for additional staff enlisted
42	Supplies <ul style="list-style-type: none">■ Stock ICUs with additional supplies, if possible■ Deploy pre-stocked and pre-positioned carts■ Conduct rapid inventory to determine missing supplies

NOTES

NOTIFICATION AND COMMUNICATION

(Refer to your hospital's emergency communication plan.)

ICUs will be notified

- The ED will initially notify ICU staff present in the hospital that the Integrated Explosive and Mass Casualty Plan has been activated.
- Ideally, senior ICU clinicians with ICU nurses (two nurses are recommended) will report to the ED to become a part of the Integrated Clinical Command and assist with secondary triage, patient care as needed, and transporting critical patients directly to the ICU, or to Radiology and then the ICU. This staff will transition back to the ICU as patients are moved from the ED to the ICUs.
- The Senior ICU Staff Member (Clinician or Administrator) will:
 - Gather all department staff.
 - Brief staff on the situation.
 - Activate the departmental emergency response plan.

Notification of Department of Critical Care Personnel

- The Critical Care Command and Control Lead (the most senior staff member present) will designate a member of the team to notify critical personnel per the department call-down list or emergency communication plan.

Continual communication with EOC

- Pre-designated Charge staff from Critical Care (CC) will continually communicate with the EOC to provide updates and share pertinent information.
- CC staff will report to the Critical Care Command and Control Lead to be assigned duties (staff should not report directly to the ED or other patient care locations).

Continual communication with all critical care units, the ED, Radiology, and OR

- Consider pre-determining one CC leader and nursing staff to be part of the ED response and integrated clinical command.
- Critical Care Command and Control Lead will continually communicate with other department operations centers to determine incoming volume and severity of victims, as well as placement of patients post-surgically or once they leave the ED.
 - Critical Care Command and Control Lead with ED Command and Control Lead: Determine how many patients are expected to come to the ICU from the ED, and the severity of the patients' injuries.
 - Critical Care Command and Control Lead with Perioperative Services and Surgery Command and Control Lead: Communicate how many patients will come to the ICU post operations, and the nature of their injuries.

NOTES

- Critical Care Command and Control Lead with Radiology Command and Control Lead: Provide information about examinations that need to be performed and assessments that have been made.
- Critical Care Command and Control Lead with Step-down and Floors: Communicate about the number and placement of patients once they are well enough to be moved from CC to the floor.
- Continually communicate with all critical care units in the hospital (e.g., ICU, MICU, SICU, PICU).
- Note: Hospitals should expand upon the communication response plan based on internal interdepartmental communication procedures.

DEPARTMENTAL COMMAND AND CONTROL

(To effectively organize affairs of the ICUs in the event of an explosive emergency.)

Secure location

- Consider the presence of a CBRNE threat and protect the immediate area.
- Activate your hospital's plan to prevent violence in the workplace in the event of a surge.

Staffing: Charge Physician, Charge Nurse, Clerk

- The Critical Care Command and Control Lead should be the most senior staff member. Alternatively, consider pre-determining that the most senior physicians or staff members from each critical care unit in the hospital will work together as one leadership team.
- The Critical Care Command and Control Lead(s) will appoint all operations staff who are required for this response, and establish assistants.
 - All others should be assigned to patient care duties.
- The Critical Care Command and Control will provide a central location for members of the CC and CC subspecialties to meet, obtain updates and assignments, and communicate information and needs directly to the Command and Control Lead. This could be the nurses' station or a staff room.
- The Critical Care Command and Control will serve as the staging area for assigning staff to other non-ICU responsibilities.
- The Critical Care Command and Control Lead will ensure proper staffing in consultation with the EOC, as well as in ongoing communications with other ICUs, the ED, the ORs, and Radiology.
- The Critical Care Command and Control Lead will provide job action sheets or assign responsibilities to staff.

Situational awareness

- Establish and continually assess the current situation in all ICUs, ORs, ED, and Radiology so that appropriate actions can be taken.

INCREASE CAPACITY

NOTES

Rapid patient discharge

- Refer to hospital rapid patient discharge (RPD) protocol to discharge patients to their homes, to floors, or step-down units. See two sample RPD tools as follows:

- *Discharge Patients to Home During Disasters:*

Room #		
Pt. Name		
Diagnosis		
Attending Approving Discharge		
Approving Physician		
Destination		
Parental consent (if needed)		

- *Management of ‘Sicker Patients than Usual’ on the Floors form: Chief Resident should complete:*

Room #		
Pt. Name		
Diagnosis		
On drips of		
FiO2 and BiPAP settings		
Supervising CC Attending or Fellow		
Supervising CC RN or Transport RN		

- Bed management committee, which should include an Attending, Fellow, and Nurse, meets at nurse’s station to obtain an accurate bed census and determine who can be downgraded to step-down, floor, or home.
- Conduct a walk-through and decide which patients can be discharged home, to floor, or to step-down units, as appropriate.
- RPD tool should be used at the beginning of each shift.

Establish alternate care sites

- Refer to DOHMH Intensive Care Unit Capacity Expansion Tool (ICUCET) for ICU expansion plan.

Frequently evaluate capacity

- Rapid discharge team should meet at the beginning of each shift to determine discharges from the ICU to step-down units or to floor, as appropriate.

Patient management

- Assign a CC Physician to remain in the ICU to sign orders and help discharge patients.
- Consider assigning a CC Clinician, when possible, to assist with ongoing patient care in the ED or in other departments, as needed.

TRIAGE AND PATIENT THROUGHPUT

Establish secondary triage protocol and location

- In the event of a large number of critical casualties presenting in the ED, it will be essential to perform secondary triage in the ED to prioritize patients for ICU admission. This will ideally be done by the integrated clinical command (ED Senior Clinician working with ICU Senior Clinician). Once patients have been stabilized in the ED, they will move directly to the ICU, or to Radiology and then ICU, with Critical Care Services Physician and Nursing Staff to maintain a unidirectional patient flow while not depleting the ED of needed staff.
- Determine alternate spaces for critical patients awaiting ICU beds outside of the ED (refer to ICUCET).

STAFFING

(Refer to hospital staffing plan.)

Enlist additional staff

- Enlist additional staff help in ICUs, including Chief Residents, Fellows, and House Staff.
- Enlist additional staff help from home using a clinical call tree (refer to hospital staffing and communication plans).
- Be sure to include a Transporter for rapid and efficient patient movement and flow.
- Consider staggering any additional staff coming in to provide relief and mitigate burnout.
- Hospital Administrative EOC will provide additional staff on request from the labor pool.

Determine guidelines for additional staff enlisted

- Educate additional staff on the situation and their role as they report for duty.

NOTES

NOTES

SUPPLIES

Stock ICUs with additional supplies, if possible

- Consider continually stocking the ICU with additional supplies.

Deploy pre-stocked and pre-positioned carts

- If possible, deploy pre-stocked carts and educate staff on their location.

Conduct rapid inventory to determine missing supplies

- Refer to the ICUCET.
- Designate a staff member to assess all available supplies, and make a list of supplies that are low and can be replenished.
 - A Materials Management Representative should document any new materials that come in, including what is being used and where the materials come from.

OFF-HOURS PLAN

Be sure to include off-hours considerations

- As part of the hospital plan, it is important to assign roles and responsibilities prior to an emergency. Hospitals should understand who is in charge in their department and what their responsibilities are at any point during a 24-hour period.
- Hospitals should identify which ICU staff is available on off hours and weekends and assign roles and responsibilities when the Integrated Explosive and Mass Casualty Response Plan is activated.
- Charge CC Nurse calls the Physician-on-Call to report to the hospital as soon as possible.



CRITICAL CARE SERVICES CHECKLIST



Notification and Communication

- ICUs will be notified
- Notify Department of Critical Care personnel
- Continual communication with EOC
- Continual communication with all critical care units, the ED, Radiology, and OR



Departmental Command and Control

- Secure location
- Staffing: Charge Physician, Charge Nurse, Clerk
- Situational awareness



Increase Capacity

- Rapid patient discharge
- Establish alternate care site
- Frequently evaluate capacity
- Patient management



Triage and Patient Throughput

- Establish secondary triage protocol and location



Staffing

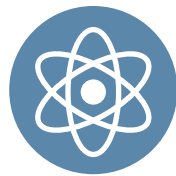
- Enlist additional staff
- Determine guidelines for additional staff enlisted



Supplies

- Stock ICUs with additional supplies, if possible
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- Conduct rapid inventory to determine missing supplies

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