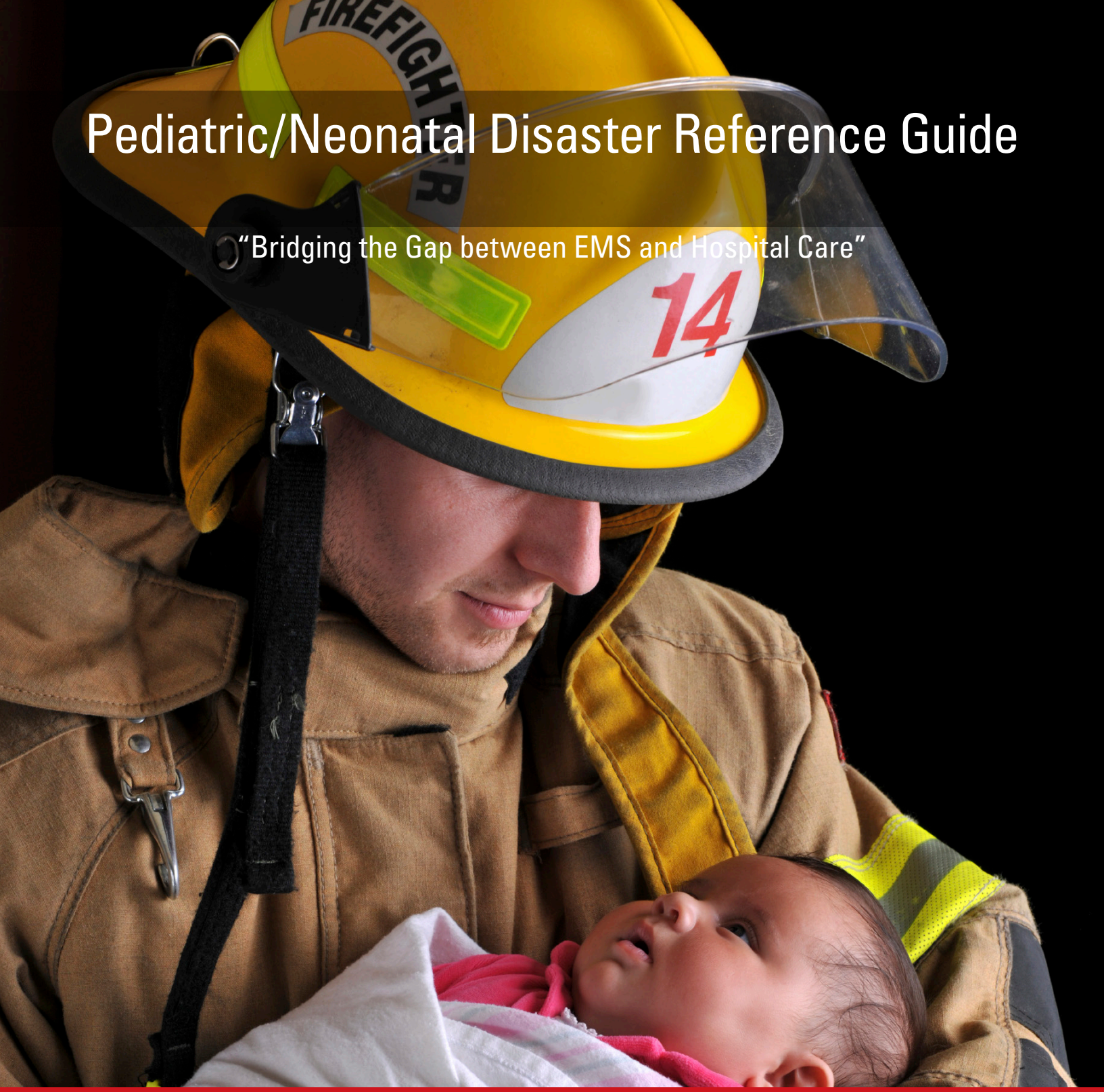
Pediatric/Neonatal Disaster Reference Guide

"Bridging the Gap between EMS and Hospital Care"



Resources to aid in the development or enhancement of
Emergency, Obstetrical, Neonatal and Pediatric Emergency Operations Planning

LOMA LINDA UNIVERSITY
CHILDREN'S HOSPITAL

This is why we do it…

http://www.youtube.com/watch?v=xm9bGII7kh4

Background

In 2007 The National Commission on Children and Disasters was established by Congress and the President as an independent, bipartisan body to identify gaps in disaster preparedness, response and recovery for children and make recommendations to close those gaps. In October of 2009, the 10 member Commission submitted an interim report and in August 2010 approved a progress report to the President and Congress citing that children are 25 percent of our nation's population and neglected in all areas of disaster preparedness. The report called for a "cohesive national strategy to address the unique needs of children as we are simply not prepared to protect children during disasters."

The Commission report found large gaps in:

- Funding for school disaster preparedness
- Insufficient coordination among federal, state and local agencies responsible for children and lack of preparedness in the private healthcare system
- Inadequate essential pediatric equipment to support emergency response for even normal conditions.

In 2009, the California Neonatal/Pediatric Disaster Coalition was founded as a collaborative effort in response to H1N1 by Contra Costa and Alameda County Emergency Medical Services. During H1N1 children were disproportionally affected in emergency department surges of 30-50% and with pediatric hospital inpatient occupancy rates of over 95%. If the H1N1 pandemic had lasted a little longer, affected a few more children or resulted in longer inpatient stays, state and national pediatric capacity and capability would have been completely overwhelmed.

The California Neonatal/Pediatric Disaster Coalition is a network of pediatric, neonatal, emergency care and disaster professionals from all disciplines working to support Neonatal and Pediatric Disaster and Medical Surge Preparedness in our local communities. Our focus is on helping translate guidance into action.

Coalition members are connected to each other through a listserve. The listserve connects participants with ideas, information, resources and strategies supporting disaster planning on the local, regional and state level. Coalition partners are invited to share their projects and progress on the Coalition Google site at https://sites.google.com/site/pedineonetwork/.

Over the last three years the Coalition has:

- Conducted a statewide pediatric and neonatal bed capacity report to inform communities of their local bed capacity.
- Coalition neonatal and pediatric disaster champions have successfully engaged numerous organizations, regional healthcare systems, pediatric and community hospitals and counties in implementing national guidance and best practices gaining both state and national recognition.
- Helped generate pediatric and neonatal specific disaster plans, templates throughout California.

Purpose Statement

This guide was created to help emergency managers/coordinators/hospitals in their efforts to develop their own specific departmental Emergency Operations Plan (EOP) that addresses the special needs of children and infants. This guide is meant to drive the active planning process, not to take its place. There is no single format that can adequately fit every community so this document is a culmination of best practice, expert opinions and other plans intended to assist in building your plan.

This guide is intended primarily for use by personnel responsible for the development and maintenance of the hospital specific in-patient unit Emergency Operations Plan (EOP). It is strictly a guide. It establishes no requirements and its recommendations may be used, adapted or disregarded. It is our intent that this document will provide the foundation for discussions about emergent pediatric care during a wide-scale disaster. It is not intended to prescribe action, mandate responses or direct activity, but simply to provide a framework for continuing discussions. As with all plans of this nature, it will require regular review, refinement and revisions.

Why Develop a Specific Pediatric Disaster Planning Hospital Resource?

The mission of the CA Neonatal/Pediatric Disaster Coalition is to enhance the ability of hospitals and healthcare systems to prepare for and respond to neonatal/pediatric medical surge health and emergencies. The United States constantly faces the real possibility of catastrophic health and medical incidents that could involve thousands, or tens of thousands of patients. Therefore it is critically important for health systems to identify, plan and prepare for the possibility of a medical surge and /or mass-casualty incident.

Children Hospitals that are accredited by the Joint Commision are required by regulatory agencies to have a hospital Emergency Operation Plan. In-Patients Units need to be prepared for large scale disasters and not rely on other areas for their specific population. Education about disasters and how the units deliver communication to the Hospital Command Center (HCC) so that every unit's unique needs are addressed in a uniform fashion. Our role does not stop with planning at the Unit level; we must include the hospital leadership, emergency managers and the local county Emergency Planners including the Medical Health Operational Area Coordinator (MHOAC). The MHOAC is a position unique to California State. Be sure to check with local Emergency Operational Area planners in each state to which EMS agencies are used. These agencies have a large role in moving our critically ill pediatric and obstetrical patients safely in a disaster, and it is vitally important that hospitals work with them to develop a plan that addresses the critical needs of these specific populations.

With proper planning and guidance, emergency management agencies can minimize the risk faced by the community's children that require critical care management in the hospital.

Key Areas for the Overall Plan

A common process is important in minimizing potential chaos associated with any disaster or emergency. It is recommended all personnel with a supervisory role including medical leadership staff follow the National Incident Command System (NIMS) and Hospital Incident Command System (HICS) guidelines to coordinate a well-managed approach for any incident, assist in resource allocation and develop consistent patient tracking processes.

A common thread among the lessons learned from Hurricanes Katrina and Rita include deficient planning related to communication systems. It is recommended that facilities test for communication redundancies due to the inherently fragile condition of the perinatal, PICU and NICU populations and their needs.

A common component of disaster planning is bridging the gap between EMS partners and in-patient hospital departments. During a disaster, some infants and children will require advanced life support and they may require transport to a higher level of care. With limited resources, this may not be possible right away. We have added "Clinical Considerations" in each specialty area to assist outlaying facilities and our EMS partners.

Hospital plans should include written processes for coordinating efforts with the incident management staff and the assignment of evacuation roles to ancillary staff to assist with non-clinical tasks to mobilize special populations of patients.

In disasters, departmental leaders need to plan for a minimum of 96 hours for staff needs, as well as patient care needs and supplies that may be depleted as supplies are moved with the patients. In the event that supplies or equipment cannot be replenished, staff may need to improvise. It is important that staff become familiar with non-traditional methodologies to assist equipment-dependent emergency, obstetrical, neonatal or pediatric patients. A back-to-the-basics approach without the aid of technology may prove challenging to novice nurses. Patient ventilation techniques using intermittent positive pressure breathing machines, monitoring electrocardiograms of unstable patients using defibrillators, titrating IV rates using IV flow-rate devices, headlamps as light sources and using piston syringes for suctioning are a few examples used by staff during past emergencies. For more information on altered standards of care guidelines, see http://www.bepreparedcalifornia.ca.gov/CDPHPrograms/PublicHealthPrograms/EmergencyPreparednessOffice/EPOProgramsandServices/Surge/SurgeProjectBackground/ProjectWorkGroups/Documents/DraftSuppliesPharmEquipWTO.pdf

Staff should maintain proper records for the patients during a surge or when being evacuated to other facilities. Given the circumstances, it may not be feasible to obtain access to electronic records or complete medical charts, so plan on other formats to pass pertinent patient care information to the next provider.

Patient tracking and transport needs prove to be a challenge during disasters. Lessons learned from Hurricanes Katrina and Rita emphasize the need for community-wide planning.

Hospital plans should include a comprehensive emergency management strategy rather than a hospital-centric focus. Consider executing Memorandums of Understanding (MOU) with private ambulance agencies, critical care aeromedical transportation providers and bus companies. Keep in mind that during a disaster, other entities may be competing for these same resources so the availability even with an MOU might not be available, hence the work towards 96 hours of self-sustainability is necessary until assets can be mobilized for support. It is important to coordinate with local government entities during planning and response to decrease the probability of lacking resources such as transportation and bed availability at accepting facilities.

The pre-planning process should also consider neighboring hospitals with critical care capabilities within your city and county. It has been proven in past disasters that communities do come together and assist those who are vulnerable and at high risk. Use the pre-planning phase to build relationships within your community.

Summary

Disaster planning is a challenge, especially when considering the complexity of care required in the emergency department, obstetrical, pediatric and neonatal populations. This places additional strain on an already taxed system.

Your expertise and actions are therefore sought, so that limited obstetrical, pediatric and neonatal resources are effectively incorporated into executable plans.

At the local level:

- Hospitals with pediatric and neonatal patient populations should work with emergency local preparedness partners
- Incorporate recommendations of "best-practice," lessons learned and current pediatric disaster publications

- Ensure a pediatric subject matter expert (SME) is included in the planning to advocate on behalf of the pediatric/neonatal/perinatal population.

At the state level:

- Work with the pediatric leaders and facilities in your jurisdiction to ensure a pediatric SME is included in the planning and response phases
- Identify and support a coordinating entity to assist in the pediatric/neonatal/perinatal response efforts
- Establish and maintain a pediatric/neonatal/perinatal database to include capability, capacity, resources and asset availability
- Execute contracts and/or mutual aid agreements with pediatric/neonatal/perinatal facilities for specialty strike team development and specialty transport assets
- Support healthcare facilities in their decision to shelter-in-place or evacuate
- Author legislature and policy changes to include the unique needs of the population

At the federal level:

- Identify and adapt transportation assets to be capable of transporting this unique population
- Improve and streamline accessibility to federal transport assets earmark funding to improve pediatric preparedness and response efforts and ensure pediatric/neonatal/perinatal needs are addressed in federal planning and response
- Include a pediatric/neonatal/perinatal component to federally sponsored exercises and drills
- Author legislature and policy changes to include the unique needs of the population

The current disaster planning literature from published experts recommends all free-standing children's hospitals and facilities with dedicated pediatric/neonatal/perinatal units, along with emergency departments, utilize this information and address the above recommendations when developing their specific emergency preparedness and response plans.

ACKNOWLEDGMENTS

Loma Linda University Children's Hospital gratefully acknowledges the commitment and dedication of the Loma Linda University Pediatric Disaster Planning Conference Committee. The committee was comprised of Emergency Department administrators, trauma services, neonatal and pediatric intensive care nurses, pediatric and neonatal transport team coordinators, neonatal pharmacist, respiratory leadership, neonatal and emergency department educators, neonatologists, critical care pediatricians, the hospital disaster planner as well as a representative from Inland County Emergency Medical Agency (ICEMA),Contra Costa and Alameda EMS agencies and the California Hospital Association Hospital Preparedness Coordinator for San Bernardino County. Their contributions and collaboration have been instrumental in designing this guideline.

Their collective efforts have aided the California Statewide Neonatal/Pediatric Disaster Coalition program in expanding the resources available to healthcare facilities to improve pediatric and neonatal disaster planning within our state.

Contributions have also been made by the Lucille Packard Children's Hospital at Stanford, NICU and Department of Obstetrics. Additional hospital emergency preparedness planners and subject matter experts have reviewed and commented on draft versions of this document.

In memory of Janet Ninnis, MD who devoted much time and effort to neonatal disaster preparedness. She lost her battle with cancer in 2011.

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ADMINISTRATIVE PLANNING

Administrative Planning

Area 1- Federal and State Response Planning Overview

National Incident Management System (NIMS) is a system that works across the nation among all jurisdictions to manage incidents. NIMS works within all disciplines to allow members to collaborate together to "prevent, protect against, respond to, recover from and mitigate the effects of incidents, regardless of cause, size, complexity, in order to reduce the loss of life and property and harm to the environment" (U.S. Department of Homeland Security, 2008). After 9/11 the Federal Government realized the importance in dealing with catastrophic events in a systematic approach. They adopted the Incident Command System (ICS) structure that has proven effective in large scale events for fire departments for many years. This ensures that responding agencies at all levels: federal, state, counties, cities, hospitals and front line staff are all speaking the same language. Hospitals adapted the Incident Command Structure (ICS) to the healthcare environment in the late 1980's. It was known as the Hospital Emergency Incident Command System (HEICS). This was later updated to the Hospital Incident Command System (HICS) in 2006. With this systematic approach, disciplines can communicate similarly in a disaster.

For more information, see:
http://nv.gov/search/?q=nims700study_guide.pdf

California has a Standardized Emergency Management System (SEMS) that provides the fundamental structure for emergency response in California, incorporating the use of the Incident Command System (ICS), Operational Area (OA)concept, multi-agency coordination and the California Disaster and Civil Defense Master Mutual Aid Agreement. The State Emergency Plan in accordance with the California Emergency Services Act, outlines the activities of all California jurisdictions within a statewide emergency management system. Within the public health and medical systems in California, coordinating functions exist at the level of the Operational Area, Mutual Aid Region and State. California Public Health and Medical Emergency Operations Manual, commonly referred to as the *EOM*, was adopted in July 2011 by the California Department of Public Health (CDPH) and the Emergency Medical Services Authority (EMSA) to provide a framework and mechanism for local governments to provide situational awareness (SIT-REP) and request resources when necessary.

For more information, see:
http://emsa.ca.gov/disaster/files/EOM712011.pdf

Area 2- Regional Response Planning Overview

At the regional level, the Emergency Medical Services Authority (EMSA) and Department of Health Services (DHS) jointly appoint a Regional Disaster Medical and Health Coordinator (RDMHC), whose responsibilities include supporting the mutual aid requests of the Medical Health Operational Area Coordinator (MHOAC) for disaster response within the region and providing mutual aid support to other areas of the state in support of the state medical response system. The RDMHC also serves as an information source to the state medical and health response system. Similar to the MHOAC Program, it is recognized that effective regional coordination requires a comprehensive RDMHC Program.

The Regional Disaster Medical and Health Coordinator (RDMHC) is an appointed position in each of the six Mutual Aid Regions established by Health and Safety Code §1797.152. The RDMHC coordinates disaster information and medical and health mutual aid and assistance

within the Mutual Aid Region or in support of other affected Mutual Aid Region(s). The RDMHC may be a county health officer, county coordinator of emergency services, local emergency medical services administrator or local emergency medical services medical director. Appointees are nominated by a plurality of the votes of local health officers in the Mutual Aid Region and jointly appointed by the Directors of CDPH and EMSA.

The Regional Disaster Medical and Health Specialist (RDMHS) is a component of the RDMHC Program who directly supports regional preparedness, response, mitigation and recovery activities. Similar to the MHOAC Program, effective coordination within the Mutual Aid Region may require the involvement of various organizations and State agencies, e.g., CDPH, EMSA and the California Emergency Management Agency (Cal-EMA). The support of activated Medical and Health Branches at Regional Emergency Operations Centers (REOCs) is coordinated by RDMHC Programs, CDPH, EMSA and Cal-EMA.

In order to accomplish the functions specified in statute, a comprehensive RDMHC Program will:

- Maintain a 24 hour-per-day, 365 day-per-year single point of contact for the RDMHC Program and provide contact information to the MHOAC Programs within the Mutual Aid Region, CDPH and EMSA
- Provide the 24 hour-per-day, 365 day-per-year single point of contact information for the MHOAC Programs in the Mutual Aid Region to CDPH and EMSA
- Provide trained backup personnel capacity during emergencies.
- Coordinate with MHOAC Programs in the Mutual Aid Region to ensure that all 17 MHOAC Program functions are met
- Ensure that situational information is provided in accordance with the processes identified in the RDMHC Program Manual
- Coordinate with MHOAC Programs in the Mutual Aid Region to maintain directories of public health, environmental health and EMS resources, including equipment, supplies, personnel and facilities, within each Operational Area
- Coordinate the identification, acquisition and delivery of public health and medical mutual aid and assistance to affected Operational Areas within the Mutual Aid Region, or if necessary, to affected Operational Areas in other Mutual Aid Regions
- Utilize resource requesting and management procedures in accordance with the processes identified in the RDMHC Program manual
- Coordinate with CDPH and EMSA to support the Medical and Health Branch of the REOC if activated

Area 3 - Coordination with the Community, County and Local Public Health Partners

In the event of a local, state or federal declaration of emergency, the MHOAC coordinates disaster medical and health resources within the operational area (OA) and is the point of contact for coordination with the RDMHC/S and State agencies. The MHOAC role is established by statute in the California Health and Safety Code, Division 2.5, Chapter 3, Article 4, Section 1797.153.

Each local health officer and Local EMS Agency (LEMSA) administrator may function as, or appoint, a MHOAC to provide a 24-hour, seven day a week single point of contact fordisaster medical and health operations within the OA. The county health officer and local emergency medical services administrator will jointly act as the MHOAC or appoint another individual to fulfill the responsibilities.

Responsibilities of the MHOAC include:

- Ensuring a system (plan) for staffing and operations of the medical and health branch of the OA EOC, including authorizing and directing the activation of the medical and health branch of the OA EOC
- Identifying resources and coordinating the procurement and allocation of public and private medical, health and other resources required to support disaster medical and health operations in affected areas
- Communicating the medical and health status and needs within and outside of the OA to local, regional and state governmental agencies and officials and to hospital and medical care entities and providers
- Participating in periodic training and exercises to test plans, policies, procedures and structures for the activation and implementation of the disaster medical and health response system
- Contacting the RDMHC to obtain mutual aid support from other OAs within the mutual aid region or from local and state resources from

It is widely recognized that the responsibilities of the MHOAC are too great for an individual and as a result most OAs have developed MHOAC Programs consisting of several individuals that share MHOAC responsibilities. Many OAs utilize their Public Health and/or EMS Agency Duty Officer programs as the initial, single MHOAC point of contact (POC) for public health and medical emergencies.

In order to accomplish the functions specified in statute, a comprehensive MHOAC Program will: Recommend to the Operational Area Coordinator of the Office of Emergency Services a medical and health disaster plan for the provision of medical and health mutual aid within the Operational Area." Furthermore, "the medical and health disaster plan shall include preparedness, response, recovery and mitigation functions in accordance with the State Emergency Plan, and at a minimum, the medical and health disaster plan, policy and procedures that include all of the following 17 functions during a disaster:

1. Assess immediate medical needs
2. Coordinate disaster medical and health resources
3. Coordinate patient distribution and medical evaluation
4. Coordinate with inpatient and emergency care providers
5. Coordination of out-of-hospital medical care providers
6. Coordination and integration with fire agency personnel, resources, and emergency fire pre-hospital medical service
7. Coordination of providers of non-fire based pre-hospital emergency medical services
8. Coordination of the establishment of temporary field treatment sites
9. Health surveillance and epidemiological analyses of community health status
10. Assurance of food safe
11. Management of exposure to hazardous agents
12. Coordination of mental health services
13. Provision of medical and health public information protective action recommendations
14. Provision or coordination of vector control services
15. Assurance of drinking water safety
16. Assurance of the safe management of liquid, solid, and hazardous wastes
17. Investigation and control of communicable disease

The appointed MHOAC is responsible for ensuring the development of the medical and health disaster plan in cooperation with the:

- County office of emergency services
- Local health department
- Local health officer
- Local environmental health department

- Local department of mental health
- Local emergency medical services agency

In order to accomplish the above listed 17 functions specified in statute, a comprehensive MHOAC Program will:

- Maintain a 24 hour-per-day, 365 day-per-year single point of contact for the MHOAC Program and provide contact information to the RDMHC Program who provides this information to CDPH and ICEMA Duty Officer
- Ensure that contact information is readily available to Public Health and Medical System participants within the Operational Area
- Provide trained backup personnel capacity during emergencies
- Provide situational reports in accordance with the processes identified in this manual
- Maintain a directory of public health, environmental health and EMS resources, including equipment, supplies, personnel and facilities within the Operational Area
- Coordinate the identification, acquisition and delivery of Public Health and Medical mutual aid and assistance within the Operational Area
- Utilize resource requesting and management procedures in accordance with the processes identified in this manual
- Support the Medical and Health Branch of the Operational Area EOC if activated

California Public Health and Medical Emergency Operations Manual Public Health and Medical Coordination

The requesting of resources during a disaster will follow SEMS that includes the Cal-EMA MutualAid Regions and will require communication between regions. Coordinating the care and disaster response across such a vast area and involving so many different agencies/ entities will be particularly challenging – yet critically important to try to provide the best care to as many children as possible in an equitable and orderly manner.

The regional activities include but are not limited to:

- Collect real time information from all hospitals throughout the area regarding patientcounts, hospital needs, etc. (provided by hospitals to the LEMSAs, i.e. HAVBED)
- Determine the admitting criteria/acuity levels for admission to Children's Hospitals vs. non-pediatric hospitals (EMTALA waiver, physician to physician transfer, PHD guidance based on the event).

It is recognized that there is no formalized process or regional entity within the service area to perform this function at the present time. This is considered one of the recognized gaps and opportunities for future planning

- Provide appropriate communication to both the healthcare community and the general public. (Public Health Department, LEMSA, Office of Emergency Services, Joint Information Center)
- Assist in providing clinical technical assistance, i.e. clinical pathways, pediatric clinical consultation, etc. to those hospitals providing care to more acute pediatric patients than they typically do
- Work together within the Regional/State/ Federal disaster response to aid in acquiring and distributing resources as needed. (SEMS)

Transition to SEMS (Standardized Emergency Management System)

The primary assumption for SEMS is that an event has reached an Emergency System Activation Level 2 or 3 event as defined in the *California Public Health and Medical Emergency Operations Manual* (EOM, see table below) outside of traditional general acute care facility day to day operations. It should be noted an event does not need to reach an ESA Level 2 or 3 event prior to using these guidelines. Once an event has become an *Unusual Event*, as described in Unusual Event, the user

should evaluate the incident and determine if the use of the framework is appropriate for the event.

The second assumption understands general acute care facilities have exhausted all day-to-day agreements, MOUs and vendor agreements prior to use of the SEMS processes. Moreover, general acute care facilities have exhausted any and all secondary transfer agreements.

It should also be understood this document does not supersede any of the day-to-day general acute care facilities' and/or pre-hospital processes and regulatory requirements such as code triage and Local Emergency Medical Services Agency (LEMSA) pre-hospital destination policies.

The last assumption is once SEMS is in process, stakeholders understand that all resources, including patient movement and bed availability, will be coordinated through the proper emergency management channels as defined in both the Standardized Emergency Management System (SEMS) and the EOM.

Coordination at this level will be conducted through the MHOAC Program via the Medical/Health Branch at the County EOC (if activated) or the ICEMA or Public Health Department Operations Center (DOC), respectively.

Incident Considerations for entry into SEMS

An Unusual Event* is defined as an incident that significantly impacts or threatens public health, environmental health or emergency medical services.** An unusual event may be self-limiting or a precursor to emergency system activation. (EOM, 2011). ***Note: this condition differs from the specialized use of the term "Unusual Event" in reference to nuclear reactors.

Criteria for an Unusual Event

- The incident significantly impacts or is anticipated to impact public health or safety
- The incident disrupts or is anticipated to disrupt the Public Health and Medical System
- Resources are needed or anticipated to be needed beyond the capabilities of the Operational Area, including those resources available through existing agreements (day-to-day agreements, memoranda of understanding, or other emergency assistance agreements)
- The incident produces media attention or is politically sensitive

***Emergency System Activation* is defined when, Hospital Command Centers (HCCs),**

Department Operations Centers (DOCs) and/or Emergency Operations Center (EOCs), are activated within the Operational Area (OA). (EOM)

Level 1
Requires resources or distribution of patients within the affected Operational Area only or as available from other Operational Areas through existing agreements (including day-to-day agreements, memoranda of understanding or other emergency assistance agreements).

Level 2
Requires resources from Operational Areas within the Mutual Aid Region beyond existing agreements (including day-to-day agreements, memoranda of understanding or other emergency assistance agreements) and may include the need for distribution of patients to other Operational Area.

Level 3
Requires resources or distribution of patients beyond the Mutual Aid Region. May include resources from other Mutual Aid Regions, State or federal resources.

Utilization of SEMS

Each incident will be dependent upon the resources contained within the OA. It should be understood each OA has some capacity and capabilities to care for the sick and injured children.

The HCC should make initital contact with the Medical/Health Operational Area Coordinator (MHOAC), or his/her designee, in the event of any disaster. Once the HCC has exhausted all capacity and capabilities to care for the sick and injured child, resource requesting must go through the MHOAC.

Resource requests can range from staffing, durable and non-durable medical goods, pharmaceuticals, bed availability and transport resources, including specialized transports.

- Once the MHOAC Program has received a resource request from an HCC(s), the MHOAC Program will attempt to fill the request through day to day agreements, MOUs and vendor agreements within the OA. The status of the resource request will be communicated to the HCC(s).
- If the MHOAC Program is unable to fill the resource request from within the OA, the MHOAC Program will contact the Regional Disaster Medical/Health Coordinator (RDMHC) Program for assistance

The Pediatric Disaster Surge Framework will follow the normal pre-hospital and hospital facility transfer processes. For example, regardless of immediate event, such as mass casualty vehicle accident, or long term event, pandemic influenza, the transporting ambulance shall adhere to local pre-hospital destination policies established by the LEMSA. The LEMSA does have the authority to change pre-hospital destination policies if the event warrants.

If the event should require movement of patients from general acute care facilities to other general acute care facilities or specialty hospitals, the sending facility shall follow the normal, EMTALA compliant, inter-facility transfer processes.

- Only when the sending facility has exhausted existing processes should the facility contact the MHOAC Program for transport and bed space coordination

During a disaster, the management of patient transfers will require continual assessment and reassessment of demand, bed availability and acuity needs. All hospitals will need to consider the downgrading, repatriation, transfer and/or potential discharge of existing patients where appropriate as part of their internal surge plan to allow for decompression. For instance, if facilities are able to accept and care for lower acuity pediatric patients, this may provide for decompression to occur at a higher level of facility to care for higher acuity pediatric patients.

For more information, see:
http://www.ena.org/IQSIP/Practice/Documents/PedInterfacilityToolkit2013.pdf

Area 4- Hospital Command Center Structure and Interface with In-patient Units

NIMS and HICS structure
(What is the Connection?)

The National Incident Management System (NIMS) provides a consistent nationwide template for governmental, nongovernmental and private sector organizations to work together during an incident response. Essentially, NIMS is a core set of concepts, principles, terminology and organizational processes that enable interoperability, compatibility and collaborative incident management. One of the many key elements of NIMS is the Incident Command System ICS). ICS is a NIMS management tool that is used in the command, control and coordination of an incident response. ICS is applicable not only across a variety of disciplines, but a variety of incidents as well. This makes ICS an extremely valuable tool because it provides a structure and process for proper incident management that can be used in an all-hazards

approach to coordinate the efforts of many different response agencies.

Currently, the Hospital Incident Command System (HICS) is the standard for hospital-based incident management. HICS is an ICS-based management tool that can be used by all hospitals, regardless of their size or patient care capabilities, to coordinate their response to all incidents. Hospitals utilize HICS to coordinate with the standard ICS used by other response entities. By implementing the concepts and incident command design outlined in HICS, a hospital is positioned to be consistent with NIMS incident command guidelines (EMSA,2006). Hospital implementation of HICS ensures that the hospital is in compliance with NIMS Objectives 7, 11 and 12, but is only one of 11 NIMS compliance standards for healthcare agencies. Hospitals will still be responsible for implementing the remaining NIMS Objectives for 2010 & 2011 which focus on NIMS preparedness, resource management, training and exercises and communications and information management

For more information see:
http://www.fema.gov/pdf/emergency/nims/FY2010_FederalNIMSImplementationObjectivesMetrics.pdf

Each participant should be clearly identified by means such as a vest with the wearer's responsibility written on it (e.g. Medical Technical Specialist: Medical Staff Officer). Each member should also read his/her facility-specific HICS Job Action Sheets that delineate individual responsibilities during the disaster.

The physician leadership should designate a predetermined location in the ED. Here the ED-based strategies are formulated and management objectives are defined under the guidance of the Medical Care Branch under Operations. These strategies are shared with the Hospital Command Center staff to better coordinate surge activities outside of the ED. Once the surge capacity plan is activated, each member of the Hospital Command Center should immediately attend an action plan meeting in the designated area. Any communication with patient families or the press must remain under the control of the Public Information Officer who works with the Incident Commander and the Medical Technical Specialist: Medical Staff Officer. Once convened, the Hospital Command Center priorities should include:

- Ensure that primary response and support departments (nursing, critical care, radiology, respiratory care, security, janitorial services, etc.) have received the alert and are prepared
- Receive briefing from the Situation Team Leader regarding patient census and bed status
- Consider canceling elective procedures and admissions
- Ensure Logistics Section Chief is able to deploy resources as needed
- Ensure contact with senior hospital executives
- Activate the Planning Chief who will designate the Documentation Team Leader individual to maintain the Incident Action Plan for post-incident debrief notes

The HCC should be stocked with sufficient supplies to ensure operations. Supplies should include clerical supplies, redundant and mobile communication systems, Incident Team Chart, hospital and city emergency contact directories, WebEOC and State Operational Area Bed Tracking site log-in information, disaster related tracking forms, hospital charts, patient flow board and reference documents such as triage protocols, surge capacity plans, patient reporting guidelines, HICS Job Action Sheets, area maps, copies of vendor memoranda of understanding and risk communication templates and protocols.

Communication sets should not interfere with other networks used by the police, emergency medical services and fire departments. However interoperability needs to be considered and planning with all community partners is highly recommended. Tactical radio channels such as those used for local communications have many different configurations.

Some systems are dedicated EMS channels, some share channels with fire or police operations and others have special channels for on-scene operations. In a small event, such as a motor vehicle crash, first response agencies may operate on a single channel. As operational complexity increases, incident commanders should decide the point at which communications transition from a single channel to a tactical (or "on-scene") channel. The use of tactical channels prevents the overload of the primary EMS channel and prevents interference between agencies with different primary function. The Incident Commander: Medical Staff Officer from the ED and other agencies should, however, communicate on a pre-designated (mass casualty incident) channel when needed.

Emergency department communication nets should use multichannel portable radios that have talk around capacity, although these systems are susceptible to missed messages if a dispatcher transmits over direct messages. Usually the portable radios used in ED communications are relatively low power and therefore have a limited service radius.

Not all mass casualty incidents demand a hospital-wide response. For example, incidents that involve one or two clinical areas that can be handled with normal hospital staffing and are resolved in less than 8 hours can be often be handled with improved coordination between clinical services. In these limited cases, a Labor Pool can be staffed with minimal personnel to assist the activated HICS members with information management and to relieve workload on specific services (e.g., patient transport or radiology). Examples of these incidents include: alteration of ED operations without immediate threat to life or property, one or two operational areas involved (e.g., ED and radiology), considerable media attention, or an initial response to an unconfirmed external emergency.

Additional Emergency Preparedness Information

The Public Health Emergency Medical Countermeasures Enterprise (PHEMCE) is a coordinated interagency effort by the Office of the Assistant Secretary for Preparedness and Response (ASPR) and includes three primary HHS internal agencies: the Centers for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA) and the National Institutes of Health (NIH). The mission of the PHEMCE is to:

- Define and prioritize requirements for public health emergency medical countermeasures
- Integrate and coordinate research, early- and late-stage product development and procurement activities addressing the requirements
- Set deployment and use strategies for medical countermeasures held in the Strategic National Stockpile(SNS)

The PHEMCE considers medical countermeasures to address CBRN, as well as naturally emerging infectious diseases and pandemic threats, including pandemic influenza.

For more information, see:
http://www.hhs.gov/aspr/barda/phemce/index.html

Emergency System for the Advance Registration of Volunteer Health Professionals (ESAR-VHP) is a federal program created to support states and territories in establishing standardized volunteer registration programs for disasters and public health and medical emergencies. The program, administered on the state level, verifies health professionals' identification and credentials so that they can respond more quickly when disaster strikes. By registering through ESAR-VHP, volunteers' identities, licenses, credentials, accreditations and hospital privileges are all verified in advance, saving valuable time in emergency situations.
http://www.phe.gov/esarvhp/Pages/default.aspx

Disaster Healthcare Volunteers (DHV) system
California has developed the Disaster Healthcare Volunteers (DHV) system to meet its ESAR-VHP requirements. The DHV is administered by the Emergency Medical Services Authority (EMSA) at the state level. Each OA has a designated administrator to coordinate volunteer services at the local level. The MHOAC is responsible for maintaining the list of available resources and this includes volunteers.
http://emsa.ca.gov/disaster/Health_Care_Volunteers/

Homeland Security Presidential Directive-5 (HSPD-5)
A Presidential directive was issued February 28, 2003 on the subject of "Management of Domestic Incidents." The purpose is to "enhance the ability of the United States to manage domestic incidents by establishing a single, comprehensive national incident management system."
http://www.dhs.gov/xabout/laws/gc_1214592333605.shtm

Emergency Management Assistance Compact (EMAC)
A congressionally ratified organization that provides form and structure to interstate mutual aid, through EMAC, a disaster impacted state can request and receive assistance from other member states quickly and efficiently, resolving two key issues upfront: liability and reimbursement.
http://www.emacweb.org/

Emergency Support Function (ESF)
A grouping of government and certain private-sector capabilities into an organizational structure to provide support, resources and services. ESF 8 - Health and Medical Services is the principal ESF with which hospitals will coordinate activities.

Emergency Support Function (ESF) #8 — Health and Medical Services provide coordinated Federal assistance to supplement State and local resources in response to public health and medical care needs following a major disaster or emergency, or during a developing potential medical situation. Assistance provided under ESF #8 is directed by the Department of Health and Human Services (HHS) through its executive agent, the Assistant Secretary for Health (ASH). Resources will be furnished when State and local resources are overwhelmed and public health and/or medical assistance is requested from the Federal Government.
http://www.fema.gov/pdf/emergency/nrf/nrf-esf-08.pdf

California has adopted Emergency Functions (CA-EF) to compliment the federal system and Medical and Health is located in EF #8. For more information on California's EF system:
http://www.calema.ca.gov/PlanningandPreparedness/Pages/Emergency-Functions.aspx

National Incident Management System (NIMS)
A system mandated by HSPD-5 that provides a consistent nationwide approach for Federal, State, local and tribal governments; the private-sector, and nongovernmental organizations to work effectively and efficiently together to prepare for, respond to and recover from domestic incidents, regardless of cause, size, or complexity. To provide for interoperability and compatibility among federal, state, local and tribal capabilities, the NIMS includes a core set of concepts, principles and terminology. HSPD-5 identifies these as the ICS; multiagency coordination systems; training; identification and management of resources (including systems for classifying types of resources); qualification and certification; and the collection, tracking and reporting of incident information and incident resources.
http://www.fema.gov/emergency/nims/

National Response Framework
The National Response Framework (NRF) presents the guiding principles that enable all response partners to prepare for and provide a unified national response to disasters and emergencies. It establishes a comprehensive, national, all-hazards approach to domestic incident response. The National Response Plan was replaced by the National Response Framework effective March 22, 2008. The National

Response Framework defines the principles, roles and structures that organize how the nation responds. The National Response Framework:

- Describes how communities, tribes, states, the federal government, private-sectors and nongovernmental partners work together to coordinate national response
- Describes specific authorities and best practices for managing incidents
- Builds upon the National Incident Management System (NIMS), which provides a consistent template for managing incidents

http://www.fema.gov/emergency/nrf/

References

CA Emergency Functions (CA-EF): http://www.calema.ca.gov/PlanningandPreparedness/Pages/Emergency-Functions.aspx

Children's Hospital Central California www.childrenscentralcal.org

Children's Hospital Los Angeles www.chladisastercenter.org

"Children in Disasters: Hospital Guidelines for Pediatric Preparedness", 3rd Edition (2008), available at: www.nyc.gov/html/doh/downloads/pdf/bhpp/hepp-pedschildrenindisasters-010709.pdf

CHA Emergency Preparedness Resources www.calhospitalprepare.org

Contra Costa EMS for Children http://cchealth.org/ems/emsc-disaster-prepare.php

Hospital Council of Northern and Central California www.hospitalcouncil.net
This site will house the pediatric disaster plan, Steering Committee meeting agendas/summaries and other regional materials.

EMSC Pediatric Disaster Preparedness Guidelines: Hospitals
http://www.emsa.ca.gov/pubs/docs/EMSA198.pdf

Hospital Guidelines for Management of Pediatric Patients in Disasters (Seattle and King County plan)
http://www.kingcountyhealthcarecoalition.org/media/PediatricToolkit.pdf

Los Angeles County Pediatric Surge Plan Pocket Guide:
http://publichealth.lacounty.gov/eprp/docs/Emergency%20Plans/Pediatric%20Surge%20Pocket%20Guide.pdf

http://www.ncdp.mailman.columbia.edu/files/peds_consensus.pdf

Regional Pediatric Disaster Surge Framework
Leveraging our region's assets to care for kids in times of disaster December 2012

Please note that the tools/resources included in the following appendices are provided as recommendations and best practices from nationally recognized resources. They are not prescriptive or a mandate to a specific process.

GENERAL PREPAREDNESS

Unit Specific Mitigation and Hazard Vulnerably Planning

Disasters can strike at any time and lead to extended operation interruptions, unstable infrastructure and catastrophic devastation. When standards of patient care cannot be met or the safety of the hospital infrastructure is compromised, the need to evacuate and transfer patients to other facilities may be necessary.

The evacuation of any patient population is a challenging activity, however the mobilization and evacuation of our vulnerable patients populations – is a high risk activity. Transporting these vulnerable patients requires a carefully planned approach, since these patients frequently depend on complex medical/technical equipment for survival.

It must be determined that receiving facilities are prepared to care for incoming critically ill and complex infants, children and obstetrical patients, so it is important to take overall surge capacity and regional transfer patterns into account when anticipating an increase this patient population.

Mitigation activities include efforts that reduce or eliminate risk to patients, staff and property as a result of emergencies and disasters. Preparedness consists of plans and preparations that are aimed at saving lives and facilitating response and recovery operations. Response efforts focus on saving lives and reducing damage at the time of an emergency.

A central command system is essential to managing emergency efforts and minimizing chaos during any evacuation. Experts recommend following the National Incident Command System (NIMS) and Hospital Incident Command System (HICS) guidelines to coordinate and manage any incident or event, assist in resource allocation and develop consistent patient tracking processes. It is highly recommended that leadership staff complete FEMA training courses:

IS 100HC, IS 200HC and NIMS 700
Visit http://training.fema.gov/IS/crslist.asp for online course listings. For more information see the Education and Training section of this guidebook.

As part of emergency planning, hospitals that are accredited by the Joint Commission must have an Emergency Operations Plan (EOP), which is a document that provides the structure and processes used by the facility to respond to and recover from all hazards. Each facility's EOP is intended to provide a framework for dealing with hospital-wide emergencies. However, it is difficult for a hospital-wide plan to address the needs of individual hospital departments or patient populations. Therefore, in addition to the hospital-wide plan, each hospital department and nursing unit must consider taking steps to develop an individualized and detailed EOP to minimize the impact on department or unit operations. The development of such a plan is as follows:

- Planning and education at the unit level should include ALL disciplines and must be aligned with the hospital-wide EOP. It is important to follow the National Incident Command System (NIMS) and Hospital Incident Command Systems (HICS), so working with the emergency planning personnel is essential.
- Develop a unit disaster planning committee
- Take Hospital Incident Command System Class through your hospital Education Department which is funded through Hospital Preparedness Program

- Develop partnerships with those at your facility who are responsible for disaster planning and response and update current unit plans

Hospitals that anticipate an influx of sick infants, children and/or pregnant or laboring women must have staff on hand with the skills necessary to care for these patient populations. It is likely that the number of pediatric or obstetrical patients requiring admission will exceed the capacity or expertise of hospital staff in hospitals without specialty pediatric or obstetrical services. Thus, the transfer of these patients to a higher-level of care facility may become necessary.

For additional information see: **Pediatric and Obstetric Emergency Preparedness Toolkit Section 2-Planning Guidelines**: http://www.health.ny.gov/facilities/hospital/emergency_preparedness/guideline_for_hospitals/docs/emergency_preparedness_manual.pdf

- Hospitals should establish relationships ahead of time with facilities that can accommodate neonatal-pediatric-obstetrical patients to enable smooth transfer (in accordance with a signed transfer and affiliation agreement), if transport conditions permit
- Consider creating a staff roster to poll employees for specialized neonatal-NRP, pediatric-PALS, or obstetrical experience/certifications and update the roster annually

Due to the need for specialized equipment and supplies necessary for caring for a specific patient population, each unit should evaluate their ability to routinely stock additional equipment such as ventilators, monitors, incubators, pumps, phototherapy lights, evacuation equipment build up caches of supply items and increase par levels for critical items, such as pharmaceuticals. This prevents the need for relying on city, county, state or federal entities to build up and maintain caches. Work with county EMS representatives regarding population-specific equipment and supply type.

- Plan to review critical equipment stock, including current vendor supply list with hospital departments and county representatives

Carefully and systematically evaluate surge capacity (considering square footage, outlets, oxygen and gas sources) to accurately determine ways to safely optimize the number that can be cared for on a given unit.

- Map out vertical evacuation and medical surge areas for number of outlets (including red plugs), suction, and medical air in advance and place in unit plan

Hospitals typically have hospital-wide Emergency Operations Plans (EOP) that is well understood by a select group of people. Hospital and unit leadership need to work on Unit specific planning, addressing the critical needs of this specialized population.

- Review template suggestions for creating a unit specific Emergency Operations Plan in the proceeding section of this guidebook

Definitions

All-Hazards: An approach for prevention, protection, preparedness, response and recovery that addresses a full range of threats and hazards, including domestic terrorist attacks, natural and manmade disasters, accidental disruptions and other emergencies.

Assisting Agency: An agency or organization providing personnel, services, or other resources to the agency with direct responsibility for incident management.

Cache: A predetermined complement of tools, equipment and/or supplies stored in a designated location, available for incident use.

Emergency Operations Plan: An ongoing plan for responding to a wide variety of potential hazards.

Evacuation: The organized, phased and supervised

withdrawal, dispersal or removal of civilians from dangerous or potentially dangerous areas and their reception and care in safe areas.

Incident: An occurrence, natural or manmade, that requires an emergency response to protect life or property. Some examples of incidents include, but are not limited to, earthquakes, hurricanes, tornadoes, tsunamis, wild land and urban fires, floods, nuclear accidents, hazardous materials spills, aircraft accidents, war-related disasters, terrorist attacks, civil unrest and public health emergencies.

Mitigation: Mitigation is the effort to reduce loss of life and property by lessening the impact of disasters. Mitigation is taking action ahead of time to reduce human safety and financial consequences after disasters. Thus, mitigation efforts prevent or minimize losses, in the event that an incident does occur. These actions reduce or eliminate the need for emergency response and greatly reduce the recovery period.

National Incident Management System: The National Incident Management System (NIMS) identifies concepts and principles that guide how to manage emergencies from preparedness to recovery. The NIMS provides a consistent, nationwide approach and vocabulary for multiple governmental, nongovernmental, or private sector agencies from multiple jurisdictions to work together in response efforts, regardless of cause, magnitude, or location of an incident. This ensures effective and integrated preparedness, planning and response and reduces the loss of life or property and harm to the environment.

Preparedness: A continuous cycle of planning, organizing, training, equipping, exercising, evaluating and taking corrective action in an effort to ensure effective coordination during incident response. Within the National Incident Management System, preparedness focuses on the following elements: planning; procedures and protocols; training and exercises; personnel qualification and certification; and equipment certification.

Prevention: Actions to avoid an incident or to intervene to stop an incident from occurring. Prevention involves actions to protect lives and property. It involves applying intelligence and other information to a range of a or quarantine; and, as appropriate, specific law enforcement operations aimed at deterring, preempting, interdicting, or disrupting illegal activity and apprehending potential perpetrators and bringing them to justice.

Resources: Personnel and major items of equipment, supplies and facilities available or potentially available for assignment to incident operations and for which status is maintained. Resources are described by kind and type and may be used in operational support or supervisory capacities at an incident or at an Emergency Operations Center.

References

Chicago Healthcare System Coalition for Preparedness and Response NIMS Committee. (2008). National Incident Management System [pdf]. Retrieved from http://www.luhs.org/depts/emsc/National_Incident_Management_System(NIMS)_Resource_and_Implementation_Guide.pdf

Phillips, P., Niedergesaess, Y., Powers, R. and Brandt, R. (2012). Disaster preparedness: Emergency planning in the NICU. *Neonatal Network, 31*(1).

New York State Department of Health Emergency Preparedness Program. (2010). Pediatric and obstetric emergency preparedness toolkit: A guide for pediatric and obstetric emergency planning [pdf]. Retrieved from http://www.health.ny.gov/facilities/hospital/emergency_preparedness/guideline_for_hospitals/docs/emergency_preparedness_manual.pdf

Unit Specific Emergency Operations Planning

The Emergency Operations planning section provides the ins and outs of unit-specific disaster preparation in accordance with regulatory agencies. This information is meant to be an introductory example of how a departmental-specific disaster plans can be updated.

Introduction: The plan begins with an introduction that defines and contextualizes the unit by incorporating basic information, providing the reader with an overview of the unit's function, patient population and requirements for the provision of care. Information considered and contained in the introduction includes:

- Type of unit
- Population it serves
- Unique patient needs that complicate the provision of care
- Patient acuity
- Average unit census
- Potential to temporarily increase census (surge capacity)
- Usual staffing ratios and numbers of staff required for care
- Staffing ratios that may occur as a result of shortage of care providers
- Basic consumption rates and predetermined supply levels that would be needed to sustain the unit for at least 96 hours

Mission Statement: A mission statement spells out the overall purpose of the program and ensures a sense of direction in terms of what the department is attempting to achieve through its efforts. This short and formal mission statement focuses on providing safe care under all circumstances and guides the unit's emergency planning program.

- Every facility will have a different mission statement

Plan: Hospitals are responsible for responding to emergencies in a manner that protects the health and safety of patients, visitors and staff. Emergency Operations Plans provides a set of basic principles that guide emergency planning efforts. The plan addresses the unit's guide for activating the plan, implementing response and recovery procedures and restoring disrupted services. The plan briefly outlines the unit's guide for working in collaboration with the Hospital Command Center and external agencies in the event of an emergency.

- Review hospital EOP to integrate into the departmental plan

Scope: It is important to set the tone for emergency planning efforts and provide focus for the work that leads to the formation of the Emergency Operations Plan. The scope takes the unique requirements of emergency planning into account to establish criteria and incorporates the principles and considerations of mitigation, preparation, response and recovery. Thus, in the creation of the Emergency Operations Plan, the scope is aimed at:

- Providing a multi-hazard approach to disaster planning
- Considering and prioritizing all threats to the department and/or the facility
- Creating responses that are integrated with hospital emergency planning efforts
- Incorporating Hospital Incident Command System and National Incident Management System concepts and principles
- Satisfying emergency management requirements of the Joint Commission and Centers for Medicare and Medicaid Services

- Ensuring maximum compatibility with national and local government response plans
- Meeting other local and state codes and regulations

Mitigation: Mitigation includes ongoing efforts that reduce or eliminate risk to patients, staff and property as a result of emergencies and disasters. Emergency Operations Plans must be written with an all-hazards approach to mitigation and based on the perceived internal and external threats identified by the Hazards Vulnerability Analysis. Planning and training priority is given to the top ranking threats for the unit, hospital characteristics and any pertinent hazards related to geographical region. Mitigation activities may include, but are not limited to:

- Process involved in obtaining critical care equipment (i.e. ventilators)
- Alarmed entrances
- The presence of security cameras
- Personnel stationed to detect breeches in security
- Chemicals remaining in original containers or labeled appropriately when transferred
- Availability of Personal Protective Equipment (PPE) in each room
- Clearly labeled emergency supplies to ensure visibility
- Availability and placement of fire extinguishers
- Keeping loose paper to a minimum to avoid combustibles
- Securing equipment, furniture, shelves and pictures to the walls
- Policies to lock wheels on equipment

Roles and Responsibilities: In case of emergency, some or all of the positions associated with the Hospital Incident Command System may be activated in the Hospital Command Center (HCC). In addition to the Hospital Command Center and hospital-wide roles, each unit must identify and define roles and responsibilities for key staff positions that may be needed to respond to emergencies. Whether hospital-wide or within a particular unit, these roles are created as Job Action Sheets and/or Job Cards utilizing the Hospital Incident Command System and outlined using common terminology. In addition, staff must receive training to rehearse their roles and responsibilities at staff meetings, departmental workshops and periodic drills and exercises. The Hospital Incident Command System positions that may be activated and those who are capable of assuming those roles may include:

- Medical Care Branch Director (Unit Manager)
- Physician Unit Leader (Physician)
- Inpatient Unit Leader (Charge Nurse)
- Bedside Nurse Room Leader (RN)
- Bedside Nurse (RN)
- Logistics Unit Leader (Relief/Transport Nurse)
- Respiratory Unit Leader (Respiratory Therapist)
- Unit Clerical Leader (Secretary/Unit Clerk)

Preparedness: Hospital preparedness consists of plans and preparations that may ultimately save lives and facilitate response and recovery operations in a timely and organized manner. Preparedness efforts address (a) emergency staffing resources, (b) preservation of vital records, (c) communication systems, (d) staff training and education, (e) facility and community-wide integration efforts, (f) resource and asset management and (g) 96-hour contingency planning. Therefore, a large portion of the Emergency Operations Plan is devoted to preparedness efforts.

Emergency Staffing Resources: In the event of a staff shortage, preparedness efforts in the Emergency Operations Plan address medical and non-medical care providers that may be utilized during an emergency or disaster along with contact information for such providers. Contingency emergency staffing resources to be considered may include:

- Calling in off duty unit staff

- Internal rapid response team members
- Contracted staffing agencies
- Medical Reserve Corps (MRC)
- Trained hospital volunteers
- Parents and family members
- Specialized transport teams
- Disaster Medical Assistance Teams (DMAT)

Preservation of Vital Records: Hospitals must identify the most critical information needs for patient care, treatment and services when creating an Emergency Operations Plan. Plans must be in place to identify alternative means for processing data, providing for recovery of data and returning to normal operations. Many hospitals rely on electronic medical records. In the event of an emergency or disaster, these electronic charts may not be available. The types of vital records that will accompany patients in the event of a disaster, how charting will occur when computer systems are down and how records will be stored must be considered.

The Hospital Incident Command System Documentation Forms are used to collect patient information and track patients, victims and fatalities. Hospital Incident Command System forms are also used to account for communications, decisions, operational activities, personnel time and resources utilized. In addition, after a disaster, these forms may be valuable tools when seeking reimbursement from government agencies. Hospital Incident Command System forms and downtime charting forms necessary for the preservation of vital records are included in the Disaster Documentation and Forms Go-Kit.

Communications Systems: In case of an emergency, redundant communication strategies must be established to direct staff and communicate information to patients, families and external agencies. It is important to address all communications systems available to staff as well as the person or department that is responsible for maintaining such systems or devices. Landline phones, cell phones, 2-way radios, fax machines, mass notification systems, television/radio stations and internet websites all the way down to couriers or runners are all methods that may be listed as communication systems in hospitals. These devices may be used alone or in combination, should one or more systems fail. This information should be included in unit-specific emergency plans as well as in the hospital-wide Emergency Operations Plan.

Training and Education: The unit's accountability to train staff on facility emergency codes, Hospital Incident Command System positions and functions, unit Emergency Operations Plan procedures, equipment use and utilization of communication devices must be addressed in the plan. Staff training provides an opportunity to enhance competencies and emergency response skills. This training is often accomplished in workshops, skills labs and staff meetings. The plan is tested during drills, exercises and tabletops, which provide opportunities to evaluate emergency performance and capability and ensure the competency of staff in the use of emergency equipment and supplies.

Facility-Wide and Community Integration: It is essential to maximize healthcare resources and ensure the coordination of scarce resources during a disaster. It is also important to share planning efforts and lessons learned with other units within the hospital and the community. In addition, in order to streamline communication between hospitals and facilitate movement of patients to alternate care settings, hospitals must consider developing plans for responding collaboratively to disasters within large geographic regions (Cohen, Murphy, Ahern &Hackel, 2010). This may involve establishing alliances with healthcare agencies spanning several counties. The Emergency Operations Plan outlines efforts that integrate the unit with the hospital's overall emergency management program activities, alliances forged with other similar units and collaborative efforts with other organizations and community partners.

Resources and Assets: Resource and asset management strategies that allow hospitals to continue to care for patients and support staff are essential to the Emergency Operations Plan. It is important to identify, inventory and maintain emergency supplies and equipment as part of emergency planning. Standard par levels of medical supplies (72-108 hour supply), critical portable equipment located on the unit (including battery life) and emergency supplies that are essential to the provision of care are identified in the Emergency Operations Plan. The person or department that is responsible for managing, maintaining and conducting annual inventory of supplies for the unit must be identified and a rotation schedule for expired supplies must also be included in the plan.

Since medication administration is a key component of care most hospitalized patients, it is essential to incorporate planning for pharmaceuticals in the Emergency Operations Plan. This may include medications designated for transport or medications ordinarily located in code carts. In addition, the hospital pharmacy must create a plan that addresses the need to provide medications for hospitalized patients in case of emergency. The pharmacy must stock, inventory and prepare lists of medications most commonly used in hospital units. These medications are to be utilized when resources become scarce as part of the hospital's emergency planning efforts.

Transport: In the event of an emergency or disaster, alternative arrangements for transport of patients to other hospitals may become necessary. Establishing community relationships and mutual aid agreements to ensure the ability to reliably and safely transport patients to a safer location for care is important in preparedness efforts. Guidelines for transporting patients to other hospitals are addressed in the Emergency Operations Plan. In case of emergency, the hospital's Incident Commander is responsible for decision-making and coordinating patient transports. However, it is important to have documentation and consent forms for transport readily available in the Disaster Documentation and Forms Go-Kit for easy access and completion.

- Develop a transport documentation forms kit. This forms kit will be utilized by the Medical Technical Specialist in the Hospital Command Center. Forms such as transport consents, phone numbers of referring hospitals, and distances to outlying facilities should be included.

96-hour Contingency Planning: The Emergency Operations Plan must identify the hospital's capability to provide care for at least 96 hours and establish contingency plans to sustain or stretch resources until help arrives or services are restored. Therefore, protocols that outline procedures for stretching resources or curtailing services that allow for the continued provision of care with limited supplies and equipment are addressed in the Emergency Operations Plan. Procedures for conserving and rationing resources that may become scarce must be planned and staff must be educated regarding the conservation of supplies in advance. In the event that resources are at risk of depletion in the Emergency Operations Plan directs staff to implement strategies aimed at eliminating waste and consolidating and/or rationing supplies. Other contingency plans, such as Memorandums of Understanding with vendors and stockpiles located externally, are also addressed in the Emergency Operations Plan.

Response: Response efforts encompass activities aimed at saving lives and reducing damage from an emergency or disaster. This includes providing emergency assistance to victims, restoring critical infrastructure and ensuring the continuation of critical services. Hazards that would most likely threaten a particular unit are identified and specific response procedures that are unique to that particular patient population, location and floor plan must be created as checklists. Any required reporting forms must also accompany these response procedures. Factors that make response plans unique may include:

- Inability of patients to ambulate
- Patient requirements for certain types of complex support
- Risks to patients as a result of exposure to certain circumstances
- Large and complicated equipment that is difficult to move or obtain
- Floor plan/layout of the unit (without or without individual room doors)

Evacuation: When the infrastructure of the hospital is compromised and patients are in danger or an adequate standard of patient care cannot be provided, it may become necessary to evacuate patients to a safer area. However, an evacuation is a very challenging and high risk activity for many units. Thus, special consideration must be given to planning for this particular response procedure. For an emergency evacuation to be effective, it would require the coordination of all staff members, the rapid mobilization of equipment and a flexible evacuation response plan. Careful consideration must be given to establishing clear roles and responsibilities, rehearsing of roles and quick and easy access to emergency equipment, supplies and documentation forms prepared in advance.

In case of emergency, the hospital's Incident Commander is responsible for making the decision whether or not to evacuate. Unless there is imminent danger, this decision can be made by someone on the unit who is responsible. Evacuation procedures will differ depending on the type of evacuation. Horizontal evacuations occur when moving patients and staff to a safer area on the same floor is sufficient. Vertical evacuations involve moving those in danger to a lower or higher area. Vertical evacuation is often performed when the entire hospital structure is threatened and all floors need to be emptied. A great deal of equipment can be mobilized during a horizontal evacuation, if time allows. However, when vertical evacuation becomes necessary, elevators may be unsafe or unusable. In this case, it may be safer to use stairs. Therefore, if a vertical evacuation becomes necessary, some types of equipment, such as ventilators, and monitors would most likely be left behind.

The procedure for evacuating a unit and methods for continuing to provide various types of support must be outlined in the evacuation response procedure and the staff must be trained accordingly. The following considerations are listed to facilitate a safe evacuation:

- More than one staff member may be needed to evacuate patients requiring oxygen
- Self-inflating ambu bags with or without oxygen may be used to deliver manual breaths
- The temporary use of nasal cannula or "Bubble CPAP" may be considered for patients receiving Continuous Positive Airway Pressure (CPAP)
- Methods for portable suction should be available for use in evacuation
- Non-critical IV infusions may be stopped, temporarily, for the purpose of evacuation
- Intermittent infusions of IV fluids may be necessary, if no pumps are available
- Chemical warming mattresses or mylar blankets may be used to prevent hypothermia
- Neopuff or T-piece resuscitator is the preferred method for intubated neonatal patients
- Critical infusions need to be continued on a pump with battery backup
- Epidural infusions need to be stopped and tubing secured
- Perform intermittent fetal heart rate monitoring for OB patients using a doppler

To address a potential evacuation, a list of critical evacuation equipment must be compiled. Since those who respond to help in an emergency may be labor pool employees or outside emergency responders, it is wise to have photos of each piece of equipment to aid in equipment identification and a more rapid response. Finally, guidelines that detail procedures for providing routine and emergency care during and after evacuation

must be evaluated and included in the Emergency Operations Plan.

In case of evacuation, the hospital's Incident Commander, working in collaboration with the Physician Unit Leader, is responsible for deciding which patients to evacuate first. The sequence of evacuation will depend on patient acuity and type of emergency. When evacuating an entire hospital, the sequence of evacuation usually begins on the ground floor, working upward. When time allows, the most critical patients are usually evacuated first. There are other circumstances, however, when the sequence of evacuation focuses on saving the greatest number of lives in a short amount of time. In this case, the decision is often made to evacuate lower acuity patients first. This may be deemed necessary when patients are in immediate danger or building structure is clearly compromised (Agency for Healthcare Research and Quality, 2010).

Demobilization and Recovery: Demobilization refers to activities that focus on disengaging resources after objectives are met and operations return to normal function, while recovery efforts include more long term activities, such as rehabilitating personnel, repairing equipment and restocking resources. In order to facilitate recovery and system improvement, the following steps are listed in the Emergency Operations Plan and are considered priority in the recovery phase after an emergency:

- Treating and reporting injuries
- Implementing staff shortage plans
- Providing emotional support for patients, visitors and staff and uniting families
- Inventorying supplies and equipment/Reordering or replacing supplies
- Evaluating equipment function/Removing and repairing broken equipment
- Evaluating the use and effectiveness of Hospital Incident Command System forms
- Assuring charts have copies of Hospital Incident Command System and paper charting
- Returning to normal staffing levels as soon as possible
- Conducting debriefings for staff involved in the incident
- Compiling After Action reports
- Implementing Corrective Action Plans and establishing target completion dates

Definitions

HICS: The Hospital Incident Command System (HICS) is an incident management system based on the Incident Command System (ICS) that assists hospitals in improving their emergency management planning, response and recovery capabilities. In an emergency, HICS Documentation Forms are used to collect patient information, track patients, victims and fatalities and to account for personnel time, utilization of resources and track communication and operational activities.

Horizontal Evacuation: The evacuation of patients, visitors and staff from one room or unit to another on the same floor.

HVA: A Hazard Vulnerability Analysis (HVA) serves as a "needs assessment" for emergency planning and provides a systematic approach to recognizing hazards that may impact hospital services or its ability to provide those services. The risks associated with each hazard are prioritized and planning, mitigation, response and recovery activities are aimed at the most likely hazards to impact the facility.

Job Action Cards: Based on Job Action Sheets, these cards serve as a quick reference for staff to identify duties in the event of an emergency or disaster.

Mitigation: Mitigation is the effort to reduce loss of life and property by lessening the impact of disasters. Mitigation is taking action ahead of time to reduce human safety and financial consequences after disasters. Thus, mitigation efforts prevent or minimize losses, in the event that an incident does occur. These

actions reduce or eliminate the need for emergency response and greatly reduce the recovery period.

NIMS: The National Incident Management System (NIMS) identifies concepts and principles that guide how to manage emergencies from preparedness to recovery. The NIMS provides a consistent, nationwide approach and vocabulary for multiple governmental, nongovernmental, or private sector agencies from multiple jurisdictions to work together in response efforts, regardless of cause, magnitude, or location of an incident. This ensures effective and integrated preparedness, planning and response and reduces the loss of life or property and harm to the environment.

Partial Evacuation: The removal of patient or patients from the scene of an emergency to an area of refuge within the same unit or department.

Preparedness: A continuous cycle of planning, organizing, training, equipping, exercising, evaluating and taking corrective action in an effort to ensure effective coordination during incident response. Within the National Incident Management System, preparedness focuses on the following elements: planning; procedures and protocols; training and exercises; personnel qualification and certification; and equipment certification.

SEMS: The Standardized Emergency Management System (SEMS) is a system required by the state of California for managing emergencies involving multiple jurisdictions and agencies. All state government agencies must use SEMS when responding to multi-jurisdictional or multi-agency emergencies. All local government agencies must use SEMS in multi-jurisdictional or multi-agency emergency responses to be eligible for state reimbursement of response-related personnel costs.

Vertical Evacuation: The evacuation of patients, visitors and staff from one floor to another floor.

Resources

Agency for Healthcare Research and Quality. (2010). Hospital evacuation decision guide.Retrieved October 29, 2010 from http://www.ahrq.gov/prep/hospevacguide/hospevac4.htm.

Cohen, R. S., Murphy, B. Ahern, T. &Hackel, A. (2010). Disaster planning: Triaging resource allocation in neonatology. *Journal of Investigative Medicine, 58*(1), 188.

Phillips, P., Niedergesaess, Y., Powers, R. and Brandt, R. (2012). Disaster preparedness: Emergency planning in the NICU.*Neonatal Network, 31*(1).

Staffing, Education and Training

Disasters can strike at any time. During the 2005 hurricane season, which included devastating storms such as Hurricane Katrina and Rita, pregnant women, newborns and pediatric patients were among the most vulnerable populations. Involvement of perinatal and pediatric professionals in disaster management is crucial to minimize these risks to women, newborns and children. Training for disaster preparedness is the only way to ensure staff, unit and hospital readiness. Disaster preparedness starts at the top but also requires leadership from key unit staff to ensure the proper training and education is received. The recommendations included in this section suggest training to ensure that neonatal, pediatric and obstetrical patients receive appropriate care at all hospital facilities during a mass casualty, disaster or terrorism related event. General medical and disaster training as well as patient population-specific education options are recommended to enhance hospital response.

Key Unit Leadership Roles

Without proper leadership and guidance on how to plan and implement a unit-specific Emergency Operations Plan, a unit may struggle. It is important for each unit to designate a group of staff members to serve as the Unit Emergency Preparedness Planning Committee. From this group, two key leaders should emerge: a physician and a nurse to serve as planning coordinators. Below is a description of each member's role:

Physician Coordinator – A qualified unit physician staff approved by the unit Emergency Preparedness Planning Committee will assume the following responsibilities:

- Assist with development of policies and procedures that include "grab and go" medications, specialized equipment lists, patient disaster backpack supply list, document kit, job action cards for staff, etc.
- Lead and assist with the development and updating of the individual unit Emergency Operations Plan, granting special attention to the needs of specialized unit population
- Serve as a liaison to appropriate in-hospital and out-of-hospital pediatric/obstetric care committees in the community/state (if they exist)
- Serve as a liaison/Medical Technical Specialist to the Hospital Command Center.
- Take required ICS classes: 100IS, 200IS, 700IS and serve as a *Medical Technical Specialist* (see below for detailed explanation) in the Hospital Command Center when requested during an emergency
- Facilitate pediatric/obstetric emergency education for neonatal/pediatric/obstetrical unit healthcare providers
- Present/Publish current disaster planning efforts for "lessons learned" educational review
- Serve as a liaison for other smaller community hospitals should they need phone or telemedicine assistance to stabilize a neonatal/pediatric or obstetrical patient awaiting transfer
- Participate in the Local Department of Public Health County Surge Plan to ensure needs for specialty patient populations are considered
- Identify, in advance, appropriately qualified staff that can/will accept responsibility for the immediate or extended care of pediatric/obstetric patients during a disaster

Nursing Coordinator – A qualified member of the nursing staff approved by the unit Emergency Preparedness Planning Committee will assume the following responsibilities:

- Ensure adequate skill and knowledge of hospital's nursing staff in the specific Emergency Operations Plan of the specialized unit and ensure staff participates in tabletop/full scale statewide wide exercise
- Identify, in advance, appropriately qualified staff that can/will accept responsibility for the immediate or extended care of pediatric/obstetric patients during a disaster
- Lead in the development and updating of the hospital's unit Emergency Operations Plan policies and procedures
- **Participate in Medical and Health Statewide Exercise** (November of every year) to keep knowledge and disaster skills current. By continually practicing drills it allows for interfacing with the Hospital Command Center and outside emergency agencies to properly address gaps in caring for specialized patient populations
- Serve as a liaison to appropriate in-hospital pediatric/obstetric care committees
- Participate in the Local Department of Public Health County Surge Plan to ensure needs for specialty patient populations are considered
- Serve as a liaison to inpatient nursing as well as to facilitate transfer for the continuum of care of the patient
- Assist with development and periodic review of pediatric medications, equipment and supplies as a member of the Emergency Preparedness Planning Committee
- Review current policies and procedures for emergency childbirth and identify staffing needs
- Identify gaps in Emergency Preparedness planning at the unit and Hospital Incident Command Center level and train staff and during for annual competency training, Skills day, staff in-service education emails/boards, yearly drills

Medical Technical Specialist – The Medical Technical Specialist (MTS) is a physician who advises the Incident Commander on issues related to specialty specific emergency response. The MTS will also work with the Liaison Officer, to provide transport needs, surge availability, and current unit status.

Neonatologists will assist the hospital Liaison Officer located in the Hospital Command Center (HCC) and the Medical Health Operational Area Coordinator (MHOAC) located in the Emergency Operational Area, by utilizing the California Perinatal Transport System and ReddiNet to move high-risk pregnant women and critical neonatal patients to the appropriate level of care. The bed availability, listed in California Perinatal Transport System, is updated daily by all neonatal intensive care units within California. The bed availability in California Perinatal Transport System needs to be correlated against or entered into ReddiNet*. During a disaster, the Neonatologist who is serving as the MTS in the HCC will utilize the California Perinatal Transport System and ReddiNet to act as a resource in assisting the County and State in triaging and transporting patients. For more information see http://www.perinatal.org/

*Bed polling information for the NICU units ***MUST*** still be entered in ReddiNet and on EMResource or other emergency communications modality used in the Operational Area, by the ED Charge Nurse or designee. This process will follow the Standardized Emergency Management System (SEMS) and is critically important to update the Statewide HAvBED bed polling system within a specific time frame.

Pediatric Intensivist serving as the unit Medical Technical Specialist (MTS) will assist in triage classification and unit request for transfer or evacuation of critical pediatric patients to the appropriate level of care. The physician will work with the Hospital Liaison Officer in the Hospital Command Center (HCC) and the Medical Health Area Operational Coordinator (MHAOC) located in the Emergency Operational Area to facilitate transport and assign bed placement through ReddiNet. ReddiNet is updated daily through the Emergency Department or HCC. It serves as an emergency communication network allowing hospitals, paramedics, EMS agencies, dispatch centers, law

enforcement, public health officers and homeland security to all communicate quickly and effectively during disaster situations on both a local and regional levels.

For more information, see:
http://www.reddinet.com

For hospitals without pediatric or obstetric-specialized care, the Medical Technical Specialist will act as a point-person for clinical care. This unit leader will facilitate accurate communication for non-clinical areas along with overseeing disaster response in areas such as procurement, transportation, materials/supplies and nutrition.

In order to hold the position of the unit Medical Technical Specialist the following coursework and the respective final exams are listed at http://training.fema.gov/EMIWeb/IS/crslist.asp and are entitled:

- IS-100.HC Introduction to the Incident Command System for Healthcare/Hospitals (HICS Awareness)
- IS-200.HC Applying ICS to Healthcare Organizations
- IS-700 National Incident Management System (NIMS), An Introduction

We recommend documenting a comprehensive plan that outlines a timeline for specific target personnel (Medical Technical Specialist) to have completed specific coursework at your facility.

Target Staff Requirements

HICS Awareness recommend taken by **all staff** (training not required for funding)

ICS-100 must be taken by staff who will occupy a command, section chief, unit leader, supervisor or branch director position in Hospital Incident Command Center (HICS) during an event (i.e. those who fill a box on the organizational HICS chart).

This staff might occupy a command position (e.g. serve as Incident Commander or Section Chief) at the beginning of the "immediate" period of the event but would be *relieved by designated staff with additional expertise and training* as the event moves further into operations during the immediate period

ICS-200/ICS-700 must be taken by staff who will occupy a command or section chief position in HICS during an event (i.e. those who fill a box on the organizational HICS chart designated as section chiefs or command staff). This staff is intended to occupy the command and section chief positions during the immediate phase of the event – the phase where incident management / action planning is occurring.

Once these courses have been completed an electronic certificate of completion will be sent via email to the participant. It is mandatory for a copy of this certificate to be kept on file through the hospital Emergency Disaster Planner.

- For those hospitals with neonatal and pediatric intensive care units, the Medical Technical Specialist will serve as a possible tele-medicine advisor to outlying facilities that have received a surge of critical pediatric patients. Again, if these patients require transport to a higher level of care, the Medical Transport Specialist will assist the Hospital Command Center and EMS agencies in categorizing patients according to level of acuity and subsequent transport needs.

Staff Shortage

In the event of a staff shortage, preparedness efforts in the EOP address medical and nonmedical care providers that may be used during an emergency or disaster along with contact information for such providers. Contingency and emergency staffing resources to be considered for specialty care units may include the following:

- Staff Roster
- Rapid Response Team

- In-House Transport
- Specialized Transport Team
- Available in house facility-wide labor pool
- Medical Reserve Corps (MRC)
- Disaster Medical Assistance Team (DMAT)
- Approved facility-wide volunteers
- On-site parents and family members

These medical and nonmedical resources are potential resources that should be considered and utilized after collaborating with the HCC. Some of them can be broken down further and implemented at the unit level. For example, every unit has a staff roster. The staff roster can be enhanced for disaster preparedness by sorting staff according to their home address and proximity to the hospital. This helps to ensure that not all staff shows up during the immediate operational period. A unit specific call back system is implemented for continued staffing needs. Mass communication notification system is best. If this is not already in place, then utilize the call back system. See Appendix D for ideas on creating a staff call back tree. The process for opening the Hospital Incident Command Center must be initiated from the administrator in charge. Once the medical physician in charge has identified a patient surge or evacuation, hospital operators will contact department chairs, division chiefs and unit directors. These persons will, in turn, contact their associate directors, nurse managers, or another associate. That person will contact two to three individuals under their supervision, each of whom will repeat the practice until all personnel have been notified. An important element of the disaster notification process is to make staffing requests based on distance from the hospital for:

1. Staff who can immediately respond to the disaster and able to reach the hospital within a defined period, such as within 30 minutes, within 60 minutes or greater than 60 minutes.
2. Staff who will be responsible for relieving the current staff at the next operational period.
3. Staff that are not being requested, but should remain on alert in case they are needed.

To serve as a redundant system for employee notification, all employees should report to their immediate supervisor or department manager when a large-scale disaster is declared. If the supervisor or manager is not in the hospital, that person should be contacted by telephone or hospital pager. Each department or workgroup should have specific responsibilities assigned to them; if there are no responsibilities assigned, then members of that department should report to the labor pool. Employees who are called into the hospital should have parking available in the most convenient lot. No employees should make any comment or responses to the media, nor should they respond to requests for patient information.

For an example of a Medical Technical Specialist HICS Job Action Sheet:

- Appendix A- NICU MTS example
- Appendix B- PICU MTS example
- Appendix C- Obstetrics MTS example
- Appendix D- Additional ideas on creating a staff call back tree

Specialized Rapid Response Teams

Some specialized units, such as a NICU or PICU or Labor and Delivery, have specialized rapid response team or in-house transport teams that include a physician, a nurse and a respiratory therapist with specialized supplies needed to care for the specific patient population. These teams are critical in responding to day-to-day emergencies and are always on-call as unit response teams. During a disaster situation, these teams are critical to help with patient movement, transport, emergency codes and off-loading patients in the emergency room.

- Consider developing a unit-specific rapid response team to address population-specific issues that may arise on other areas within the hospital.

In a large-scale disaster, hospital staff resources are always utilized first. Sometimes if a specific unit is requesting additional staff clinical licensed professionals from other departments of the hospital may be cross-trained to provide additional resources. This training is given in the form of "Just-in-Time" training modules specific for that unit's needs (i.e. similar to training a float nurse for a shift). These staff members will be supervised by specialized unit staff members. Therefore is crucial for each unit to maintain a staff roster on those staff that are cross-trained to other areas and may be utilized during a disaster. See Appendix E for recommended pediatric and obstetrical certifications for all direct care providers.

The following are recommended staffing points to consider:

- Pre-identify hospital staff with specialty skills or experience
- Develop a plan to utilize the specific skills of the above personnel, including call-down and notification procedure
- If necessary, train additional staff who are willing to care for specialty population patients
- Integrate the pediatric staffing plan into your hospital's Emergency Operations Plan

If the disaster continues, it may deplete the hospital's ability to adequately staff for the in-patient unit needs. Unit staff requests must go through the Hospital Command Center to request additional staffing. It may become necessary to use outside personnel or volunteers to assist with both clinical and non-clinical elements of the disaster response. Any non-employee volunteers responding to support the incident by adding the logistic, supply and material distribution, administrative functions, or unit staffing needs must be clearly identified as disaster volunteers and assigned a supervisor who will oversee their activities. This group of support personnel is typically protected from civil liability by falling under "Good Samaritan" laws. For clinical licensed professionals, regulatory agencies like the Joint Commission have instituted clear disaster privileging protocols. Federal programs like Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) and local Medical Reserve Corps programs are an attempt to organize potential healthcare responders should the need arise.

Unit Education and Drills

Unit-Level Staff Drills

Each in-patient unit has a responsibility to train their staff on facility emergency codes, HICS positions and functions, unit EOP procedures, equipment use and the use of communication devices addressed in the plan. Staff training provides an opportunity to enhance competencies and emergency response skills. There are multiple ways to accomplish this training such as workshops, skills labs/simulation labs, staff meetings, nurse competency days and statewide exercises. The unit-specific EOP is tested during drills, exercises and tabletops to provide opportunities to evaluate emergency performance and capability and to ensure the competency of staff members in the use of emergency equipment and supplies.

- HICS positions and functions need to be outlined as role and responsibility cards at the unit level
- The unit-specific EOP must be further defined to include the procedures outlined in the EOP.
- The EOP includes how to acquire equipment and additional supplies, how to use communication and evacuation equipment
- During the exercise or drill, designate an individual at the unit-level who will be responsible to monitor exercise performance and document opportunities for improvement. This will be discussed in the unit-specific After Action Report and Corrective Action Plan (Review Statewide Drill section below for further instructions).

Suggested items to monitor include:

- Effectiveness of communication with outside entities, including the Hospital Command Center
- Resource mobilization and asset allocation (i.e.

Pediatric ventilators, fetal monitoring devices, specialty neonatal, pediatric, or obstetrical equipment)

- Management of safety and security, staff roles and responsibilities, utility systems (gas, medical air, suction, laboratory, and radiology), and patient clinical and support care services.
- Utilize free online courses through the Federal Emergency Management Agency's (FEMA) Independent Study program to become more familiar with disaster management concepts
- For more information: http://www.training.fema.gov/is/crslist.asp?page=all

Facility and Community-Wide Integration and Statewide Drills

Evacuation of a specialized ICU is a high-risk activity and requires a carefully planned approach due to the fragile medical condition of the patients and various medical technology/devices they depend on for survival. Due to the critical nature and dependency on medical devices, moving these patients during a surge or evacuation becomes a challenge because of the specialized care they require. Historically, pediatric and perinatal professionals have not been included in disaster planning or exercises, which have led to the needs of the maternal child health (MCH) populations being overlooked.

Scarce resources in a disaster require coordination with other hospitals, Public Health, Incident Commanders, public safety and emergency planners.

These are the following recommendations:

- Work in partnership with local, regional, and other community healthcare providers to organize training and exercises that reflect the use of NIMS/HICS
- Develop goals and objectives to achieve during drills and exercises that test the organization's ability to activate HICS, open the Incident Command Post and at the unit-level follow the instructions as provided by the Hospital Command Center

Specialized Pediatric and OB Emergency Preparedness Medical and Health Statewide Drill Planning

The overall purpose of drills and exercises is to gather information that improves the emergency plan and response during an event. Drills can train staff, identify weaknesses in a plan and response and provide opportunities to educate staff and improve the emergency operations plan.

Another advantage of exercises and drills is its ability to acquaint key personnel with emergency plans, procedures, equipment and responsibilities as well as with each other. This can be especially true when an exercise brings together groups such as emergency preparedness and perinatal professionals who do not typically work together on a day-to-day basis.

Disaster training should include education for the care of specialty populations and include core principles of disaster management and emergency treatment of high-risk populations.

The following points outline the guidelines for participating in California's Medical and Health Statewide Drill and Exercise:

- Performing a "preparedness needs" assessment is the first step in identifying what training is required and the type of exercise needed. This "needs assessment" can help identify the goals and objectives for the units.
- The MD Liaison and Nurse Coordinator should attend annual planning conferences through the California Statewide Medical and Health Exercise (often held through Health Department or EMS division).

These planning sessions include: Concept and Objectives Meeting, Initial Planning Meeting, Midterm Planning Meeting, Master Scenario Events List

(MSEL) Conference, Final Planning Meeting, and After Action Conference. This provides the unit leaders (MD Liaison and Nurse Coordinator) with knowledge regarding how the Statewide Drill and Exercise is conducted and allows the unit to voice specific needs and resource requests for specialized populations.

- The unit leaders will also attend hospital disaster committee meetings to assist in developing the documents to be used during the exercise, including the Situation Manual (SitMan), Master Scenario Event List (MSEL), any player handouts, the Exercise Evaluation Guide (EEG), and the presentation.
- The exercise objectives serve as a guide for determining the scope and length of the exercise in addition to determining if the exercise will be a simple or advanced drill.
- Participants for the drill may include specialized ICU personnel and external agencies. There are many roles in which a participant can serve: moderator/facilitator, evaluator, observer, player, and scribe.
- Immediately after the drill is completed, perform a "Hot Wash." This is an opportunity to review key decisions that were made, identify strengths, areas of improvement, and any gaps discovered during the exercise.
- Shortly after the drill create a unit specific After Action Report (AAR) and send it to the hospital Emergency Disaster Planning Coordinator. This allows a follow up to create corrective action plans, identify gaps in policies and procedures, and present an opportunity for a unit, hospital, or agency to make necessary revisions.
- While creating the AAR, an Improvement Plan is also developed. The recommendations and corrective actions should be linked to the capabilities identified during the planning process. This should be a mix of short and long term goals. Some of the recommendations may focus on an individual unit or policy while others may require multiple agencies or hospitals to collaborate in order to achieve the goal. It is important to assign the person, unit, or agency that will be responsible for completing the action items.
- For more information regarding Homeland Security Exercise and Evaluation Program See: https://hseep.dhs.gov/pages/1001_HSEEP10.aspx
- For Loma Linda University video reference of "full scale" NICU 2010 evacuation California's Medical and Health Statewide Drill and Exercise: See: http://www.youtube.com/watch?v=co8t4soXWyw

Definitions

Situation Manual (SitMan): The Situation Manual, or SitMan, is a handbook used primarily for discussion-based exercises such as a tabletop. Its role is to provide the background information related to the scope and the objectives of the exercise and the schedule of the drill. In addition, the SitMan provides a narrative for the scenario that should be based on the objectives of the exercise and personalized to match the capabilities that need to be tested.

Master Scenario Exercise List (MSEL): The Master Scenario Exercise List, or MSEL, is a timeline of the events and the expected outcomes for the exercise. MSELs are typically used for operation-based exercises but can also be beneficial for discussion based exercises as well.

Exercise Evaluation Guide (EEG): The Exercise Evaluation Guide or EEG is a tool for the exercise evaluators to collect and interpret observations from the players during the exercise. There are many variations to the layout and content of the EEG. It is important to ensure that the EEG is easy to use, has enough space to record observations, mirrors the capabilities and objectives being tested during the exercise and has the expected tasks the players should accomplish. The information gathered in the EEG will help in the development of the After Action Report.

Participant Evaluations: Developing an evaluation form for the exercise participants is also beneficial. Since the drill is likely one of a series of exercises

involving the unit or the facility, the information gathered from the participants can help improve future exercises (logistically as well as content related) and ensure the learning objectives were met. For example, if the players comment that there were too many injects and they did not have enough time to focus on a specific issue, allow more time during future exercises to improve the overall learning.

Moderators/Facilitators: The term moderators and facilitators are typically used interchangeably. The moderator/facilitator provides the overall management, control and direction during the exercise. They are essentially the Emcee of the day, presenting the narrative, explaining the process and encouraging the participants to interact and discuss the issues presented. They are also responsible for limiting side conversations and determining appropriate use of the injects into the MSEL. When identifying the person to facilitate the unit-based exercise, look for someone with good communication skills strong facilitation skills, and familiarity with the unit emergency operations plans. Having a co-facilitator or moderator may be beneficial as well.

Evaluators: The evaluators will play a key role during the exercise to capture the information needed to determine if the goals, objectives and capability tasks were achieved. Through the use of the EEGs, evaluators become the "record keepers" and will observe the players' performance and the degree to which they perform the expected tasks and meet the objectives. The evaluators can have varying degrees of interaction with the players and should receive specific instruction prior to the exercise as to the degree of interaction. Some exercises restrict interaction with the participants to only observation of their behavior and responses, while other exercises allow limited interaction to help stimulate conversation if the participants need assistance. However, the evaluator must never tell the participants how they should respond.

Observers: Observers play a passive role in the exercise and attend in order to watch the exercise. They have no interaction with the players, nor do they contribute anything during the exercise itself. They can, however, contribute their observations during the Hot Wash as well as in the evaluation of the exercise.

Players: The participants performing tasks and responding to injects during the exercise are considered the players. They have an active role in the scenario and initiate actions based on the information provided in the scenario and injects. All players should be encouraged to contribute to the exercise and they can be from any level within the institution. For enhanced or advanced full-scale exercises, the players are typically those in decision-making positions within the unit (i.e. nursing supervisor, attending physician, in-patient unit leader, pharmacist, etc.).

Recorders/Scribes: Having pre-assigned recorders or scribes can be extremely helpful to gather information that is exchanged during the exercise. It may be beneficial to have multiple scribes in different areas (i.e. a scribe to follow in-patient supervisor, a scribe at the evacuation tent, a scribe to follow the lead physician, etc…). By assigning a recorder or scribe to each unit or key player, the evaluation process and the resulting After Action Report can be more complete. During the exercise, the recorder or scribe should have minimal interaction.

Hot Wash: The Hot Wash is essentially a review of the performance within the exercise and occurs immediately at the end of the exercise. It provides an opportunity to review key decisions that were made, identify strengths, weaknesses and any gaps discovered during the exercise and determine issues and concerns with policies and procedures that were utilized during the exercise.

After Action Report: The After Action Report (AAR) is the record of what occurred during the exercise and is used to implement changes. The AAR includes the exercise scenario, any activities and observations, identified strengths and areas for improvement. The AAR also analyzes the capabilities that were determined during the planning stages and if the corresponding tasks were completed during the

exercise. Information gathered from the EEGs and Hot Wash should be utilized to develop the AAR. An After Action Report should be developed after every exercise and finalized within 45 days of the drill completion.

Improvement Plan: The Improvement Plan (IP) is a matrix that identifies key recommendations and corrective actions, the timeline for completion and the responsible person for completion of the task. The plan should be developed within 45 days of the exercise.

Appendix A:

Sample HICS Job Action Sheet–Medical/Technical Specialist – Neonatal Care

Mission: Advise the Incident Commander or Operations Section Chief, as assigned, on issues related to pediatric emergency response.

Date:_____Start:_____End:_____Position Assigned to:_____Initial:_____

Position Reports to:_____Signature:_____

Hospital Command Center (HCC) Location:_____Telephone:_____

Fax:_____Other Contact Info:_____Radio Title:_____

Immediate (Operational Period 0-2 Hours)	Time	Initial
Receive appointment and briefing from the Incident Commander or Operations Section Chief, as assigned.		
Read this entire Job Action Sheet and review incident management team chart (HICS Form 207). Put on position identification.		
Notify your usual supervisor of your HICS assignment.		
Document all key activities, actions and decisions in an Operational Log (HICS Form 214) on a continual basis.		
Meet with the Command staff, Operations and Logistics Section Chiefs and the Medical Care Branch Director to plan for and project neonatal patient care needs.		
Communicate with the Operations Section Chief to obtain: • Type and location of incident • Number and condition of expected neonatal patients • Estimated arrival time to facility • Unusual or hazardous environmental exposure		
Request staffing assistance from the Labor Pool and Credentialing Unit Leader, as needed, to assist with rapid research as needed to determine hazard and safety information critical to treatment and decontamination concerns for infant victims.		
Provide neonatal care guidance to Operation Section Chief and work with the Liaison Officer, to provide transport needs, surge availability and current unit status based on incident scenario		
Ensure neonatal patient identification and tracking practices are being followed.		

Communicate and coordinate with Logistics Section Chief to determine neonatal: • Medical care equipment and supply needs • Medications with pediatric/neonatal dosing • Transportation availability and needs (utilize specialized transport teams)		
Communicate with Planning Section Chief to determine pediatric: • Bed availability (utilize patient acuity) • Ventilators (neonatal specific) • Trained medical staff (MD, RN, PA, NP, etc.) • Additional short and long range neonatal response needs		
Ensure that appropriate pediatric/neonatal standards of care are being followed in all clinical areas.		

Immediate (Operational Period 0-2 Hours)	Time	Initial
Collaborate with the PIO to develop media and public information messages specific to neonatal care recommendations and treatment.		
Participate in briefings and meetings and contribute to the Incident Action Plan, as requested.		
Document all communications (internal and external) on an Incident Message Form (HICS Form 213). Provide a copy of the Incident Message Form to the Documentation Unit.		
Immediate (Operational Period 2-12 Hours)	**Time**	**Initial**
Continue to communicate and coordinate with Logistics Section Chief the availability of neonatal equipment and supplies.		
Assist Liaison Officer during evacuation of NICU areas with transfer facility bed placement. MTS will utilize California Perinatal Transport System and ReddiNet to act as a resource in assisting the County in triaging and transporting patients		
Continue to monitor neonatal care activities to ensure needs are being met.		
Meet regularly with the Operations Section Chief and Medical Care Branch Director for updates on the situation regarding hospital operations and neonatal needs.		

Extended (Operational Period Beyond 12 Hours)	Time	Initial
Ensure the provision of resources for mental health for staff and appropriate event education for children and families.		
Continue to ensure neonatal related response issues are identified and effectively managed.		
Continue to meet regularly with the Operations Section Chief or Incident Commander, as appropriate, for situation status updates and to communicate NICU care issues.		
Ensure your physical readiness through proper nutrition, water intake, rest and stress management techniques.		
Observe all staff and volunteers for signs of stress and inappropriate behavior. Report concerns to the Mental Health Unit Leader. Provide for staff rest periods and relief.		
Upon shift change, brief your replacement on the status of all ongoing operations, issues and other relevant incident information.		

Demobilization/System Recovery	Time	Initial
Ensure return/retrieval of equipment and supplies and return all assigned incident command equipment.		
Upon deactivation of your position, ensure all documentation and Operational Logs (HICS Form 214) are submitted to the Operations Section Chief or Incident Commander, as appropriate.		
Upon deactivation of your position, brief the Operations Section Chief or Incident Commander, as appropriate, on current problems, outstanding issues and follow-up requirements.		
Submit comments to the Operations Section Chief or Incident Commander, as appropriate, for discussion and possible inclusion in the after-action report; topics include: • Review of pertinent position descriptions and operational checklists • Recommendations for procedure changes • Section accomplishments and issues		
Participate in stress management and after-action debriefings. Participate in other briefings and meetings as required.		

Documents/Tools
Incident Action Plan
HICS Form 207 - Incident Management Team Chart
HICS Form 213 - Incident Message Form
HICS Form 214 - Operational Log
Hospital emergency operations plan
Hospital organization chart
Hospital telephone directory
Radio/satellite phone
Local public health reporting forms

Appendix B:

Sample HICS Job Action Sheet–Medical/Technical Specialist – Pediatric Care

Mission: Advise the Incident Commander or Operations Section Chief, as assigned, on issues related to pediatric emergency response.

Date:_____Start:_____End:_____Position Assigned to: _____Initial: _____

Position Reports to: _____Signature:_____

Hospital Command Center (HCC) Location:_____Telephone:_____

Fax:_____Other Contact Info: _____Radio Title:_____

Immediate (Operational Period 0-2 Hours)	Time	Initial
Receive appointment and briefing from the Incident Commander or Operations Section Chief, as assigned.		
Read this entire Job Action Sheet and review incident management team chart (HICS Form 207). Put on position identification.		
Notify your usual supervisor of your HICS assignment.		
Document all key activities, actions and decisions in an Operational Log (HICS Form 214) on a continual basis.		
Meet with the Command staff, Operations and Logistics Section Chiefs and the Medical Care Branch Director to plan for and project pediatric patient care needs.		
Communicate with the Operations Section Chief to obtain: • Type and location of incident • Number and condition of expected pediatric patients • Estimated arrival time to facility • Unusual or hazardous environmental exposure		
Request staffing assistance from the Labor Pool and Credentialing Unit Leader, as needed, to assist with rapid research as needed to determine hazard and safety information critical to treatment and decontamination concerns for the pediatric victims.		
Provide pediatric care guidance to Operation Section Chief and Medical Care Branch Director based on incident scenario and response needs.		
Ensure pediatric patient identification and tracking practices are being followed.		

Communicate and coordinate with Logistics Section Chief to determine pediatric: • Medical care equipment and supply needs • Medications with pediatric dosing • Transportation availability and needs (carts, cribs, wheelchairs, etc.)		
Communicate with Planning Section Chief to determine pediatric: • Bed availability • Ventilators • Trained medical staff (MD, RN, PA, NP, etc.) • Additional short and long range pediatric response needs		
Ensure that appropriate pediatric standards of care are being followed in all clinical areas.		

Immediate (Operational Period 0-2 Hours)	Time	Initial
Collaborate with the PIO to develop media and public information messages specific to pediatric care recommendations and treatment.		
Participate in briefings and meetings and contribute to the Incident Action Plan, as requested.		
Document all communications (internal and external) on an Incident Message Form (HICS Form 213). Provide a copy of the Incident Message Form to the Documentation Unit.		
Immediate (Operational Period 2-12 Hours)	**Time**	**Initial**
Continue to communicate and coordinate with Logistics Section Chief the availability of pediatric equipment and supplies.		
Coordinate with Logistics and Planning Section Chiefs to expand/create a Pediatric Patient Care area, if needed.		
Continue to monitor pediatric care activities to ensure needs are being met.		
Meet regularly with the Operations Section Chief and Medical Care Branch Director for updates on the situation regarding hospital operations and pediatric needs.		
Extended (Operational Period Beyond 12 Hours)	**Time**	**Initial**
Ensure the provision of resources for pediatric mental health and appropriate event education for children and families.		
Continue to ensure pediatric related response issues are identified and effectively managed.		
Continue to meet regularly with the Operations Section Chief or Incident Commander, as appropriate, for situation status updates and to communicate critical pediatric care issues.		
Ensure your physical readiness through proper nutrition, water intake, rest and stress management techniques.		
Observe all staff and volunteers for signs of stress and inappropriate behavior. Report concerns to the Mental Health Unit Leader. Provide for staff rest periods and relief.		
Upon shift change, brief your replacement on the status of all ongoing operations, issues and other relevant incident information.		

Demobilization/System Recovery	Time	Initial
Ensure return/retrieval of equipment and supplies and return all assigned incident command equipment.		
Upon deactivation of your position, ensure all documentation and Operational Logs (HICS Form 214) are submitted to the Operations Section Chief or Incident Commander, as appropriate.		
Upon deactivation of your position, brief the Operations Section Chief or Incident Commander, as appropriate, on current problems, outstanding issues and follow-up requirements.		
Submit comments to the Operations Section Chief or Incident Commander, as appropriate, for discussion and possible inclusion in the after-action report; topics include: • Review of pertinent position descriptions and operational checklists • Recommendations for procedure changes • Section accomplishments and issues		
Participate in stress management and after-action debriefings. Participate in other briefings and meetings as required.		

Documents/Tools
Incident Action Plan
HICS Form 207 - Incident Management Team Chart
HICS Form 213 - Incident Message Form
HICS Form 214 - Operational Log
Hospital emergency operations plan
Hospital organization chart
Hospital telephone directory
Radio/satellite phone
Local public health reporting forms

Appendix C:

Sample HICS Job Action Sheet–Medical/Technical Specialist – Obstetric Care

Mission: Advise the Incident Commander or Operations Section Chief, as assigned, on issues related to obstetric emergency response.

Date:_____Start:_____End:_____Position Assigned to: _____Initial: _____

Position Reports to: _____Signature:_____

Hospital Command Center (HCC) Location:_____Telephone:_____

Fax:_____Other Contact Info: _____Radio Title:_____

Immediate (Operational Period 0-2 Hours)	Time	Initial
Receive appointment and briefing from the Incident Commander or Operations Section Chief, as assigned.		
Read this entire Job Action Sheet and review incident management team chart (HICS Form 207). Put on position identification.		
Notify your usual supervisor of your HICS assignment.		
Document all key activities, actions and decisions in an Operational Log (HICS Form 214) on a continual basis.		
Meet with the Command staff, Operations and Logistics Section Chiefs and the Medical Care Branch Director to plan for and project obstetric patient care needs.		
Communicate with the Operations Section Chief to obtain: • Type and location of incident • Number and condition of expected obstetric patients • Estimated arrival time to facility • Unusual or hazardous environmental exposure		
Request staffing assistance from the Labor Pool and Credentialing Unit Leader, as needed, to assist with rapid research as needed to determine hazard and safety information critical to treatment and decontamination concerns for the obstetric victims.		
Provide obstetric care guidance to Operation Section Chief and Medical Care Branch Director based on incident scenario and response needs.		
Ensure obstetric patient identification and tracking practices are being followed.		

Communicate and coordinate with Logistics Section Chief to determine obstetric: • Medical care equipment and supply needs • Medications • Transportation availability and needs (carts, wheelchairs, etc.)		
Communicate with Planning Section Chief to determine obstetric: • Bed availability • Ventilators • Trained medical staff (MD, CNM, RN, PA, NP, etc.) • Additional short and long range obstetric response needs		
Ensure that appropriate obstetric standards of care are being followed in all clinical areas.		

Immediate (Operational Period 0-2 Hours)	Time	Initial
Collaborate with the PIO to develop media and public information messages specific to obstetric care recommendations and treatment.		
Participate in briefings and meetings and contribute to the Incident Action Plan, as requested.		
Document all communications (internal and external) on an Incident Message Form (HICS Form 213). Provide a copy of the Incident Message Form to the Documentation Unit.		
Immediate (Operational Period 2-12 Hours)	**Time**	**Initial**
Continue to communicate and coordinate with Logistics Section Chief the availability of obstetric equipment and supplies.		
Coordinate with Logistics and Planning Section Chiefs to expand/create a Obstetric Patient Care area, if needed.		
Continue to monitor obstetric care activities to ensure needs are being met.		
Meet regularly with the Operations Section Chief and Medical Care Branch Director for updates on the situation regarding hospital operations and obstetric needs.		
Extended (Operational Period Beyond 12 Hours)	**Time**	**Initial**
Ensure the provision of resources for obstetric mental health and appropriate event education for mothers, infants and families.		
Continue to ensure obstetric related response issues are identified and effectively managed.		
Continue to meet regularly with the Operations Section Chief or Incident Commander, as appropriate, for situation status updates and to communicate critical obstetric care issues.		
Ensure your physical readiness through proper nutrition, water intake, rest and stress management techniques.		
Observe all staff and volunteers for signs of stress and inappropriate behavior. Report concerns to the Mental Health Unit Leader. Provide for staff rest periods and relief.		
Upon shift change, brief your replacement on the status of all ongoing operations, issues and other relevant incident information.		

Demobilization/System Recovery	Time	Initial
Ensure return/retrieval of equipment and supplies and return all assigned incident command equipment.		
Upon deactivation of your position, ensure all documentation and Operational Logs (HICS Form 214) are submitted to the Operations Section Chief or Incident Commander, as appropriate.		
Upon deactivation of your position, brief the Operations Section Chief or Incident Commander, as appropriate, on current problems, outstanding issues and follow-up requirements.		
Submit comments to the Operations Section Chief or Incident Commander, as appropriate, for discussion and possible inclusion in the after-action report; topics include: • Review of pertinent position descriptions and operational checklists • Recommendations for procedure changes • Section accomplishments and issues		
Participate in stress management and after-action debriefings. Participate in other briefings and meetings as required.		

Documents/Tools
Incident Action Plan
HICS Form 207 - Incident Management Team Chart
HICS Form 213 - Incident Message Form
HICS Form 214 - Operational Log
Hospital emergency operations plan
Hospital organization chart
Hospital telephone directory
Radio/satellite phone
Local public health reporting forms

Appendix D:

Staff Call Tree Roster Example

Unit Management Staff:

Name	Title	Contact Numbers	Contact Status		Arrival Time	Has Family Plan	Needs Family Care		Incident Assignment
			Received Message	Left Message		Y/N	Y/N	How Many	
		H: C: W:							
		H: C: W:							
		H: C: W:							

Department Staff Residing within 30 MINUTES of Hospital:

Name	Title	Contact Numbers	Contact Status		Arrival Time	Has Family Plan	Needs Family Care		Incident Assignment
			Received Message	Left Message		Y/N	Y/N	How Many	
		H: W: C:							
		H: W: C							
		H: W: C							

Department Staff Residing within 60 MINUTES of Hospital:

Name	Title	Contact Numbers	Contact Status		Arrival Time	Has Family Plan	Needs Family Care		Incident Assignment
			Received Message	Left Message		Y/N	Y/N	How Many	
		H: W: C:							
		H: W: C							
		H: W: C							

Department Staff Residing more than 60 MINUTES of Hospital:

Name	Title	Contact Numbers	Contact Status		Arrival Time	Has Family Plan	Needs Family Care		Incident Assignment
			Received Message	Left Message		Y/N	Y/N	How Many	
		H: W: C:							
		H: W: C							
		H: W: C							

Appendix E:
Additional Staff Training Resources

Training Recommendations for Neonatal	
All Direct Care Providers (Nurses and Physicians)	• Neonatal Resuscitation Program (NRP) • Basic Disaster Life Support (BDLS) Additional suggested training program recommendations for nurses and physicians include: • Disaster Drill which includes neonatal patients
Training Recommendations for Pediatrics	
All Direct Care Providers (Nurses and Physicians)	• Pediatric Advanced Life Support (PALS) • Basic Disaster Life Support (BDLS) Additional suggested training program recommendations for nurses and physicians include: • Disaster Drill which includes pediatric patients
Nurses	• Emergency Nursing Pediatric Course (ENPC)
Physicians	• Advanced Trauma Life Support (ATLS) • Advanced Burn Life Support (ABLS) • Advanced Cardiac Life Support (ACLS)
Training Recommendations for Obstetrics	
All Direct Care Providers (Nurses and Physicians)	• Advanced Cardiac Life Support (ACLS) • Neonatal Resuscitation Program (NRP) • Basic Disaster Life Support (BDLS) • Emergency Childbirth Training Additional suggested training program recommendations for nurses and physicians include: • Disaster Drill which includes obstetric patients or obstetric simulators • For more Information see: Perinatal Section for Table-top Disaster Drill Example

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In-Patient Triage (TRAIN©)

The Join Commission defines a disaster as "a type of emergency that, due to its complexity, scope or duration, threatens the organizations capabilities and requires outside assistance to sustain patient care, safety or security functions." Hospitals and pediatric and obstetrical units may have internal emergency protocols for moving patients. However few, if any, hospitals have protocols for moving patients throughout a region collaboratively during a widespread disaster. Planning for regional collaboration during future disasters requires a shift from previous triage systems (i.e. JumpSTART). Instead hospitals within a region should move towards a resource-based triage plan that would facilitate communication, transportation and resource allocation between hospitals.

The Triage by Resource Allocation for IN-patient (TRAIN©) matrix is a tool for hospital disaster "pre-planning". It categorizes inpatients according to their resource and transportation needs during an evacuation or mass casualty event requiring increased surge capacity. This tool can be implemented manually or within an electronic medical record. It *accurately* assesses patients *quickly* and easily to determine transport needs, allowing institutions to request and receive resources required for vertical movement in disaster.

This innovative tool applies to hospitalized patients with regards to their current resource and vtransportation needs. Previous triage tools are primarily used in the pre-hospital setting and are based on severity of illness or predictors of mortality, which are not applicable to the inpatient population. *This tool is most effective when incorporated into daily practices prior to a disaster.*

This tool was originally created for the neonatal population and then modified for hospitalized pediatric and obstetrics patients. Plans to incorporate the adult inpatient population are currently underway.

OB TRAIN©

The OB TRAIN© (Obstetrical Triage by Resource Allocation for IN-patient) matrix has been developed and is currently being piloted. It is not yet ready to be published in this guidebook, but will be provided to all interested parties as soon as it is ready.

There are two versions of OB TRAIN© currently in testing: 1) OB TRAIN© for Antepartum and Labor & Delivery and 2) OB TRAIN© for Postpartum. As is the case with the existing TRAIN© model, each matrix includes 5 levels of resource needs in increasing severity, for each of 5 categories, including: 1) Transport, 2) Delivery, 3) Mobility, 4) Post-op and 5) Maternal Risk.

The remainder of this section discusses the TRAIN© matrix as applied to pediatric and neonatal patients.

TRAIN
Triage by Resource Allocation for IN-patients

Transport	Car	BLS	ALS	CCT	Specialized
Life Support	Stable	Stable	Minimal	Moderate	Maximal
Mobility	Car/Carseat	Wheelchair or Stretcher	Wheelchair or Stretcher	Transport Rig	Immobile
Nutrition	All PO	Intermittent Enteral	Continuous Enteral or Partial Parenteral	Complete TPN	NPO & TPN
Pharmacy	PO Meds	IV Lock	IV Fluids	IV Drip x1	IV Drip x2

Life Support	Minimal = Hood or Low Flow Cannula O2, Chest Tube, etc. Moderate = CPAP/BiPAP/Hi-Flow, Conventional Ventilator, Peritoneal Dialysis, Externally paced, wt ? 3kg, continuous nebulizer treatments, etc. Maximal = Highly specialized equipment: i.e. HFOV, ECMO, iNO, CVVH, Berlin Heart, wt ? 1.5kg, etc.
Mobility	Car/Carseat = able to ride in automobile with age-appropriate restraints Transport Rig = Age-appropriate rig with equipment for connecting to ambulance Immobile = Unable to move without special equipment, i.e. neurosurgical/bariatric

See TRAIN+ Toolkit from Lucile Packard Children's Hospital

By implementing the above color-coding system on a daily basis, patients would be pre-triaged allowing for rapid communication between units and the Hospital Command Center. Pediatric and Perinatal units could be categorized routinely either on rounds or automatically by electronic medical record systems according to the above color-coding system (See Appendix A-Helpful hints for computer coding).

It is important to note, that the TRAIN© triage patient categorization can also be incorporated into the HICS-260 Patient Evacuation Tracking Form using colored stickers at the unit level (See chapter on HICS Forms and Patient Tracking).

Instructions On Using The Train© Matrix

1. Look at each patient and assess by the following methods:

- Airway/Breathing – What equipment is being used? BiPAP, oxygen, etc.
- Circulation – IV medications running (type and number), feeding tube, ECMO, etc.
- Physical assessment – CT, casts, drains
- Mobility – Specialized wheelchair
- Equipment – What is in the room that may only be used intermittently?

2. Each patient will be categorized by maximum needs of each resource type (farthest category to the right)

- For example, a patient who is on room air on a regular diet but is on a basal rate narcotic medication would be categorized as Yellow.

Daily Process

1. Assign one person ***daily*** to complete the TRAIN© assessment form.

- This individual may be whoever you decide is capable of completing the process accurately (i.e., Staff Nurse, Charge RN, Nurse Manager, Physician).
- The accuracy of this tool is best when administered by someone familiar with the patients.

2. Enter each of the Unit's bed numbers on the TRAIN© assessment form.

3. Enter the name of the patient occupying each associated bed space.

4. Complete the information, including:

- Date
- Time
- Unit

5. Assign the appropriate color to each patient, according to the TRAIN© matrix.

6. At the bottom of the table, total the number of patients in each TRAIN© category.

7. Have the TRAIN© matrix and completed assessment forms readily available with disaster plans on your unit, in hospital administration, with RN supervisors and in the Hospital Command Center

- The form can either be computerized or faxed once a disaster strikes. However given the nature of disasters and the panic that strikes it is better to have it available beforehand.

NOTE: In using the TRAIN© matrix it is important to realize that while patients are generally evacuated from lowest acuity to highest acuity, this may not always be the case. For example, if the hospital must evacuate and the first ambulance rigs to arrive at the hospital are ALS certified, then the patients requiring ALS support (triage color yellow) will be evacuated before the patients requiring BLS support (triage color green). Another example would be during a situation like Hurricane Katrina or Sandy. Hospitals knew evacuation was necessary, however they had time to plan the evacuations. Therefore they could move the most critical patients (triage color red) before some of the less critical patients. It is important to remember that the TRAIN© matrix is a guide for patient classification to aid in evacuation but is in no way a definitive order in which an evacuation must occur. Below are additional guidelines for triaging patients according to the TRAIN© matrix.

BLUE

These are the most stable patients in the hospital. During a disaster hospitals often operate under an altered standard of care. The stable patients may either be discharged home or transported to an alternate care site with a low level of care via car or bus. There are two reasons the rapid discharge or transport of these patients could become necessary: a) damage to the hospital infrastructure or b) the hospital experiences a large surge of patients. These patients would be the first to be evacuated because they require the fewest number of resources. The following information below explains the criteria for this category:

Transport: Car/Bus or Home with parent/caregiver

Life Support: Stable

- On room air
- Off monitoring
- Uncomplicated drains (i.e. JP or bili drains)

Mobility: Car/Car Seat

- No specialized equipment needed to transport patient

Nutrition: PO Feeds

- Oral feeds only
- No tube feeds

Pharmacy: PO Medications
No intravenous medications
Oral meds only

GREEN

These are patients who require little or no support/assistance. The following information below explains the criteria for this category:

Transport: BLS Ambulance

Life Support: Stable
- On room air or low-flow nasal cannula
- May require pulse oximetry

Mobility: Wheelchair/stretcher
- Baseline requirement (i.e. Cerebral Palsy)
- Restricted mobility due to devices (i.e. Spica Casts, Traction, Halos)

Nutrition: Intermittent Enteral
- Intermittent tube feeds (i.e. G-tube, J-tube, nasogastric, nasoduodenal, nasojejunal, orogastric)
- Oral feeds in combination with tube feeds (i.e. A baby who is nipple/gavage feeding)

Pharmacy: IV Lock
- Intermittent intravenous medications

YELLOW

These are patients who require minimal assistance. The following information below explains the criteria for this category:

Transport: ALS Ambulance

Life Support: Minimal
- Low flow nasal cannula or hood oxygen or trach mist mask
- Pertioneal dialysis (intermittent)
- May require cardiorespiratory monitoring

Mobility: Wheelchair/Stretcher
- Baseline requirement (i.e. cerebral palsy)
- Restricted mobility due to devices (i.e. spica casts, traction, halos, etc)

Nutrition: Continuous Enteral or Partial Parenteral
- Continuous tube feeds (i.e. G-tube, J-tube, nasogastric, nasoduodenal, nasojejunal, orogastric)
- Intermittent TPN/IL (i.e. Patients on 16-hour cycle)

Pharmacy: IV Fluids
- Standard IV fluids (i.e. Dextrose with electrolytes, etc)

ORANGE

These patients are usually stable but require moderate assistance and advanced monitoring by a Nurse, Respiratory Therapist and/or Doctor. The increased amount of equipment and resources needed to manage these patients makes them more difficult to maneuver during an evacuation. The following information below explains the criteria for this category:

Transport: Critical Care
- Ambulance with RN +/- RT +/- MD

Life Support: Moderate-Stable
- Conventional Ventilator
- CPAP/BiPAP/Hi-Flow Nasal Cannula/ Continuous Nebulizer
- External Pacemaker
- Chest Tube
- Hemodialysis (intermittent)
- Weight ≤ 3 kg (NICU)

Mobility: Transport Rig
- As based on equipment required to safely transport patient
- Examples: External Ventricular Drains, etc…

Nutrition: Continuous Enteral or Complete TPN
- Combination of enteral feeds (by mouth or tube feed) and parenteral nutrition (total parenteral nutrition/intralipid)

Pharmacy: IV drips x1
- Can have intermittent intravenous medications
- Single intravenous non-titratable medication drip (i.e. Insulin, basal narcotic drip, pressors, sedation, etc.)

RED

These are the most critical patients in the hospital. They require maximum resources and staffing. Because of this increased need for resources, including hospital staff to care for these patients once they are moved, these are usually the last patients to be moved during a disaster. If there is a lengthy evacuation time, then the physician may want to consider moving these patients first so they don't exhaust a hospital's resources. Additionally, physicians will need to further categorize these patients in an ICU setting when considering a patient is may be a DNR or status-post cardiac arrest. These patients have a poor prognosis when compared with a recently intubated patient that would also be categorized as a "red." The following information below explains the criteria for this category:

Transport: Specialized Transport Teams
- Ambulance or Military
- Supported transport with combination of RN(s) +/- RT +/- MD

Life Support: Max-Unstable
- Highly specialized equipment
- High Frequency Oscillatory Ventilation
- ExtraCorporeal Membrane Oxygenation (ECMO)
- Inhaled Nitric Oxide
- Whole Body Cooling (NICU)
- < 1.5 kg (NICU)
- Continuous Veno-Venous Hemofiltration (i.e. CRRT)
- Ventricular Assist Devices
- Surgical/Cardiac Patients on Prostaglandin Infusion (NICU)

Mobility: Immobile

Nutrition: NPO & TPN/IL
- No enteral feeds
- Parenteral nutrition only

Pharmacy: IV drips ≥ 2

- Intermittent intravenous medications
- Multiple intravenous mediation drips that may require titration (i.e. Insulin, basal narcotic drip, pressors, sedation, etc.

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Appendix A:

HELPFUL HINTS FOR COMPUTER CODING (see TRAIN© toolkit)

The computerization of this matrix has been found to decrease the impact to nursing workflow and is more accurate and timely than when used manually. There may be institutions which do not yet have this capability, but which may grow to have them. It is also recognized that multiple electronic medical record products are available. Each product will require different algorithms and coding elements. The following are helpful hints that have been used to successfully code the TRAIN© matrix into an electronic medical record:

- The most accurate data for Life Support, Mobility and Nutrition resource types were pulled from nursing documentation
- The most accurate data for Pharmacy was pulled from the electronic medical administration record
- When programming the algorithm using the TRAIN© matrix, categorization occurs with the highest resource need
- If data is documented in multiple places within the electronic chart, the coding should include both places and use the most recently charted data
- For Life Support and Nutrition, data is pulled over time (8 hours) to include patients who need intermittent ventilatory or nutritional support
- All categorization should be compiled into a report that is easily accessible
- It is recommend that the reports are printed once a shift for hospitals with high acuity where patient status can fluctuate more frequently
- It is recommend that these reports are made available to both unit and administrative leadership

Role Responsibilities

Patient Care Area Job Action Cards

In the case of an emergency, it is important to have well-defined staff roles to lessen the chaos and confusion created by disasters. Some or all of the positions associated within the HICS may be activated hospital-wide. In addition to the Hospital Command Center and hospital-wide roles, each unit must identify and define roles and responsibilities for key staff positions that may be needed to respond to emergencies. Whether hospital-wide or within a particular unit, these roles are created as Job Action Sheets and are outlined using common terminology.

These unit-based Job Action Sheets are quick reference cards. They are color coded, laminated and they simplify the actions required by each discipline in checklist format. They should be durable, waterproof and clearly visible at the bedside. These cards allow clinical staff to quickly identify their role and focus on prioritizing their duties and rapid mobilization of resources.

The unit-based Job Actions Cards that may be activated include the following roles:

- Physician Unit Leader
- Inpatient Unit Leader (Charge Nurse/Team Leader)
- Bedside Nurse (RN)
- Team Leader (Logistics Activity Leader)
- Supervisor Unit Leader (Operational Activity Leader)
- Respiratory Unit Leader (Respiratory Therapist)
- Unit Clerical Leader (Secretary)
- Pharmacist
- Each one of these roles is explained in greater detail below.

Every unit has unique leadership roles and these roles need to be adapted to fit unit needs during an emergency. The following are key points:

- Survey the unit and identify key leadership roles to carry out unit-specific tasks during an emergency
- Create unit-based Job Action Cards (see Appendix A on how to make these)
- Job Action Cards should be displayed in prominent clinical areas for staff to become familiar with disaster roles on a daily basis
- Educate physicians and staff member on card roles and responsibilities during drills and exercises

Physicians

- Account for all physicians, fellows, residents and CNM/NP/PAs on the unit at the time of disaster. (Check for injuries – this needs to be done in the 1st 30 minutes)
- Obtain Disaster Radios from _____ storage area. Upon hearing CODE _____ overhead, turn on radio and use for communicating with the HCC.
- Collaborate with the Unit Supervisors in triaging patients. This will most often be done by acuity, with the lowest acuity patients being evacuated first
- NOTE: DO NOT EVACUATE WITHOUT AN ORDER AND GUIDANCE FROM THE INCIDENT COMMANDER OR HOSPITAL ADMINISTRATOR OR FIRE MARSHALL
- Initiate the "Triage Guidelines for Evacuation or Surge/TRAIN"
- Initiate the physician emergency call list
- Assist with stabilization and transport of the sickest patients
- Notify Department Chief of emergency. Interact with HCC as appropriate until relieved of this duty
- Determine the number of Physicians/Fellows/Resident/CNM/NP/PAs needed on the unit
- Communicate with Medical Branch in the HCC regarding:
  - ✓ Transport needs
  - ✓ Review short and long term operational response needs
  - ✓ Equipment, supply, medication, and staffing needs
- Assist teams with preparation of appropriate documentation and triaging
- Assist with notification of parents/family members regarding the situation and if transfers should become necessary
- Assign responsibilities to Fellows, Residents, CNM/NP/PAs as appropriate to the situation (i.e. Evacuation, Triage, Care in surge tent)
- Monitor staff for signs of fatigue, stress or difficulty coping

In-Patient Unit Leader

- **This is the Nurse Manager or Lead Supervisor**
- Immediately assume role of Unit Leader
- Obtain Disaster Radios from _____ storage area. Upon hearing CODE _____ overhead, turn on radio and use for communicating with the HCC
- Direct Unit Clerical Leader (Secretary) to notify Attending Physician on service and the Unit Nurse Manager on duty of the Emergency.
- Have quick status meeting with leadership (5-10 minutes)
- Retrieve the following from the Go-Kit:
  - ✓ HICS 213 Form (Incident Message Form)
  - ✓ HICS Form 214 (Operational Activity Log) of your actions
  - ✓ Assign Recorder Aide to document unit leader actions and decisions
- Receive an update that the "Disaster Condition Assessment Form" has been completed and information on that form has been sent to the HCC by phone, fax, or runner
- Discuss initial action plan with unit leadership and Medical Branch Director (HCC)
- Ensure patient ID and tracking practices are being followed (HICS 260)
- Distribute remaining Job Cards to Team Leaders, Charge Nurse, Respiratory Unit Leader (RT), Unit Clerical Leader (Secretary) and Pharmacy. Instruct them to follow the steps on the card
- Request assistance to determine hazard and safety information critical to treatment and/or evacuation of patients
- Coordinate with Medical Branch/Logistics/Planning Chiefs in the HCC to expand and/or create specific patient care areas, if needed
- Ensure attempts have been taken to reach patient families to notify of potential evacuation

Unit Supervisors (Operational Coordinator)

- Retrieve the Unit Disaster Documentation & Forms Go-Kit from the designated location
- Pull the following from the Go-Kit:
  - ✓ ALL HICS Forms (214, 255 and 260)
  - ✓ Emergency/Disaster Status Report Form
- Use HICS Form 214 – Operational Activity Log for documenting your actions (i.e. communications, moving patients, etc.)
- Fill out the Emergency/Disaster Status Report Form and relay information on that form to the HCC by phone, radio, fax, or runner (within 30 min)
- Review Disaster Responsibility Role Cards. Assure all Multi-Disciplinary Teams have their Role Cards and instruct them to follow their responsibilities
- Assign one Area Leader (RN) to assist with nursing disaster responsibilities (Working in teams with one leader for every five co-workers if possible)
- Consult with the Physician to review patients and determine order of potential evacuation based on level of acuity (lowest acuity patients are evacuated first)
- Direct support personnel to assist Area Leaders & Team Leaders in gathering and carrying supplies
- If ordered to evacuate the patient care unit, bring Disaster Documentation & Forms Go-Kit and daily assignment sheet

NOTE: DO NOT EVACUATE WITHOUT AN ORDER AND GUIDANCE FROM THE INCIDENT COMMANDER

Bedside Nurse (RN)

- Ensure each patient is properly identified with the appropriate ID bands
- Triage patients using the "Triage Resource Allocation for In-Patient (TRAIN)"
- Place colored triage label on patient and all THREE (3) copies of the 260 Form
- Support personnel will assist in carrying supplies as needed
- Fill out a HICS "260 - Patient Evacuation Tracking Form" for each patient. There are 3 copies:
  - ✓ A copy must stay with the patient
  - ✓ A copy for the Unit Secretary (to go to the HCC)
  - ✓ A copy to the transferring agency
- Pull 1 Face Sheet, 1 sticker of each patient and physical chart and give to Unit Secretary or Supervisor for Master Tracking Form (HICS 255) when leaving the unit with the patient for evacuation
- Gather blank MAR and downtime documentation forms (if not already in emergency backpacks) for downtime charting
- Gather/fill the disaster backpacks, patient labels and shift kardex or SBAR Handoff report

NOTE: DO NOT EVACUATE WITHOUT AN ORDER AND GUIDANCE FROM THE INCIDENT COMMANDER

- If ordered to evacuate by the Incident Commander:
  - ✓ Disconnect as many tubes and wires as possible
  - ✓ Disconnect chest tubes from suction and use Heimlich valve
  - ✓ Heplock IV's (keep critical medications or drips running)

Team Leaders (Logistics Coordinator)

- Bring code cart with portable suction along, if ordered to evacuate
- Gather portable evacuation supplies (disaster evacuation beds are located in each specialized in-patient unit storage room #_____)
- Mobilize additional resources needed for transporting patients
- Assign support personnel to help gather and carry supplies. Photos of supplies are available in the Disaster Documentation & Forms Go-Kit (each unit must customize for specific unit needs). Some supplies to consider bringing include:
  - ✓ Vertical evacuation equipment (I.e. medsleds, Stryker chair, aprons)
  - ✓ Backpacks (filled with patients supplies)
  - ✓ Oxygen Tanks
  - ✓ Obstetrical Delivery Packs
  - ✓ Blankets
  - ✓ Transport Bags (Take these 1st to the surge site)
  - ✓ Emergency Evacuation Pharmaceutical Supplies
  - ✓ Glucose Meters
  - ✓ Medfusion Pumps
  - ✓ Portable Monitors
  - ✓ Portable Blood Pressure Machine
  - ✓ Pulse Oximeters
  - ✓ Neopuffs
  - ✓ Available Vents (must have electrical power)
  - ✓ Code Cart/Red Bags
  - ✓ Flashlights/Headlamps
  - ✓ Infant Formula/Breastmilk (on ice) if available
  - ✓ Nutrition for Pediatric/ Obstetrical Patients (supplied by Nutritional Services)
- Help to stock surge tent with necessary supplies at the location designated by the Incident Commander and remain there to receive incoming patients
- Take roll call of all staff and patients at evacuation site/surge tent on the Unit Census Sheet as they arrive

Respiratory Care Practitioner (RCP)

- Assist with patients on respiratory support
- Contact Lead Respiratory Care Practitioner (At ext. _____ or on hospital issued cell phone _____)
- Gather/organize E-cylinders and H-cylinders along with regulators to be used during and after evacuation
- Gather respiratory supply bag and available vents as time allows, to be used at the surge tent after evacuation

NOTE: IF ORDERED BY INCIDENT COMMANDER OR HOSPITAL ADMINISTRATOR OR FIRE MARSHALL/FIRE CHIEF shut off gas valves to the unit using the Medical Gas Algorithm (each unit must have plans for medical gas use)

LEAD – *Respiratory Care Practitioner*

- Contact House Supervisor
- Distribute portable vents/Ambu bags to bedsides of patients on ventilators to be used during evacuation and at the Surge Tent, located in _____ storage room
- Assist nursing staff with Positive Pressure Ventilation on intubated patients
- Call for extra RCP support and extra oxygen tanks
- As rooms are evacuated, mark the outside of the door with a large ORANGE placard "EVACUATION" sign to indicate that there are no patients or staff inside (The placards are located in the "To Go Kit" in the designated location)

Unit Secretary

- Remain stationed at the desk as long as possible to facilitate communications
- Notify the Medical Director, Nurse Manager and Supervisors of the disaster (Phone numbers found in the unit Disaster Documentation & Forms Go-Kit located in _____)
- Use Family Contact Information to notify families of evacuation. If unable to contact family, update In-Patient Unit Leader of needed assistance from the PIO (Public Information Officer)
- Receive HICS "260 – Patient Evacuation Tracking Form" from Area Leaders. Send copies to the HCC via phone, fax, or send by runner
- Complete HICS 255 - Master Tracking Form after supervisors have affixed patient labels and triage is complete
- Give the large ORANGE placard "EVACUATION" signs to the Lead Respiratory Care Practitioner
- Prepare by gathering the following in case evacuation is ordered:
  - ✓ Telephone call Rolodex
  - ✓ Updated census sheet
  - ✓ Notebook with Family Contact information
  - ✓ Patient Addressograph Cards/Labels
  - ✓ Take hard charts to surge tent

Pharmacy

- Immediately report to pharmacy (call ext. _____ or pager # _____) to communicate with In-Patient Unit Leader immediately following a declared disaster (within 5 minutes of notification)
- Contact pharmacy supervisor regarding immediate needs of the unit (staffing, medications, runner, security)
  - ✓ Days – Supervisor _____ @ ext. _____
  - ✓ Nights – Supervisor _____ @ ext. _____
- Secure algorithm for Acudose emergency access
- Print inpatient medication profiles (if available)
- Assist with patient-related medication management
- Assist Anesthesia for patients receiving epidurals or continuous patient analgesia
- Gather necessary downtime forms and laptop/portable workstation
- Obtain disaster pharmacy lists (located in _____). Examples include:
  - ✓ Other supply bag (needles, syringes, gloves, pens, etc.)
  - ✓ Unit-specific pharmaceutical guidebook
  - ✓ Controlled substance downtime form (tracks narcotic usage/waste)
  - ✓ Emergency evacuation pharmaceutical supply list
- Gather and fill pharmacy bags with necessary pharmaceuticals as listed above
- Report to evacuation site/surge tent within 30 minutes
- Remain at surge tent and assist MDs/RNs with continuing providing medication needs to patients