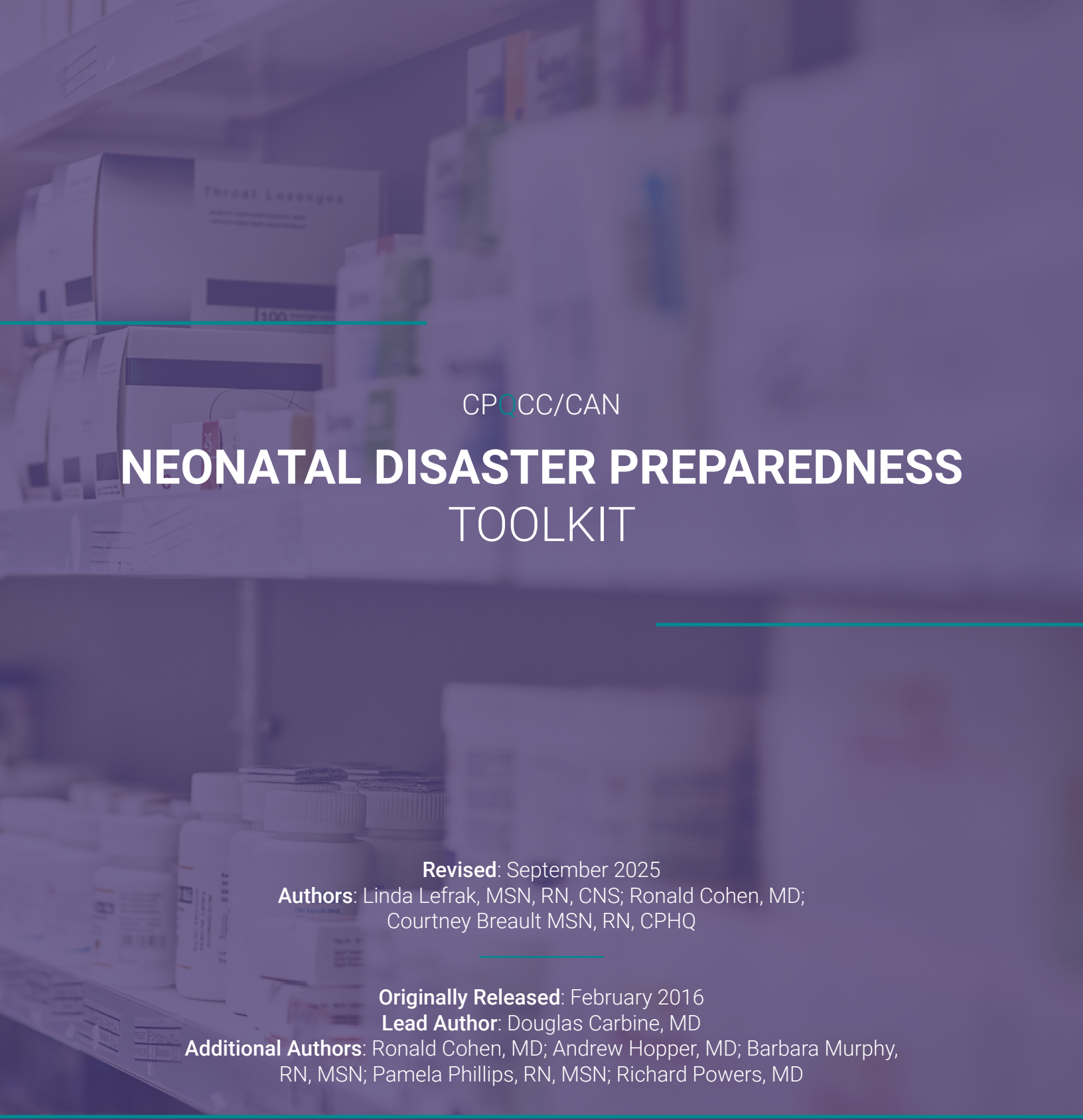

CPQCC/CAN

NEONATAL DISASTER PREPAREDNESS TOOLKIT

Revised: September 2025
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Neonatal Disaster Preparedness

A CAN/CPQCC Provider Toolkit

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Table of Contents

This toolkit is to guide Neonatal Intensive Care Units (NICU) leadership in the development, implementation and maintenance of a comprehensive disaster response plan that is in compliance with Joint Commission on Accreditation of Healthcare Organizations (JCAHO) Standards and based on Community risk factors.

JCAHO provides detailed guidance standard on the requirements for disaster preparedness in accredited hospitals. EM.10.01.01.

A hazard vulnerability analysis (HVA) should be conducted to identify events that could affect demand for services or ability to provide services that are coordinated with community partners a regional emergency response agencies.
The HVA is performed at the executive level of hospital leadership and with NICU leadership participating to ensure it includes the unique need of the vulnerable NICU patients. NICU leadership must be knowledgeable of their role in the communication and response chain of command and understand the expected staff roles and responsibilities during a disaster.

NICU leadership should conduct their own analysis of risk to identify threats that are most relevant to them and can be planned for and mitigated against at the NICU level. Emergency response should include collaboration with Obstetric leadership to ensure that vulnerable Obstetric patients continue to have NICU support.
This Toolkit will:

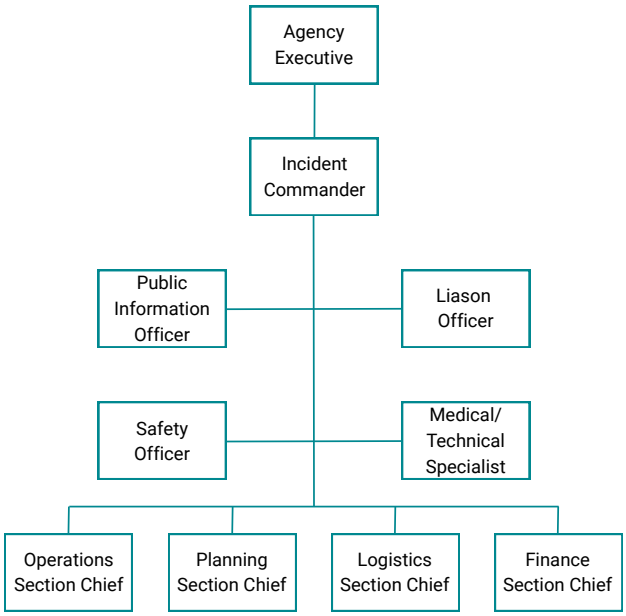
- Introduce NICU leadership to the Hospital Incident Command System (HICS)
- Describe the principles of conducting a Hazard Vulnerability Analysis (HVA)
- Identify major hazards faced by NICU's in California and provide suggested mitigation and response planning
- Provide Appendices with sample check lists, job action sheets, and information transfer sheets for specific hazards
- References for further information and training

Part I: Introduction to the Hospital Incident Command System (HICS)

The Hospital Incident Command System (HICS) is intended to give NICU leadership a general understanding of the organizational structure. FEMA ISU100.HC is an online course that can be assessed for more in depth understanding of the principles of incident command. NICU leadership should review their own institution's Emergency Operations Plan (EOP) to understand their role in their hospital's chain of command.

This system is endorsed by the California Association of Neonatologists (CAN) and the California Perinatal Quality Care Collaborative (CPQCC).

Basic principles that apply are:
Chain of Command: There is an orderly line of authority within the organization.
Unity of Command: Every individual in the organizational structure is accountable to only one designated supervisor.
Span of Control: Each supervisor is limited to 3 subordinates.



Agency Executive: CEO or equivalent, delegates responsibility for incident response to Incident Commander.
Incident Commander: Has overall responsibility for the response and sets objectives. The Public Information Officer, Safety Officer, Liaison Officer and Section Chiefs report directly to the Incident Commander.
Public Information Officer: Conduit for incident information to all internal and external stakeholders including the media.
Safety Officer: Responsible for the safety of all organization personnel.
Liaison Officer: Point of contact for supporting agencies.
Operations Section Chief: Conducts tactical operations.
Planning Section Chief: Prepares incident Action Plan, collects and evaluates information and maintains resource status and documentation.
Logistics Section Chief: Provides support and resources to meet incident objectives.
Finance Section Chief: Provides accounting, procurement, time recording and cost analysis.
Med/Tech Specialists: Individuals within an organization with an area of expertise that is critical to specific response. They will be assigned to the appropriate area of the organization and report to the Incident Commander.
NICU: Staff will understand their responsibilities to leadership and may be assigned as Med/Tech Specialists when neonates are impacted by the incident.

The Joint Commission requires *at least two activations of the EOP per year* EM.03.01.03. These can be done through live exercises or actual incidents and will provide leadership and staff to review their roles and responsibilities, test equipment that would be used during a disaster and test response plans as they apply during scenarios.

Part II: Six Elements of Disaster Response

The Joint Commission has determined six critical areas of emergency response based on lessons learned from past large-scale disasters.[1]

I. Communication

- Organizations must develop a plan to maintain and standardize communication pathways both within the organization and with critical community resources.
  - Communications plans will include:
  - How to notify staff that emergency response procedures have been initiated
  - How to communicate information and instructions to medical staff and licensed independent practitioners
  - How to notify external authorities, patients and their families the media and suppliers of essential services that emergency response measures have been initiated
  - How and under what circumstances the organization will communicate with other healthcare organizations in the contiguous geographic area regarding potential need to move patients
  - Systems will be developed when land lines and cell phones fail and should include options for internal and external communication

II. Resources and Assets

- A plan will be developed for obtaining all supplies, equipment, and medications required until the disaster is resolved. Examples: small gauge IV supplies, infant nutrition, neonatal specific supplies, oxygen, blankets and neonatal specific medications.
- Identify vendors outside of the region in case the disaster spreads through the local region
- Develop a plan for how to communicate with other nearby centers for sharing resources

III. Managing Safety and Security

- Plan how to coordinate with security agencies including the local police and community disaster resources
- Plan for managing hazardous materials and waste
- Plan for determining how staff family, visitors and emergency volunteers will enter and leave the facility
- Develop a procedure for identifying authorized care workers
- Develop a plan to prevent the entry of authorized personnel into damaged areas
- Develop a plan for traffic control for arrival and departure of emergency vehicles

IX. Manage Staff Roles and Responsibilities

- Define roles and responsibilities in Emergency Operations Plan (EOP)
- Plan for staff training and annual competency updates

- Create quick reference safety manuals and guides (options need to be available during power outages)
- Identify and assign staff members to cover all essential staff functions under emergency conditions immediately and beyond 24 hours

X. Managing Utilities

- Identify alternative means for providing electricity, water for care and consumption, medical gases and vacuum systems
- Identify means to acquire fuel for building operations and essential transportation

XI. Clinical and Support Activities

- Develop a system to document and track clinical information when utilities and communication are interrupted-Electronic Medical Record (EMR) Down Time

Part III: The Hazard Vulnerability Analysis

The Joint Commission requires each institution to conduct an annual Hazard Vulnerability Analysis (HVA). This allows organizations to identify their threats and analyze organizational preparedness to meet those threats. NICU leaders can use Hospital-wide HVA and review it with their staff to determine which hazard is the most relevant to their unit.

Basic elements of the HVA begin with a group session and look at all hazards for analysis. Examples include Natural Disasters (Flooding, wildfire, Earthquakes), Human Incidents (Active shooter, Bomb scare), Technological Crises (External Hack of Hospital systems for ransom, computer failure), and Hazardous Material Accidents (chemical fire, radioactive accident).

- Kaiser HVA Tool and Instruction Sheet
- Example HVA Templates

Part IV: Specific Hazards

I. Natural Disasters

Natural disasters include the following events: earthquakes, tsunamis, wildfires, landslides, weather events, volcanic activity, floods and drought. Most involve loss of power, interruption of outside communication and may include building damage. All natural disaster response plans require planning for a stand-alone capacity, staffing shortages and possible evacuation.

Staffing

Develop a plan for staffing if staff are unable or unwilling to report to work for any reason. Develop a plan for food, water and personal supplies for potential long-term housing to support staff on site.

- Develop a plan of where staff will be pulled from in the event of a NICU staffing shortage

- Develop a plan for vetting volunteer staff via the hospital emergency credential plan and how to provide a temporary ID before reporting to the NICU.
- All supplemental staff will be paired with NICU staff for supervision and guidance and assigned lower acuity patients.
- When supplemental staff numbers are high, treatment teams can be created with NICU staff as supervisor for each team.
- Staffing rations may exceed the recommended ratios until additional staff are available or evacuation is ordered.

II. Evacuation

When the infrastructure is compromised and patients are in danger or the stand-alone capabilities are exhausted, it may become necessary to evacuate patients to a safer area.

- Develop a plan for Emergency evacuation for your NICU. (See Appendix A)
- Establish roles and responsibilities and rehearse these roles to ensure efficient and easy access to emergency equipment, supplies and documentation forms.
- Confirm that for Horizontal and Vertical evacuation is coordinated hospital wide and the space is adequate for the NICU patients.
- Develop a plan for the three types of evacuations:

Horizontal: Moving patients from an impacted area of the hospital to a designated safe zone on the same floor.
Vertical: Internal evacuation within the hospital to a different floor.
External: Moving patients outside the facility.

Evacuations will be directed by the Incident Commander via the Hospital Command Center (HCC) and will be coordinated with EMS. The NICU plan should specify the safest locations for in hospital and out of hospital locations. The order of patients evacuated will depend on the immediate danger and should be included the hospital and NICU plan.
The procedure for evacuation should include the methods for providing respiratory support, hydration and thermoregulation and staff trained for each method.

- Ensure that self-inflating Ambu bags are available for all patients
- Develop a plan for patients on Continuous Positive Airway Pressure (CPAP) that describes the process of transitioning to high flow nasal cannula
- Develop a plan for portable suction
- Develop a plan for IV infusions, including those that can be temporarily stopped and those that require some method of ongoing infusion (i.e. Vasopressor support)
- Develop options for thermal support and where those supplies are located including hats, blankets, and chemical warming mattresses
- Develop a plan to provide all methods of nutritional support
- Develop a list of essential evacuation equipment and take photos for staff unfamiliar with that equipment. These lists should be available in Hard Copy. (See Table 4A)
- Develop a list of emergency bedside supplies and create storage for them near the patients that are readily obtained (Patient and Staff Support Supplies Grab and Go Bags) Consider backpacks or soft side travel bags for a means of storing and moving supplies
- Develop a process to check these supplies periodically for expiration dates and battery power
- Develop procedures for providing routine and emergency care during and after evacuation. (Example: Use procedures in place for moving a sick baby to the OR or MRI)

III. NICU Disaster Documentation Forms

Develop forms and guidelines for all documentation requirements during a disaster and place them with the evacuation equipment. Include a copy of the units Emergency Operations Plan Emergency, response procedures specific to the NICU, emergency contact information, computer downtime charting forms, consent to treat and transfer forms.
Create Job Action Sheets that are laminated and can be distributed during a disaster to each discipline with their responsibilities listed.

Roles and Responsibilities

Define each key staff position and train their roles and responsibilities including initial NICU Orientation staff meetings, annual competencies and periodic drills. Key staff roles include minimally, Neonatologist, Nurse Practitioners (when present), Nurse Manager, Charge Nurse, Bedside Nurse, Transport Nurse, Respiratory Therapist, and Unit Clerk.

Emergency Medication Administration

Develop a procedure for obtaining medications for each patient as ordered, transport code cards, and Unit Code Carts.
Develop a system to access the electronic dispensing devices (PIXIS) during a power outage.
Develop a stock inventory for emergencies that is based on average weekly usage determined by Pharmacy record reviews.

Transport

Develop a plan to transport patients to other hospitals when necessary. Determine community ambulance availability. Establish mutual agreements with community NICU's who could admit and assume care of the patients you need to move. Develop a Consent Form for these transports and a template of required documentation and information for a safe move. Place these documents in the To Go Kits. See Appendices for example templates of NICU Emergency Patient Transfer Planning Checklist, NICU Emergency Transport Consent Form, & NICU Emergency Patient Transfer Information Sheet.

Table 4A: Patient and Staff Support Supplies
Emergency Bedside Supplies:
Resuscitation:
• Bag/mask • Bulb syringe • Heimlich v.
Assessment:
• Stethoscope • Pen/paper • Watch
Thermoregulation:
• Thermal blankets • Chemical warming mattress • Cap
Feeding/changing:
• Formula/nipples • Diapers/wipes • Gavage supplies
Hand hygiene:
• Alcohol gel • Sterile gloves • Alcohol wipes • Saline wipes
General Support:
Diapers
Breastfeeding supplies for pumps, etc.
IV supplies
Bulb syringes
Mobile Disaster Boxes:
Headlamps Intubation
Suction
IV start supplies
IV fluids
Calculator
Scissors
Staging Area Supplies:
Ventilators
Suction machines
Food and water for staff
Nutritional supplies for patients

Table 4B: To Go Kit Contents
Job Action Sheets
Phone Numbers (internal, external, staff)
Critical Equipment Photos
HICS Form 214, 255, 260
Hospital Emergency/Disaster Status Report Form
Drill Critique Form
Bedside Operational Forms (Kardex, MARs, consents, orders, progress notes specimen slips, transport papers
Office Supplies: pens, pencils, clipboard

Part V: TRAIN® (Triage by Resource Allocation for Inpatients)

The TRAIN® tool that determines level of transport required for evacuation based on resource utilization. The tool aligns with local EMS protocols for transport type capabilities and expert opinion. The California Association of Neonatologists and the District IX AAP Section on Perinatal Pediatrics have endorsed TRAIN®. For TRAIN® to be effective, it is necessary for all NICU leaders to begin using TRAIN® nomenclature to categorize the infants under their care. This should be done daily so that the information is available immediately should evacuation be required. It is imperative that regional Offices of Emergency Services (OES) have buy into this system of triage. TRAIN® cannot be used without regional agreement and cooperation with your OES.

I. Introduction

When large-scale, movement of patients occurs, as in a hospital evacuation or regional catastrophe, normal patient referral networks and transport team protocols will be suspended. Control of ambulance assets will be under the control of regional OES or Medical Operations Centers (MOC). Requests for patient movement will also be regulated by the OES or MOC.

- This centralized control is critical to the smooth flow of patients throughout the region. Individual NICU leaders will have limited visibility on the status of other NICUs in the region. If multiple hospitals are evacuating and each NICU leader attempts to secure bed space in non-affected hospitals, control of patient movement will rapidly deteriorate.
- Regional OESs and/or MOCs can track the status of all area hospitals and are best positioned to distribute available ambulance assets and assign beds to evacuated infants.

TRAIN® is an ambulance asset triage tool, designed to maximize efficient use of BLS, ALS, CCT and Specialized Ambulance services during a large disaster.

- In adult ICUs and PICUs, the critical condition of the patient is implicit. When they are no longer critical, they are moved to adult medical/surgical wards or pediatric wards. When ICUs and

PICUs are evacuated, it is appropriately assumed that they will need critical care ambulances.

- NICU patients often do not move after they recover from the critical phase of their illness and may convalesce for months in the NICU. NICU patients cover a broad spectrum of acuity. At one end is the ELBW infant on ventilator support, pressor support, TPN and rigid environmental control and the term surgical, HIE or PPHN patient requiring advanced life support. On the other end of the spectrum is the convalescing ex-preemie in an open crib and room air, learning how to nipple feed.
- It makes no sense to dispatch critical care ambulances for all NICU patients and this is not efficient utilization of resources. Nor is it safe to dispatch BLS ambulance assets for critical babies.
- TRAIN® allows regional OESs and MOCs to dispatch the appropriate mix of ambulances to a given hospital for safe NICU evacuation.

II. TRAIN® Categories

- It is recommended that the patient's primary care nurse assign the appropriate TRAIN® category daily. This assignment can be tracked in the EMR, on a central patient status board or on shift change sign out sheets. Each NICU is free to determine which method is most efficient for their unit.
- Should evacuation appear imminent, The TRAIN® patient list can be quickly vetted by the Senior On-Service Neonatologist and Shift Charge Nurse. This information is given to the HICS chain of command to the HCC and from there, reported to the regional OES/MOC.

Table 5A: TRAIN ® Assignment Grid

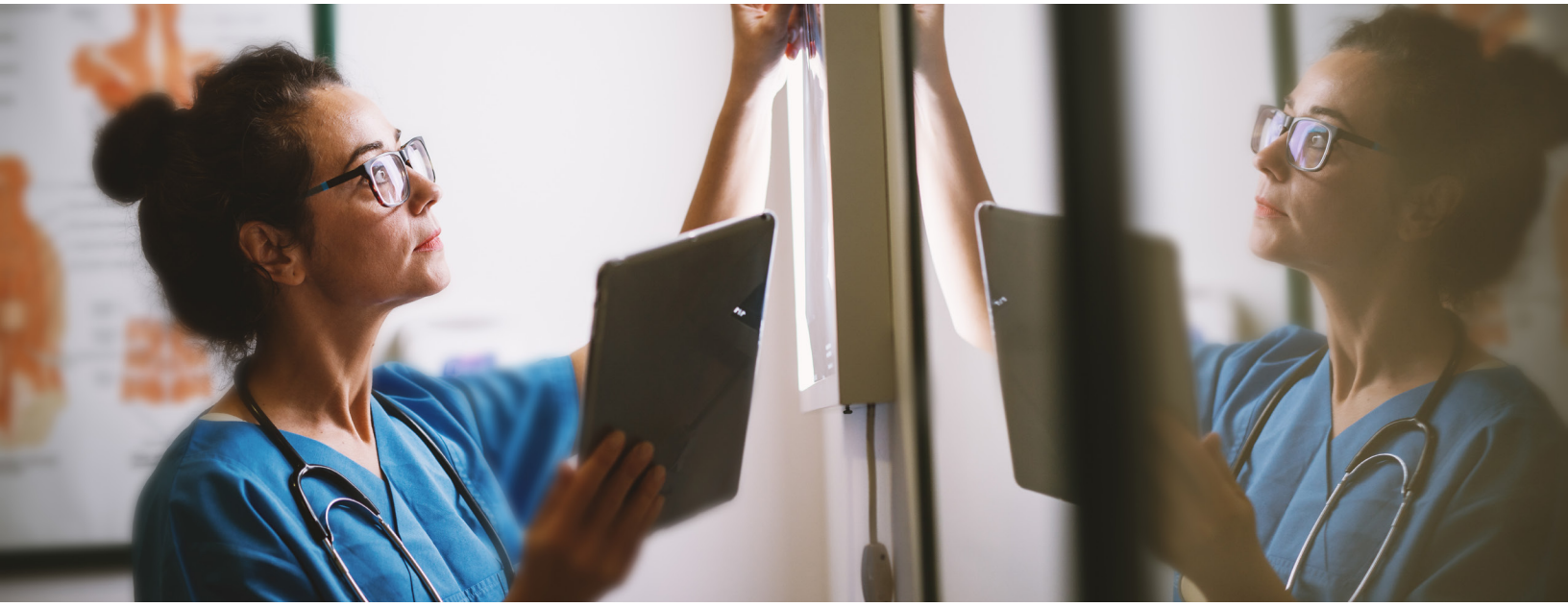
Transport	**Car**	**BLS**	**ALS**	**CCT**	**Specialized**
Life Support	Stable	Stable	Minimal	Moderate	Maximal
Mobility	Car/Carseat	Wheelchair or Stretcher	Wheelchair or Stretcher	Stretcher	Incubator or Immobile
Nutrition	ALL PO	Intermittent Enteral	Continuous Enteral or Partial Parenteral	TPN Dependent	TPN Dependent
Pharmacy	PO Meds	IV Lock	IV Fluids	IV Drip x1	IV Drip ≥2

Life Support	Minimal =	Hood or low flow cannula O2, chest tube, etc.
	Moderate =	CPAP/BIPAP/hi-flow, conventional ventilator, peritoneal dialysis, externally paced, continuous nebulizer treatments, etc.
	Maximal =	Highly specialized equipment (neonatal ventilator, HFOV, ECMO, iNO, CVVH, Berlin Heart, wt ≤ 1.5 kg, etc.)
Pharmacy	IV Drip =	Pharmacologic agents, not TPN, that cannot be discontinued for transport
Mobility	Car/Carseat =	Able to ride in automobile with age-appropriate restraints
	Stretcher =	Includes peddiatric transport gurney with size-appropriate securement harness
	Incubator =	Transport incubator with equipment for connecting to ambulance
	Immobile =	Unsafe to move without special medical equipment (neurosurgical/ bariatric)

III. Hospital Levels

TRAIN® will quickly assign ambulance asset needs but does not specify NICU level. While it may seem intuitive that higher level ambulance needs correspond to higher level NICU needs, this is not always true. In a pilot exercise in San Diego County in 2011, some of the patients were assigned to lower level NICUs than their condition required. Examples follow:

- A stable preop congenital heart patient awaiting a bed at the regional level IV NICU was on room air and a PGE drip. An orange or yellow category TRAIN® assignment could be made. In the exercise, the patient was assigned to a LEVEL II facility by the MOC, where clearly this patient required access to the regional Level IV NICU.
- Stable and convalescing surgical patients had yellow TRAIN® assignments. These babies were assigned to regional Level II facilities.
- In the above cases, these issues were discovered before simulated patient movement and corrections were made, but at the cost of additional delay. Communications between the NICU and the MTS allow these issues to be identified and resolved, if possible.
- In some cases, patient movement will necessarily need to be very fast (e.g., encroaching wildfire, severe building damage from earthquakes). Also, beds may not always be available at the ideal desired level. Thus, it may not always be possible to move all babies to the closest level of NICU care immediately. In these instances, babies will be moved temporarily to lower levels of care. Even in these instances, it is useful to assign NICU levels. This will allow the OES/MOC to track infants sent to lower levels of care and move them to an appropriate level NICU as soon as bed space allows.
- It is recommended that NICU leaders modify TRAIN® color categories with the appropriate NICU level need using criteria established in the 2012 AAP Committee on Fetus and Newborn policy statement on “Levels of Neonatal Care”.
    - Baby Girl Alpha: Yellow II
    - Baby Boy Bravo: Red III
    - Baby Boy Charlie: Red IV
    - Baby Girl Delta: Yellow III



Appendix A: NICU DISASTER AND EVACUATION PROTOCOL

Example from Good Samaritan Hospital, San Jose, CA

I. NICU General Disaster Plan

Initiation

At the first indication of problems (fire, structural damage, electrical power, medical gases, etc.):

- Dial [number], report location (specific room of the NICU) and nature of emergency.
- Notify respiratory therapy and the neonatologist on duty.
- Ancillary personnel who will respond to an overhead code will go to the NICU and report to the charge nurse.

Communication

The manager on duty or charge nurse will contact the command center using available communication.

- The direct connection function on the Nextel phones will work during a power failure and should be used for internal communication. Hospital phones may not be operational.
- Communication with the Hospital Command Center:
  - 2-Way Radio/Disaster Phone. Managers on duty or Charge nurse should obtain the radio from its location at the NICU secretaries' desk. The radio is preset to the channel that will communicate with the hospital's Incident Command Center in [location] once it has been established that the command center has been "opened."
  - Landlines to [location and phone number]
  - Bypass phone in NICU: [phone number and switchboard number]

Maintaining ventilation:

- Hand ventilate infants using the patient's bedside bag or self-inflating bag found in the emergency kits.
- Turn off bedside bags if not in use to conserve medical gases.
- If loss of oxygen or compressed air persists for more than 5 minutes and evacuation is not necessary, Respiratory Therapy will back feed H-cylinders of oxygen and compressed air into the life-support panels.
- iNO can be delivered via a modified anesthesia bag as outlined in the iNO policy.
- Suction:
  - Use portable suction for ETT suctioning of critically ill infants located in the med room of the NICU. [access code]
  - Maintain chest tube systems to water seal if the collection chambers remain below the infant's chest, even if the wall suction is not functioning.
- Maintaining Heat:
  - Term and late pre-term infants > 34 wks.: Use regular and warmed blankets as needed to maintain temperature.
  - For infants in incubators and those < 34 weeks: Cover infant with thermal blanket and hat located in backpack. Wrap securely in regular blanket over the thermal blanket to keep it in

place.
- Maintaining Infusions:
  - Check the pump battery power. If it is not working, locate another pump with a functional battery.
  - If unable to locate battery powered pump, give slow IV pushes of appropriate IV fluids to maintain patency of the IV; do not exceed the hourly IV rate ordered.
  - Provide continuous feedings manually, if necessary, with small intermittent boluses every 30-60 minutes.
- Monitoring vital signs
  - Use battery powered pulse oximeters for infants who require continuous monitoring.
  - If portable monitoring equipment is not available, assess an infant's color, respiratory status and heart rate.
- Lighting
  - Emergency backup battery operated floodlights activate if power is lost.
  - Use battery lanterns located at bedsides in each room.
  - If necessary, use flashlights located in emergency kits.
- When power and gas are restored:
  - Ensure that all patients are safely resecured to support devices, and that all equipment is functional.
  - Each patient's nurse must document on the flow sheet and objective assessment of the patient's condition (like that done at the start of each shift), as well as a description of interventions to maintain life support during power/gas loss.
  - The charge nurse must complete an incident report totaling the time of power/gas loss and restoration, a description of actions taken by staff, and any specific effects.

II. NICU Evacuation Plan

Total Evacuation

- Decisions to perform a total evacuation of the NICU or areas of the NICU will be made by the Hospital Incident Commander or the Fire Chief.
- Note: Under emergency conditions when patients are in immediate danger, partial evacuation of at-risk patients must occur. The responsibility for making this decision is left to the manager/ assistant manager, if in house, or charge nurse in consultation with the neonatologist on duty. If they are not available, the bedside nurse is responsible for removing the patient from immediate danger.
- The people responsible for conducting the NICU evacuation are the neonatologists and Charge nurses.
  - The charge nurse will assign duties and ensure that processes are followed according to the Evacuation Procedure in this document.
- Infants may be evacuated to another area within the hospital or to a designated area outside the hospital.
  - Horizontal Evacuation: first choice is second floor MBU Nursery [door code].
  - Vertical Evacuation. In the event of a need to make a vertical move to evacuate the second floor, babies can be moved (by stairs only, unless the elevators are cleared by the Incident Commander, Fire Department or Safety and Security) to the nursery in the Pediatric Ward on the first floor or outside the hospital (destination will be determined by the Hospital Incident

Commander).

- Once evacuated, personnel are to remain at the designated evacuation site and are not to return to the evacuated area unless ordered to do so by the Fire Department, nursing supervisor, or safety coordinator.
- Emergency Bedside Backpacks. Emergency backpacks are located at each bedside one for each patient. They contain:
  1. Self-inflating anesthesia bags and masks
  2. Heimlich valve
  3. Bulb syringe
  4. Stethoscope
  5. Porta-warmer
  6. Thermal blankets and hats
  7. Formula & nipples
  8. Feeding syringes
  9. Diapers & wipes
  10. Flashlight
  11. Notepad and pen
  12. Watch
  13. Hand sanitizer
  14. Sterile gloves
  15. Sali wipes & alcohol wipes
  16. Transport tape
  17. Whistle

- NICU Disaster Boxes. Several red disaster boxes will be available for each 1-2 rooms of the NICU. They contain commonly used supplies:
  1. Intubation supplies: ETT, stylettes, laryngoscopes & blades
  2. IV access supplies
  3. Portable suction machines
  4. Suction catheters and tubing
- Personnel to assist with the evacuation will be made available through the nursing and personnel pools.
  1. In a disaster, the nursing supervisor, or designee, is responsible for initiating the emergency call tree for the nursing department. The nursing supervisor will assign nursing and ancillary staff to the NICU to assist with the evacuation, as requested by charge nurse.
  2. The number of extra staff needed will be estimated by the following:
     - 1 person for every 2 low acuity patients (no respiratory support)
     - 1 person for every moderate acuity patient (cannula/cpap)
     - 2 persons for every high acuity patient (on mechanical ventilation)

III. Disaster/Emergency Evacuation Procedure

This may be performed simultaneously, depending on the type of emergency). Evacuation will be performed upon order from the Hospital Incident Commander or Fire Department Chief. The following will be put into place regardless of the type of emergency/disaster:

Charge Nurse:

- Obtain 2-way radio/disaster phone from secretaries' desk ("code triage" overhead page means that the Command Center is open, and you should use the disaster phone/2Uway radio).
- Obtain duty cards from inside pocket of Emergency manual, and forms from Emergency Management Recording Forms box ("code triage" overhead page means that the Command Center is open, and you should use the disaster phone/2Uway radio).
- Designate area leaders for room 1, 2/3, 4/5/6, & 7/8 and give them "bedside nurse" duty cards to pass out to EACH bedside in their areas.
- Distribute duty cards to other individuals listed on duty cards.
- Gather extra Nextel phones (relief tech, RT 2, GSH 2, and PICU) and distribute to area leaders
- Consider using "emergency" button on Nextel phones to communicate with area leaders, relief nurse, neonatologist, and secretary all at once.
- Consult with the neonatologists to review the patients and to determine the order of potential evacuation (decision to evacuate will be made by Command Center).
- Obtain file box from Emergency Management Reporting Forms [specify location].
- HICS form #214 is used to document your actions (i.e., any communications with the Command Center, notifying Management Team, interventions during incident – moving patients, etc.).
- Form #254 and form #255: Give to secretary. Have her place labels on them or fill them out by hand with patient names. Have a runner take the forms down to the Command Center.
- Designate a relief nurse to set up an evacuation site (send a buddy and Nextel phone along, if possible) and gather other supplies listed on their duty cards.
- Bring Emergency Manual, Emergency Management Recording Forms box, charge nurse rand, daily assignment sheet, and phone list if/when evacuating.

Neonatologist:

- Collaborate with the charge nurse in triaging infants.
- Collaborate with the Charge Nurse in assigning a practitioner or relief nurse to
- Go to the evacuation site with the first infants and function as coordinator.
- Initiate the neonatologists' emergency call list.
- Assist with stabilization and transport of the sickest infants.

Secretary:

- Remain stationed at the desk as long as possible to send and receive communications.
- Notify the medical and nursing directors of the evacuation (if they are not already present.
- Bring an updated census to the evacuation site.
- Act as scribe for forms as directed by charge nurse.

Relief Nurse:

- Distribute portable suction to rooms if sheltering in place. Bring portable suction along if evacuating.
- Gather portable monitors from the counter outside NICU staff restroom and other standing portable monitors if time allows.
- Gather bassinettes (open cribs) if time allows.
- Assign ancillary helpers for purposes of gathering and carrying supplies as needed and set up evacuation site as instructed by charge nurse & neonatologist.
- Mobilize any additional transport equipment applicable to the situation (bring a buddy, if possible).

- Assist charge nurse with other duties as needed.
- Take role of all staff and patients at evacuation site as they arrive.

Area Leaders Will Advise Others in the Room to:

- Place ID bands on all infants.
- Place hats on all the infants and wrap them in a blanket.
- Place patient label on each infant's hat and secure w/ tape.
- Assemble evacuation aprons, disaster backpacks, patient charts, labels, and Kardex's.
- Obtain downtime charting forms, if Meditech is down.
- Make sure all lines are heplocked if evacuating unit.
- Obtain and fill out pink Patient Evacuation Tracking Form (HICS #260) for each patient.

Respiratory Therapy:

- Organize E cylinders and H cylinders to be used at evacuation site.
- Distribute Neo puffs to bedsides, if sheltering in place.
- Bring Neo puffs along, if evacuating.
- Gather red disaster (intubation) supply boxes.
- Shutoff gas valves if indicated by order of neonatologists, charge nurse or Fire Marshall.
- Assist with infants on nasal cannula, CPAP, or ventilators.

Bedside Nurses:

- Prepare infants by affixing ID band to limb.
- Infants should be wearing hats and wrapped in blankets.
- Place an identifying patient label on each infant's hat and secure with tape.
- Assemble disaster backpacks, patient charts, patient labels, and shift Kardex's (if time allows).
- Disconnect as many tubes and wires as possible, if evacuating.
- Heplock all IV's, including central lines, if evacuating.
- Disconnect chest tube drainage systems from suction and place to water seal if evacuating. Keep drainage system below the level of the chest.
- Fill out pink Patient Evacuation Tracking Form (HICS #260) for each patient.

Ancillary Staff:

- Report to the charge nurse to receive instructions.
- Assist charge nurse, area leaders, and relief nurse in gathering and carrying supplies, as needed.
- Give special attention to maintaining clear aisles and mobilization of equipment & supplies needed for the evacuation.
- Carry disaster backpacks, patient charts, and other supplies to evacuation sites.

IV. Evacuation

Horizontal Evacuation

- For horizontal evacuation, transport all infants to the nearest contiguous smoke zone on the same floor. Leave infants on warmers, in isolettes, or in open cribs, if possible. Bring along IV fluid and pumps, if possible. The first choice will be the [location].

Vertical Evacuation

- For vertical evacuation, transport infants to ground floor or basement in the following order, with the [location] the first choice and the [location] the 2nd choicea. Outside the hospital, one of the four Assembly Areas will be utilized. The Hospital Incident Commander will determine the specific destination.
    - **Infants who are the least sick** (without oxygen, chest tubes, etc.): Use the evacuation vests to transport up to 4 infants at a time (2 in each vest, if possible).
    - **Infants receiving oxygen per nasal cannula or hood** may have the oxygen disconnected if necessary to evacuate the infants quickly, or if time, use E cylinder tanks where available.
    - **Infants requiring CPAP or mechanical ventilation** will be hand ventilated using the self-inflating anesthesia bags or CPAP bags with E cylinder oxygen, if possible.
    - Do not use elevators for evacuation unless specifically ordered to do so by the Hospital Incident Commander or a Fire Department official.
        - **Using three people**: One carries the infant (in arms or in bassinet insert); one person ventilates the infant; and one carries the oxygen tank.
        - **Using two persons**: Either (1) place infant and oxygen tank in bassinet insert, and one person carries bassinet while one person ventilates the infant, or (2) one carries the infant and hand ventilates, and the second person carries the oxygen tank.
    - If visitors are present, have them assist in moving supplies or infants.
    - If time permits, the transport equipment is accessible, and the use of the elevator has been authorized, the transport nurse will use the transport incubator to evacuate the sicker, smaller infants.

As soon as the evacuation area is reached, assessment and stabilization should proceed with the designated nursing and medical coordination directing care:

- Infants receiving hand ventilation will require gas flow (EU or H cylinders of oxygen and compressed air) as soon as possible.
- Evacuation supplies should be distributed, as necessary.
- After evacuation is complete, personnel are to remain at the designated evacuation site and are not to return to the evacuated area unless ordered to do so by the Hospital Incident Commander or Fire Department Chief.
- During Evacuation, communication between the NICU, Hospital Incident Commander and County Department Emergency Operation Commend Center must be taking place

Transport to Outside Facilities:

- Once evacuation is initiated, alternative arrangements for transport of infants to other NICU's should be considered if the NICU cannot be repopulated.
- Communication must be established between the Hospital Incident Commander, the County Department Emergency Operation Commend Center, and the Northern CA Perinatal Transport System:
    - Less sick infants can be sent to other Level 2 nurseries in the surrounding area.
    - Sicker infants should be sent to other Level 3 nurseries.

Appendix B: JOB ACTION CARDS

Click on a Job Action Card to jump to the corresponding page. It is recommended to print each card, laminate, and place with emergency kits.

Area/Room Leader (RN) Job Card

- Prepare infants by affixing ID band to limb.
- Place a patient label directly on each infant's back (skin) and secure with transparent dressing for identification in case the ID band comes off.
- Infants should be wearing hats and wrapped in blankets.
- Place an identifying patient label on each infant's hat and secure with tape (Labor Pool/Ancillary Helpers will assist in carrying supplies, as needed).
- Gather disaster backpacks, patient charts, patient labels and shift Kardex's.
- DO NOT EVACUATE WITHOUT AN ORDER AND GUIDANCE FROM THE INCIDENT COMMANDER.
  If ordered to evacuate the NICU by the Incident Commander:
  - Disconnect as many tubes and wires as possible.
  - Heplock all IV's (including central lines).
  - Disconnect chest tubes from suction and use Heimlich valve.
- Assist others in the room completing tasks on their Job Cards.
- Fill out a HICS Form 260 – Patient Evacuation tracking Form for each patient. A copy must stay with the patient and a copy for each patient in your room is given to the Unit Clerical Leader (Secretary).
- Provide updates regarding your area's progress/status via Nextel phone to Inpatient Unit Leader (Charge Nurse).
- Keep Bedside Nurse in your area updated with information as it comes to you. If you have not heard from the Inpatient Unit Leader (Charge Nurse), try to reach him/her for an update periodically.
- Direct Labor Pool/Ancillary Helpers assigned to your area to gather/carry backpacks, charts and other supplies for evacuation (equipment photos are available in the NICU Disaster Documentation & Forms To Go Kit, if needed to aid Labor Pool/Ancillary Helpers in finding equipment.

Bedside Nurse (RN) Job Card

- Prepare infants by affixing ID band to limb.
- Place a patient label directly on each infant's back (skin) and secure with transparent dressing for identification in case the ID band comes off.
- Infants should be wearing hats and wrapped in blankets.
- Place an identifying patient label on each infant's hat and secure with tape (Labor Pool/Ancillary Helpers will assist in carrying supplies, as needed).
- Gather disaster backpacks, patient charts, patient labels and shift Kardex's.
- DO NOT EVACUATE WITHOUT AN ORDER AND GUIDANCE FROM THE INCIDENT COMMANDER.
  If ordered to evacuate the NICU by the Incident Commander:
  - Disconnect as many tubes and wires as possible.
  - Heplock all IV's (including central lines).
  - Disconnect chest tubes from suction and use Heimlich valve.
- Fill out a HICS Form 260 – Patient Evacuation tracking Form for each patient.

Inpatient Unit Leader (Charge Nurse) Job Card

- Retrieve the NICU Disaster Documentation & Forms Go Kit from the Charge Nurse desk.
- Pull the following from the Go Kit:
  - ALL Job Cards
  - ALL HICS Forms (214, 254 and 260)
  - Emergency/Disaster Status Report Form
- Use HCIS Form 214 – Operational Activity Log for documenting your actions (i.e., communications, moving patients, etc.)
- Direct Unit Clerical Leader (secretary) to notify Medical Director and the NICU Manager on duty of emergency.
- Alert Labor and Delivery Charge RN to the situation and request that a hold be placed on non-emergent deliveries (i.e., inductions and repeat cesarean sections).
- Obtain 2Uway Disaster Radio from Secretary's desk. Upon hearing "CODE TRIAGE" overhead, turn on radio and use for communication with the Hospital Command Center (HCC)
- Fill out the Emergency/Disaster Status Report Form and relay information on that form to the HCC by phone, radio, fax or runner.
- Assign one Area/Room Unit Leader for Rooms 1, 2/3, 4/5/6 & 7. Give each a Job Card, Downtime Forms and HICS Form 260 – Patient Evacuation Tracking Form (to be filled out on each patient).
- Gather and distribute extra Nextel phones (Relief, Tech, RT 2, GSH 2) to Area/Room Leaders and use these phones for communicating.
- Distribute remaining Job Cards to Logistics Unit Leader (Relief Nurse), Respiratory Unit Leader (RT) and Unit Clerical Leader (Secretary). Instruct them to follow the steps on the Job Cards.
- Consult with the Physician Unit Leader (Neonatologist) to review patients and determine order of potential evacuation based on level of acuity and nature of event. DO NOT EVACUATE WITHOUT AN ORDER AND GUIDANCE FROM THE INCIDENT COMMANDER.
- Obtain HICS Form 254 – Master Patient evacuation Tracking Form and Emergency/Disaster Status Report Form. Give to the Unit Clerical Leader (Secretary) and instruct her to follow the steps listed on her card.
- Direct Labor Pool helpers/support persons to assist Area/Room Leaders and Logistic Unit Leader (Relief Nurse) in gathering and carrying supplies.
- If ordered to evacuate the NICU, bring NICU Disaster Documentation & Forms Go Kit, Charge Nurse Rand and daily assignment sheet.

Logistics Unit Leader (Relief Nurse) Job Card

- Distribute portable suction to rooms, if sheltering in place.
- Bring portable suction along, if ordered to evacuate.
- Gather supplies and mobilize additional resources needed for transporting infants.
- Assign Labor Pool/Ancillary Helpers to help gather and carry supplies. Photos of supplies are available in the NICU Disaster Documentation & Forms Go Kit. Supplies to consider bringing include:
  - Evacuation Aprons
  - Backpacks
  - Disaster Boxes
  - Oxygen Tanks
  - Portable Suction Machines
  - Blue In-house Transport Bags (Med Room)
  - Transport Medications (Acudose)
  - Bassinettes
  - Glucose Meters
  - Transilluminators
  - Baxter Pumps
  - Medfusion Pumps
  - Hospira Pumps
  - Portable Monitors
  - Pulse Oximeters
  - Neo puffs
  - CPAP Machines
  - Available Ventilators
  - Code Cart
  - Lanterns
  - Bath Blankets
  - Baby Blankets
  - Boxes of Nonsterile Gloves
  - Infant Formula (Mostly Enfamil)
- If ordered to evacuate by the Incident Commander, remove breast milk from freezers and put on ice in basins, if time allows.
- Set up alternate care site at the location designated by the Incident Commander and remain there to receive incoming patients.
- Take role of all staff and patients at evacuation site on the Unit Census Sheet as they arrive.

Physician Unit Leader (Neonatologist) Job Card

• Collaborate with the Inpatient Unit Leader (Charge Nurse) in triaging infants. This will most often be done by acuity and nature of event **NOTE: DO NOT EVACUATE WITHOUT AN ORDER AND GUIDANCE FROM THE INCIDENT COMMANDER.**
• Initiate the neonatologists' emergency call list.
• Assist with stabilization and transport of the sickest infants.

Respiratory Unit Leader (Respiratory Therapist) Job Card

• Assist with infants on respiratory support.
• Distribute Neo puffs to bedsides of babies on ventilators to be used during evacuation and at the alternate care site.
• Gather/organize E cylinders and H cylinders along with regulators to be used during and after evacuation.
• Gather intubation boxes, available ventilators, and CPAP Machines to be used at the alternate care site after evacuation.
• **IF ORDERED BY INCIDENT COMMANDER, FIRE MARSHALL, OR FIRE CHIEF**, shut off gas valves to the NICU.

Unit Clerical Leader (Unit Secretary) Job Card

- Remain stationed at the desk as long as possible to facilitate communications.
- Notify the Medical Director, Nursing Director and Assistant Managers of the emergency phone numbers found in the NICU Disaster Documentation & Forms Go Kit.
- Obtain HICS Form 254 U Master Patient Evacuation Tracking Form from the Inpatient Unit Leader (Charge Nurse). Complete by placing patient labels on each sheet or fill them out by hand with patient names. Send copies to the Hospital Command Center (HCC) via phone, fax or send by runner once completed.
- Receive HICS Form 260 – Patient Evacuation Tracking Form from Area/Room Leaders. Send copies to the HCC via phone, fax or send by runner.
- Prepare by gathering the following in case evacuation is ordered:
  - Telephone rolodex
  - Updated census sheet
  - Binder that contains patient labels
  - Visitor binder that contains family contact information
  - Clipboard with the visitor sign in sheet
- Act as scribe for forms as directed by Inpatient Unit Leader

Appendix C: BIOTERRORISM RESPONSE PLANNING GUIDE

Please refer to the California Health Services planning guide on pages 19 through 20 of the below document.

CHS Bioterrorism Planning Guide

Appendix D: BIOTERRORISM TREATMENT RESPONSE

For the most up-to-date CDC guidelines on infection control and preparedness for bioterrorist threats, please refer to the following resource.

Read Full CDC Guidelines

Appendix E: PRE-DISASTER CRITICAL INFASTRUCTURE SELF-ASSESSMENT

Table 4 of the Hospital Evacuation Decision Guide provides a self-assessment tool to help hospitals evaluate critical infrastructure vulnerabilities before a disaster. This resource supports preparedness planning and informs evacuation decision-making.

Critical Infrastructure Checklist

Appendix F: EMERGENCY ACTION PLAN EXAMPLE

View an example of an EAP (Emergency Action Plan) from UCSF Health Department. This toolkit also draws upon University of California, San Francisco (UCSF) Health's Department Emergency Action Plan. We acknowledge UCSF Health for developing and sharing this resource, which provided additional context for this toolkit.

EAP EXAMPLE

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