OLIVE VIEW-UCLA MEDICAL CENTER
POLICY & PROCEDURE

NUMBER: 195
VERSION: 6

SUBJECT/TITLE: RESUSCITATION: ADULT MEDICAL EMERGENCY (CODE BLUE), PEDIATRIC MEDICAL EMERGENCY (CODE WHITE), NEONATAL RESUSCITATION-NICU. EMERGENCY CART LOCATION, CONTENTS AND MAINTENANCE/EXCHANGE

POLICY: An Adult Emergency (Code Blue) Team will be available to respond to all adult medical emergency situations.

A Pediatric Emergency (Code White) Team will be available to respond to all pediatric medical emergency situations

Neonatal Resuscitation in the NICU is not called over the paging system. Neonatal Resuscitation is handled by the NICU RN, RT, and the MD/NP staff. Additional staff will be notified if their assistance is needed.

The location, contents, maintenance, and all exchanges of the adult, pediatric and neonatal emergency carts are standardized and managed by the CPR Committee.

The nursing emergency cart check is performed by a registered nurse daily to ensure the carts are properly locked and secured.

PURPOSE: To provide a consistency in response to resuscitation/code situations, in defining roles, duties, and limiting the personnel required.

To provide guidelines for the location, stocking, checking, maintenance, and exchange of the adult, pediatric and neonatal emergency carts.

To provide guidelines for maintaining emergency carts in a state of readiness ensuring emergency carts are located in the designated area(s), checking the emergency cart contents, documenting availability of equipment and supplies, securing the system, and managing the maintenance and exchange of emergency carts.

DEPARTMENTS: All

DEFINITIONS: **Code Blue** – an emergency situation in an adult patient when there is no cardiopulmonary activity present or critically abnormal to support adequate perfusion to organs and tissues leading to hypoxia, tissue necrosis, and cellular death.

Code White – an emergency situation in a pediatric patient less than 18 years old when there is no cardiopulmonary activity present or critically abnormal to support adequate perfusion to organs and tissues leading to hypoxia, tissue necrosis, and cellular death.

Maintenance of Emergency Cart – includes: cleaning, ensuring appropriate contents, restocking and replacing supplies and equipment when necessary.

PROCEDURE:

CODE BLUE (ADULT)

Any hospital personnel discovering an adult person with a cardiopulmonary arrest shall immediately call for help and proceed with BCLS. A Code Blue shall be called as soon as possible by dialing 114. If a Code Blue occurs on hospital grounds or in a building on the Olive View-UCLA Medical Center grounds within the response area (see map that follows), call the hospital operator by dialing 114. The telephone operator will call 911 if the Code Blue is outside of the code blue team response area.

The operator will also call 911 for Code Blues not within the main hospital building and first and second floor lobbies (see map for dual response zones).

A. ANNOUNCEMENT OF A CODE BLUE:

The operator will announce the area as well as the room number, except in the critical care areas. The operator will differentiate B (as in Boy) from D (as in David) when announcing the Code Blue on the overhead page system. He/she will overhead page the Code Blue at the same time the Code Blue Team pagers are activated.

B. CODE BLUE RESPONSE TEAM:

The Code Blue Team members who carry pagers are as follows:

1. ICU Resident on Call – Director of Code Team
2. Hospitalist on Duty
3. ICU – ACLS Registered Nurse
4. Emergency Department Attending/Senior Resident
5. Anesthesiologist

6. Pharmacist-ICU
7. Pharmacist-ER
8. Respiratory Therapist
9. ER-ACLS Registered Nurse

The following respond to Code Blue, but do not carry a pager:

1. Nurse Administrator/Hospital Administrator
2. Senior Supervision:
   a. ICU Attending/Fellow (Monday – Friday, 0830 – 1700)
   b. Emergency Department Attending/Senior Resident (available for support during off hours)
3. County Sheriff

C. CODE BLUE TEAM RESPONSE:

ICU Team Response Areas:
All Inpatient Areas: 3rd-6th Floor

ICU Team and ER Team Response Areas:
1st and 2nd floor Radiology Department (including Special Procedures- IR, MRI and CT), GI/Pulmonary Endoscopy Lab, Cardiology/Cath Lab, 2F/TB unit. Inpatients will be handed off to the ICU Code Team and Outpatients will be handled off to the ER Code Team.

ER Team Response Areas:
All Outpatient Areas: Laboratory, Urgent Care, Clinics, OSPA, 1st and 2nd floor lobbies, immediate outside lobbies and adjacent parking lots, Mobile Pet Scan Unit, PER and the Psychiatric Playground Area

The response boundary outside the building is Olive View Drive on the south, Kennedy Drive on the west, Saranac Drive on the north, and Reagan Road on the east (see attached map). If it is determined that 911 assistance is required, the person in charge will have County Sheriff notify Communications, and Communications will notify 911 of the emergency situation.

D. OPERATING ROOM:

A surgeon or anesthesiologist shall assume primary responsibility for CPR, but may request assistance from the code blue staff or house staff by paging for a

CODE BLUE to the operating room.

E. EMERGENCY DEPARTMENT (ED):

A CODE BLUE will not be called in the emergency room. If patient arrives in cardiopulmonary arrest or arrests in the ED, the ED team will run the resuscitation efforts and will call a CODE BLUE if appropriate.

F. CODE BLUE PAGERS:

Code Blue Team members have an assigned "code page", which is to be worn at all times by the designated team member. This pager shall be transferred to designated replacement. The team member wearing the code pager is responsible until transfer takes place, to respond to all code blue announcements based on their assignment. The Code Blue will also be paged overhead for clarification of location. The telephone operator shall have a weekly/monthly schedule of the following on-call physicians:

1. ICU Medical Resident
2. Hospitalist
3. Anesthesiologist

Code pagers are tested daily at 0930 by Communications staff. Defective pagers are to be returned promptly to the Communications Office and exchanged for a working code pager.

G. HOUSESTAFF:

Code Blue emergencies are to be run by the ICU Medical Resident/ICU Medical Team or the Emergency Room Attending/Senior Resident. Operating Room codes are run by the Attending Anesthesiologist or Attending Surgeon.

Upon arrival to the code, the ICU Medical Resident or the Emergency Room Attending/Senior Resident is to immediately identify him/herself as the person in charge. It is this individual's responsibility to direct and supervise the code.

If, after responding to the Code Blue emergency, certain members of the code team are not needed, they may be excused by the ICU Medical Resident or the Emergency Room Attending/Senior Resident. Such scenarios, in which only certain members of the team are needed, may occur in the Emergency Department,

Operating Room, and Cardiology. Under such circumstances, the Senior Resident/Fellow/Attending involved in the case may choose to run the code.

The anesthesiologist must assume primary responsibility for intubation. If Anesthesiology is unavailable, the most experienced member of the team, resident vs. respiratory therapist, should perform emergency intubations.

The physician in charge (directing) the Code Blue, is responsible for entering a note in the patient's chart specifically addressing:

1. Estimated duration of the arrest prior to resuscitative efforts.
2. Patient diagnosis.
3. Probable reason or cause for the arrest.
4. Conduct of the arrest, including notations of the physical, pharmacologic, and airway maneuvers and counter-shock therapy.
5. Approximate duration of the resuscitative effort.
6. Outcome of the resuscitative effort.
7. Code Blue response team Physician in charge will sign the Code Blue Record.

The patient's primary physician may be the consultant at the Code Blue emergency.

H. RESPIRATORY THERAPIST:

The Respiratory Therapist will be responsible for the following:

1. Establish airway if anesthesia has not arrived.
2. Provide adequate ventilation and oxygenation.

I. NURSING:

ACLS Certified Nurse: If an ACLS certified nurse is the first one on the scene, he/she may initiate intervention according to AHA algorithms until the ICU Medical Resident and/or Emergency Room Attending/Senior Resident arrives.

ICU – ACLS Certified Registered Nurse: Will respond to Code Blue calls in designated areas with the Code Blue Emergency Tote (see ICU "Code Blue Tote" Contents List).
The ICU Code Blue Tote includes, AED, Ambu Bag, EZ IO Drill and Needles and Alteplase KIT.

Upon arrival to the Code Blue emergency the ICU nurse will:

1. Initially perform BLS survey and if needed, provide high quality BLS
2. Apply electrodes and monitor or AED

The ICU nurse can assist with the following, if needed:

1. Establish IV Access
2. Assist with procedures (e.g., defibrillation, suctioning, intubation, pacemaker, EZ-IO, etc.)
3. Administer IV medications

The ER – ACLS Certified Registered Nurse: Will respond to Code Blue calls in designated areas with a Gurney, AED, Ambu Bag, O2 Tank, O2 Facemask, Yellow isolation Mask and C-Collar.

Upon arrival to the Code Blue emergency the ER nurse will:

1. Initially perform BLS survey and if needed, provide high quality BLS
2. Apply electrodes and monitor or AED.

The ER Nurse can assist, if needed, with the following:

1. Establish IV Access
2. Assist with procedures (e.g., defibrillation, suctioning, intubation).
3. Administer IV cardiac drugs

Medical/Surgical or Clinic Code Blue Nurse assigned to respond to Code Blue emergencies within their own unit/clinic, will be responsible for the following:

1. Initially perform BLS survey and if needed, provide high quality BLS until the ICU or ER Code Team arrives.
2. Documentation on the Code Blue Record
3. Print of the EKG strip.

Nurse Administrator: Will be responsible for the following:

1. Monitoring and evaluating the Code Blue Team.
2. Completing an Administrative Evaluation of "Code Blue" form.

3. Assessing the need for additional team members with specific skills, call if need.
4. Assessing and initiating the availability of a gurney if not available.
5. Assigning staff members to speak with family members if necessary.
6. Completion of Code Blue Record, including required signatures.

J. COUNTY SHERIFF:

Will be responsible for the following:

1. Crowd Control for non-hospital personnel.
2. Hospital personnel crowd control per the direction of a code blue team member.
3. Communicating with Communications if Code Blue outside of the hospital facility.

K. EMERGENCY CART RESPONSE:

Will occur in the following manner:

The ICU-ACLS Nurse will respond with the ICU Code Blue Tote (with AED)

The DEM-ACLS Nurse will respond with gurney, O2 Tank

Emergency Department will respond to the ambulance and Emergency Room 10 minute parking areas.

3rd – 6th Floors and 2F- Infectious Disease/TB Unit: Each unit/area has a designated Emergency Cart.

L. EQUIPMENT AND MEDICATION:

Adult Emergency Carts shall be maintained specifically for adult patients. See - ATTACHMENT I. EMERGENCY CART & EQUIPMENT (DEFIBRILLATOR/AED) LOCATIONS

CODE WHITE (PEDIATRIC)

1. A CODE WHITE will be called for all children <18 years of age STAT. The hospital operator will be called (extension 114) to announce CODE WHITE giving the location and the room number of the cardiopulmonary arrest (i.e., "code white, 4C Pediatrics, Room 104A").
2. Pediatric physician and pediatric RN staff responding to the CODE WHITE will be PALS certified.

A. CODE WHITE TEAM:

The Code White Team Members who carry pagers are as follows:

1. Senior Pediatric Resident (Director of Code Team)
2. Anesthesiologist
3. Senior Emergency Department Resident
4. Pediatric Respiratory Therapist
5. DEM Registered Nurse with PALS certification
6. Nurse Administrator
7. County Sheriff

B. PEDIATRIC STAFF RESPONSE:

1. Pediatric MD will respond to a call for CODE WHITE and will remain until responsibilities have been transferred to the appropriate resident and/or Attending.

a. WARD
- The on-call senior resident will respond immediately to all pages for CODE WHITE and assume primary responsibility for the conduct of the code.

b. CLINIC
- In the Pediatric CLINIC the responding senior pediatric resident will assume responsibility at all codes in children in the clinic.

c. SURGICAL PATIENTS
- The appropriate pediatric resident will assume primary responsibility of Code Leader for children and adolescents <18 years who are hospitalized in the pediatric ward.

C. OPERATING ROOM:

A surgeon or anesthesiologist shall assume primary responsibility for CPR, but may request assistance from the pediatric staff or house staff by paging for a CODE WHITE to the operating room.

D. EMERGENCY DEPARTMENT (ED):

A CODE WHITE will not be called in the emergency room. If a pediatric patient arrives in cardiopulmonary arrest or arrests in the ED, the ED team will run the resuscitation efforts and will call the pediatric senior resident if appropriate.

E. NURSING:

1. PALS certified nursing staff from the DEM will respond to CODE WHITE outside of the 1st and 2nd floor. They will not respond to CODE WHITE in the 4C Pediatric Unit.
2. PALS certified nursing staff from the Pediatric Clinic will respond to CODE WHITE on the 1st and 2nd floor.
3. PALS certified nursing staff from 4C Pediatric Unit will respond to CODE WHITE in the 4C Pediatric Unit only.
4. The Code White Nurse will coordinate and/or assume the role of procedure nurse, medication administration nurse, and documentation for all code whites within the designated areas.

F. ANESTHESIOLOGY:

Anesthesiology will respond to all calls for CODE WHITE

G. RESPIRATORY THERAPIST:

Pediatric or Neonatal Respiratory Therapy will respond to the CODE WHITE. If the patient requires intubation this will be done by either the ED Attending, Respiratory Therapist, Pediatric senior resident or anesthesiology.

H. COUNTY SHERIFF:

County Sheriff responds to all codes for the purpose of crowd control and to assist in transporting the patient to an appropriate location, if necessary.

I. NURSING ADMINISTRATION:

A member of nursing administration will respond to all codes and will assist with crowd control and assure transportation of blood specimens, call for requested procedures (i.e., X-ray) and provide appropriate information to family members.

J. EQUIPMENT AND MEDICATION:

Broselow Pediatric Crash Carts shall be maintained specifically for pediatric patients. See - ATTACHMENT I. EMERGENCY CART & EQUIPMENT (DEFIBRILLATOR/AED) LOCATIONS

K. CODE WHITE ASSESSMENT:

1. Code white records are maintained on the crash carts and records will be completed for the patient chart by the assigned code white nurse or designee.
2. The senior pediatric house staff at the code white is responsible for entering a note in the electronic health record and making reference to:
   a. Estimated duration of the arrest prior to successful resuscitation efforts
   b. Diagnosis of the patient
   c. Probable reason or cause of the arrest
   d. Conduct of the arrest including notations of the physical, pharmacological, and airway maneuvers and counter shock therapy
   e. Approximate duration of the resuscitative effort.
3. Pediatric Cardiac Arrests are reviewed in the monthly Pediatric Collaborative Meeting.
4. There is a Pediatric physician and nursing representation on the CPR Committee.

RESUSCITATION IN THE NICU

A. Resuscitation in the NICU is not called over the code paging system. Resuscitation in the NICU is handled by the NICU RN, RN, RT and the MD/NP staff. Additional staff will be notified if their help is needed. The MD/NP will respond to all codes in the NICU and assume primary responsibility for the conduct of the code. All attendees are NRP certified.

B. The NICU nursing staff may respond to a CPR request outside of the

NICU if staffing allows.

C. Crash Cart in NICU
- NICU RN is responsible for maintaining equipment and inventory.

D. Code Blue Record Neonatal Emergency Flowsheet OV-1540
- On clipboard (crash cart) completed by code RN or designee and placed in patient's chart.

E. Nurse Practitioner/MD enters a note into the chart making reference to:
- Estimated duration of arrest.
- Diagnosis of patient.
- Probable reason or cause of arrest.
- Conduct of arrest including notations of physical, pharmacological, and airway maneuvers.
- Outcome of Resuscitative effort.

F. Documentation will be completed on the Neonatal Flowsheet OV-1540.

STAFF COMPETENCY

A. **REQUIRED CERTIFICATIONS:**

1. All nursing staff (RNs, LVNs, Surgical Techs, CMA, NAs) are required to attend BCLS every two years.

2. RN Nursing Staff in the following areas are required to attend ACLS every two years:
- L&D/OBT
- ICU/SDU
- DEM
- Procedural Nursing, including PICC Team
- PACU

3. RN Nursing Staff in the following areas are required to attend PALS every two years:
- 4C Pediatrics
- DEM

- PACU
- Pediatric Clinic

4. RN Nursing staff in the following areas are required to attend NRP every two years:
   - L&D/OBT
   - 3D Antepartum, Couplet Care/Nursery
   - NICU

B. MOCK CODES:

1. Mock Codes will be conducted, at minimum, annually in all patient care areas to ensure competency. Department managers/supervisors are responsible for making sure the Mock Codes are completed.

2. The CPR Committee, in collaboration with the Nursing Education Department, will maintain a Mock Code Calendar.

EMERGENCY CART LOCATION, CONTENTS AND MAINTENANCE/EXCHANGE

A. LOCATION OF EMERGENCY CART:

A list of the locations for pediatric, adult and neonatal carts will be maintained by the CPR Committee. - ATTACHMENT I. EMERGENCY CART & EQUIPMENT (DEFIBRILLATOR/AED) LOCATIONS.

B. CART CONTENTS:

1. The list of contents for the neonatal, pediatric and adult emergency carts will be determined by and reviewed no less than annually by the CPR Committee. The CPR Committee will distribute any updated lists to the appropriate departments, as necessary. The master list for each emergency cart will be maintained in Central Services and a copy of the content list will be kept in the respective emergency cart binder (e.g., adult content list in binder on

adult emergency cart).

2. Emergency Drug Box

   a. The Emergency Drug Box will contain the list of the emergency medications for the respective cart. Pharmacy shall be responsible for the assembly and distribution of emergency drug boxes. The contents of the emergency drug boxes will be determined based on needs of the specific population (e.g., adult, pediatric, or neonatal). The packaging will include a list that indicates the name, strength, size, quantity, earliest expiration date, manufacturer and lot number of each medication contained in the emergency drug box.

   b. Emergency drug boxes are kept under the Lucite cover of the emergency cart. The emergency drug box is to be opened only in emergency situations. Following the emergency, the opened drug boxes are returned to the pharmacy by nursing and the crash cart is to be immediately exchanged by Central Services. The list of medications supplied in the drug box shall be maintained by Pharmacy and reviewed by the CPR Committee at least annually.

   c. The person assigned to check the crash cart must ensure that the emergency drug box is present and sealed. If it is not, or there is a question regarding the integrity of the contents, staff is to call Inpatient Pharmacy at x76152. To replace the emergency drug box.

   d. The assigned recorder during the Code is responsible for:

      - Documenting the medications ordered and delivered to the patient.
      - Performing an inventory of the used medications to ensure documentation of all medications delivered to the patient.

   e. The Pharmacy is responsible, on a monthly basis,

for:

- Auditing the emergency drug box on each emergency cart for intact packaging and expiration dates.
- Ensuring that the emergency cart is locked following this review.

C. MAINTENANCE AND EXCHANGE OF CARTS

1. Daily Maintenance:
   Each hospital unit location with an emergency cart remains responsible for checking contents of the cart and function of the defibrillator on a daily basis - ATTACHMENT II: EMERGENCY CRASH CART MAINTENANCE. This DAILY inspection is to be performed by Nursing/Licensed Personnel. Documentation of the check is required daily in the notebook atop the cart. The daily maintenance shall include:

   a. A visual inspection of the emergency cart, testing of the equipment outside of the cart, and checking the expiration dates of the medications and supplies daily.

   b. Inspect and test the defibrillator. There are tests that are completed to ensure the Zoll Defibrillator is working properly:

      - The R series defibrillator performs Code Readiness tests automatically daily to verify its integrity and readiness for emergency use.
      - Daily Visual Inspection (performed once daily) Green light & ✓ mark on. (check plugged)
      - Manual Defibrillator Testing with Hands-Free Electrodes performed weekly once every Monday (check plugged and unplugged)
      - The immediate replacement of all missing, malfunctioning, expired or event related equipment and supplies.
      - Documentation of the inspection on the EMERGENCY (CRASH CART) EQUIPMENT CHECK LOG-ATTACHMENT III.

c. After an emergency cart is utilized or if the lock is missing, the ward/unit is responsible for notifying (calling) Central Services at x74207 to receive a replacement cart. Each ward/unit has the responsibility of removing the defibrillator and oxygen tank from the cart and securing them in the unit during the exchange.

2. Exchange Process:

a. Central Services
All emergency carts will returned to Central Services on an exchange basis, for complete cleaning and restocking after a code situation or upon the date of expiration. Central Services will be responsible for the following:

- Bringing a replacement cart to the ward/unit after notification.
- Obtaining the opened cart from the ward/unit and returning it to Central Services designated are for cleaning, restocking and locking. This will be recorded by Central Services on their "Emergency Cart Maintenance & Monitoring Log." These records will be maintained for three years in Central Services.
- Maintaining stocked, spare carts for immediate circulation seven adult carts and two pediatric carts.
- Placing a clearly visible expiration date on the cart. The date will be determined by the earliest date of expiration of any perishable cart content.
- Giving each emergency cart a unique number that will be recorded on the "Emergency Cart Maintenance Log" in Central Services.
- Central Services' hours of operation are 0700 to 2330 Monday through Friday and 0700 to 1530 on Saturday, Sunday and holidays. During off-hours, see Administrative Nursing Office (ANO) responsibilities below.
- If a cart has not been used by the expiration date, the ward/unit must notify (call) to order a new cart by the expiration date. When a cart is

returned, Central Services will remove all contents, thoroughly clean and replenish cart according to hospital policy. Central Services will bring all "unit ready" carts to the Pharmacy for an emergency drug box and numbered new lock. The maintenance of the cart will be documented on the "Emergency Cart Maintenance Log."

b. Pharmacy is responsible for:

- Replacing the emergency drug box in "unit ready" carts brought by Central Service staff. Applying all new locks to carts.
- Checking IV solutions on the emergency cart and noting the expiration date.

c. Nursing/Licensed Personnel is responsible for ensuring that the following equipment and supplies are transferred from the used cart to the replacement cart:

- Defibrillator – ensure that defibrillator is secured with Velcro straps and follow steps to inspect and test the defibrillator-ATTACHMENT II EMEREGNCY CART MAINTENANCE-Testing the Zoll Defibrillator/AED.
- Oxygen E Cylinder with wrench and adaptor attached.
- Perform routine preventative maintenance as previously described.
- Nursing/Licensed Personnel must remove all needles, syringes and any item with body fluids from the emergency drug box.
- Nursing returns the used drug box to the Pharmacy.

d. Administrative Nursing Office (ANO)

- When Central Services is closed, the ANO will be contacted by the ward/unit for after-hours cart exchange and will bring a replacement cart and

return the used cart to Central Services. The ANO is responsible for ensuring that the used cart is left in the designated location in the back of Central Services. The ANO is to document the exchange in the "Emergency Cart Maintenance Log."

- After hours, the ANO will notify the Pharmacist on duty to replace the drug box on the new cart. The Pharmacist is responsible for applying all new locks and checking IV solutions in the emergency carts.

References: Olive View-UCLA Medical Center Intranet-Training Resources-Zoll On-Line Tutorial & Zoll Operator's Manual (Chapters 12 &13).	
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