



**Health Services**  
LOS ANGELES COUNTY

September 29, 2017

Los Angeles County  
Board of Supervisors

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First District

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TO: Supervisor Mark Ridley-Thomas, Chairman  
Supervisor Hilda L. Solis  
Supervisor Sheila Kuehl  
Supervisor Janice Hahn  
Supervisor Kathryn Barger

FROM: Mitchell H. Katz, M.D. *Mitchell Katz*  
Director

SUBJECT: **MOBILE STROKE UNIT MUTUAL AID REPORT**

Mitchell H. Katz, M.D.  
Director

Hal F. Yee, Jr., M.D., Ph.D.  
Chief Medical Officer

Christina R. Ghaly, M.D.  
Chief Operations Officer

This report is in response to the June 20, 2017 Board Motion by Supervisors Hahn and Solis instructing the Director of Health Services and the Fire Chief to report back to the Board on how to implement a mutual aid agreement, so that the mobile stroke units can work with all ambulance companies that have contracts with the County.

The County Emergency Medical Services (EMS) Agency coordinates all pre-hospital emergency medical care within the County. As such, they are responsible for the Exclusive Operating Area (EOA) contracts with ambulance companies, regulation of ambulance companies through the County's Ambulance Ordinance 7.16, and promulgation of policies and procedures utilized by the fire departments and ambulance companies responding to 9-1-1 emergencies.

Any medical unit responding to 9-1-1 emergencies needs to be recognized by the EMS Agency and incorporated into agreements, policies and protocols. To approve and to coordinate the use of the Mobile Stroke Unit (MSU) within the EMS system, the contracts with ambulance companies have been reviewed and a mutual aid policy drafted.

The EOA contracts with the private ambulance companies includes the following language: "WORK, 3.2.1: *This exclusivity does not apply to any Federal, State, or County owned or operated Ambulance if authorized to transport by an authorized County agency, or to air ambulances if authorized to transport by an authorized County agency or by other lawful authority, all of which may be used within the Contractor's EOA to provide Emergency Ambulance Transportation Services 911 Response.*"

The above language applies to the MSU as, University of California Los Angeles (UCLA) is a State entity and its use within the County is

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approved by the EMS Agency and incorporated into policy. Therefore, an amendment to the current EOA contracts with the private ambulance companies will not be necessary.

The attached prehospital care policy, Reference No. 817 Regional Mobile Response Teams, defines the use, activation and requirements of the MSU within the system. It defines two regional resources that can be utilized by any 9-1-1 responding agency within the County if needed for the specialized need (trauma extrication and acute stroke diagnostics and treatment). The EMS Agency worked with the UCLA MSU administrative team to draft this policy and assisted with any process issues to ensure the MSU patient enrollment began in time to participate in the national research study. Reference No. 817 was approved through the committee process and the EMS Commission on September 20, 2017.

Though the EMS Agency will not need to amend the EOA ambulance agreements, the UCLA MSU team will need agreements with the individual city fire departments to address operational issues, insurance and indemnification.

## **START UP PROGRESS**

UCLA has successfully completed an agreement with the City of Santa Monica for deployment with their Fire Department and began operation on September 11, 2017. They continue working with the City of Los Angeles to finalize a written agreement defining their operations with the Fire Department. UCLA MSU, the EMS Agency and research partners have completed all necessary policies and procedures for patient enrollment and destinations.

The EMS Agency has notified all their stakeholder groups about the MSU operations and in conjunction with UCLA, is seeking other areas within the County for operations to begin. Specific areas of expansion the County's Fire District is exploring include the cities of Long Beach and Compton. In addition, County Fire is in the process of investigating an agreement with UCLA to deploy the MSU in one of their areas. We are looking forward to having this additional resource within the EMS system, the first patient enrollment and the study results.

If you have any questions, please contact me or Cathy Chidester, EMS Agency Director, at (562) 347-1604.

MKH:cc

Attachment

c: Chief Executive Office  
County Counsel  
Executive Office, Board of Supervisors  
Fire Chief

SUBJECT: **REGIONAL MOBILE RESPONSE TEAM**

**PURPOSE:** To establish a formal mechanism for providing rapid advanced emergency medical care at the scene in which a higher level of on-scene emergency medical expertise, physician field response, is requested by the on-scene prehospital care provider.

**AUTHORITY:** Health and Safety Code, Division 2.5, Section 1798. (a)

**DEFINITIONS:**

**9-1-1 Jurisdictional Provider:** the local governmental agency that has jurisdiction over a defined geographic area for the provision of prehospital emergency medical care. In general, these are cities and fire districts that have been defined in accordance with the Health and Safety Code, Division 2.5, Section 1797.201

**Exclusive Operating Area (EOA) Provider:** these are prehospital emergency medical transportation agencies/companies that have the exclusive rights to provide emergency 9-1-1 medical transportation in predefined geographic areas. These include cities and ambulance companies that have exclusive emergency transportation rights as defined by the Health and Safety Code, Division 2.5, Section 1797.201 and Section 1797.224, and referenced in the Los Angeles County EMS Plan.

**Fire Operational Area Coordinator (FOAC):** Los Angeles County Fire Department, which is contacted through its Dispatch Center.

**Hospital Emergency Response Team (HERT):** organized group of health care providers from a designated Level I Trauma Center, with Emergency Medical Services (EMS) Agency approval as a HERT provider, who are available 24 hours/day to respond and provide a higher level of on-scene surgical and medical expertise. A HERT is utilized in a situation where a life-saving procedure, such as an amputation, is required due to the inability to extricate a patient by any other means. HERT may also be utilized to assist with prolonged patient care during entrapment, including but not limited to analgesia, sedation, and difficult airway management.

**Incident Commander:** highest-ranking official of the jurisdictional agency at the scene of the incident and responsible for the overall management of the incident.

**Medical Alert Center (MAC):** serves as the control point for the VMED28 and ReddiNet® systems and the point of contact when a HERT is requested. The MAC shall contact an approved HERT provider based on the incident location.

EFFECTIVE: 12-01-92  
REVISED: 09-15-17  
SUPERSEDES: 5-15-15

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APPROVED:

  
Director, EMS Agency

  
Medical Director, EMS Agency

**Mobile Stroke Unit (MSU):** organized group of health care providers with highly specialized equipment, who are available to respond and provide a higher level on-scene stroke care. A MSU is approved by the EMS Agency to be deployed in the prehospital setting to provide rapid assessment of a suspected stroke patient utilizing a mobile computed tomography (CT) scanner able to transmit images to a remote hospital site. If indicated, the MSU may also provide rapid life-saving treatment with intravenous tissue plasminogen activator (IV tPA), hemostatic agents, blood pressure medications and other treatments.

**Physician Field Response:** situation in which a higher level of on-scene emergency medical expertise is warranted due to the nature of the emergency and requested by the on-scene prehospital care provider.

**Standard Precautions:** combine the major features of Universal Precautions (UP) and Body Substance Isolation (BSI). Standard Precautions include a group of infection prevention practices that apply to all patients, regardless of suspected or confirmed infection status, in any setting in which healthcare is delivered. These include: hand hygiene; use of gloves, gown, mask, eye protection, or face shield, depending on the anticipated exposure; and safe injection practices.

**VMED28:** The radio frequency designated as the communication system utilized by EMS providers, 9-1-1 receiving hospitals and the MAC to manage Multiple Casualty Incidents (MCI).

**POLICY:**

I. Hospital Emergency Response Team (HERT):

A. Composition of a HERT

1. The composition of the HERT, and the identification of a Team Leader, shall be in accordance with the approved HERT provider's internal policy on file with the EMS Agency.
2. The Team Leader is responsible for organizing, supervising, and accompanying members of the team to a scene where a physician field response has been requested.
3. The Team Leader shall be familiar with base hospital operations, scene hazard training, and the EMS Agency's policies, procedures, and protocols.
4. The Team Leader is responsible for retrieving the life-saving equipment and PPE and determining if augmentation is required based upon the magnitude and nature of the incident.

PPE shall include universal precautions and the following:

- a. Safety Goggles
- b. Leather Gloves
- c. Bullard ® Advent ® royal blue helmet with HERT labeled on both sides;

- d. Nomex® royal blue jumpsuit; and
- e. National Fire Protection Association (NFPA) approved safety boot with minimum six inch rise, steel toe, and steel shank.

The standard life-saving equipment and PPE referenced above shall be predetermined, preassembled, readily available, clearly labeled, and stored in a predetermined location. Based upon the magnitude and nature of the incident, the standard life-saving equipment and PPE may require augmentation.

5. The Team Leader will determine the ultimate size and composition of the team based upon the magnitude and nature of the incident.
6. The Team Leader will report to, and be under the authority of, the Incident Commander or their designee. Other members of the team will be directed by the Team Leader.

B. Activation of the HERT:

1. HERT members should be assembled and ready to respond within 20 minutes of a request with standard life-saving equipment and in appropriate level of personal protective equipment (PPE) in accordance with the HERT provider's internal policy on file with the EMS Agency. The anticipated duration of the incident should be considered in determining the need for a HERT. Before requesting a HERT, the Incident Commander should take into account that it will be a minimum of 30 minutes before a team can be on scene.
2. The Incident Commander shall contact the MAC via the VMED28. The determination of the appropriate mode of transportation of the team (ground versus air) will be mutually agreed upon.
3. MAC shall contact an approved HERT provider regarding the request. The Team Leader will organize the team and equipment in accordance with the HERT provider's internal policy, and the magnitude and nature of the incident.
4. The Team Leader shall inform the MAC once the team has been assembled and indicate the number of team members.
5. MAC will notify the Incident Commander of the ETA of the HERT if they are arriving by ground transportation. When air transport is utilized, MAC will indicate the time that the HERT is assembled with the standard life-saving equipment and prepared to leave the helipad.

C. Transportation of the HERT:

1. MAC will arrange transportation of the HERT through coordination with the Central Dispatch Office or the FOAC.

2. Upon the conclusion of the incident, HERT will contact the MAC and transportation of the team back to the originating facility will be arranged.

D. Responsibilities of a HERT:

1. Upon arrival of the HERT, the Team Leader will report directly to the on-scene Incident Commander. HERT members will, at a minimum, have visible identification that clearly identifies the individual as a health care provider (physician, nurse, etc.) and a member of the HERT.
2. Medical Control for the incident shall be in accordance with Reference No. 816, Physician at the Scene.

E. Approval Process of a HERT:

Level I Trauma Centers interested in providing a HERT must develop internal policies to comply with all requirements and submit evidence of the ability to meet all requirements of this policy to the EMS Agency for review and approval as a HERT provider.

II. Mobile Stroke Unit (MSU) Program

- A. The Stroke Medical Director shall be a physician on the hospital staff, licensed in the State of California and Board Certified in Neurology, Neurosurgery, Neuroradiology, or Emergency Medicine by the American Board of Medical Specialties

B. General Requirements, a MSU Program shall:

1. Be approved by the EMS Agency
2. Have, at minimum, one MSU that has been appropriately licensed as an emergency response vehicle (i.e. California Department of Motor Vehicle or California Highway Patrol).
3. Designate a MSU Medical Director who shall be responsible for the functions of the MSU. The MSU Medical Director shall be a physician on the hospital staff, licensed in the State of California and Board Certified in Neurology, Neurosurgery or Neuroradiology by the American Board of Medical Specialties.
4. Staff the MSU with a critical care transport nurse, emergency medical technician or paramedic and a CT technician. A stroke neurologist may also be included as part of the response team.
5. Implement a quality improvement program for program monitoring and evaluation

6. Designate a MSU Program Manager who shall be responsible for ensuring timely and accurate data collection and who works with the MSU Medical Director to develop a data collection process and a quality improvement program.
- C. The MSU Program shall develop an activation and dispatch procedure in collaboration with the 9-1-1 jurisdictional provider.
  - D. A written Agreement between an Exclusive Operating Area (EOA) Provider and the MSU Program shall be in place if the MSU will be used to transport stroke patients. The written Agreement shall address, at minimum, the following:
    1. Dispatch
    2. Interaction between staff of the MSU and the 9-1-1 Jurisdictional Provider/EOA Provider
    3. Transportation arrangements
    4. Billing
    5. Data Collection
    6. Liability
  - E. The MSU Program shall develop policies and procedures that address patient care and include the following: patient assessment and identification of patients requiring MSU services; indications for CT and procedures for transmission and reporting, indications and contraindications for tPA, and reporting of adverse events.
  - F. Approval Process of a MSU
    1. MSU Programs shall submit a letter of intent to the EMS Agency outlining the following:
      - a. Qualifications of the composition of MSU program
      - b. Proposed response area
      - c. Deployment and dispatch plan for integration with the 9-1-1 jurisdictional provider
      - d. Data collection and quality improvement process
    2. If the MSU will be used to transport stroke patients, submit a copy of the written Agreement with the 9-1-1 Jurisdictional Provider/EOA Provider.
    3. The EMS Agency will review and verify the submitted information. If the submitted information is satisfactory, the EMS Agency will approve the MSU program.

CROSS REFERENCES:

Prehospital Care Manual:

Reference No. 201, **Medical Management of Prehospital Care**

Reference No. 502, **Patient Destination**

Reference No. 503, **Guidelines for Hospitals Requesting Diversion of ALS Units**

Reference No. 504, **Trauma Patient Destination**

Reference No. 506, **Trauma Triage**

Reference No. 510, **Pediatric Patient Destination**

Reference No. 519, **Management of Multiple Casualty Incidents**

Reference No. 808, **Base Hospital Contact and Transport Criteria**

Reference No. 816, **Physician at the Scene**