DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

PARAMEDIC, MICN

SUBJECT:  CARDIAC ARREST (NON-TRAUMATIC)
PATIENT DESTINATION

REFERENCE NO. 516

PURPOSE:  To ensure that 9-1-1 patients in cardiopulmonary arrest (non-traumatic) are transported to the most appropriate facility that is staffed, equipped, and prepared to perform resuscitative measures.

This policy does not apply to traumatic arrest or to decompression emergencies. For traumatic arrest, refer to Ref. No. 506, Trauma Triage. For decompression emergencies, refer to Ref. No. 518, Decompression Emergencies/Patient Destination.

AUTHORITY:  Health & Safety Code, Division 2.5, Sections, 1798

DEFINITIONS:

Cardiac Etiology:  Sudden cardiac death from ischemic heart disease, congenital heart disease, channelopathy, or dysrhythmia. One presumes cardiac etiology when it is a sudden event without evidence of alternate causes (e.g. trauma, terminal illness, overdose, sepsis, drowning, or respiratory arrest).

Return of Spontaneous Circulation (ROSC):  The restoration of a spontaneous perfusing rhythm. Signs of ROSC include: palpable pulse, breathing (more than an occasional gasp), a measurable blood pressure and/or a sudden rise in capnography to a normal/high reading.

ST-Elevation Myocardial Infarction (STEMI):  An acute myocardial infarction that generates ST-segment elevation on the prehospital 12-lead electrocardiogram (ECG).

STEMI Receiving Center (SRC):  An acute care facility licensed for a cardiac catheterization laboratory and cardiovascular surgery by the California Department of Public Health and designated by the Los Angeles County EMS Agency as a SRC.

PRINCIPLE:

1.  In all cases, the health and well-being of the patient is the overriding consideration in determining patient destination. Factors to be considered include: clinical presentation, severity and stability of the patient’s condition; current status of the SRC; anticipation of transport time; and request by the patient, family, guardian or physician.

2.  Optimal post cardiac arrest treatment may include an interventional cardiac procedure in a significant percentage of patients.

3.  Resuscitation efforts for patients greater than 14 years of age who are in non-traumatic cardiopulmonary arrest should take place in the field until ROSC is achieved or the patient is pronounced. Transport of patients without ROSC is discouraged with the
exception of patients who qualify for ECMO transported on a mechanical compression device by an approved provider agency.

4. For cardiac arrest in patients age 14 and younger, refer to Ref. No. 510, Pediatric Patient Destination.

5. Patients with refractory ventricular fibrillation (3 or more shocks) or EMS witnessed arrests of presumed cardiac etiology may benefit from transport to the SRC for consideration of percutaneous coronary intervention despite prolonged resuscitation.

6. Patients in cardiac arrest with hanging or submersion mechanisms are asphyxial in the large majority of cases and should be considered a medical cardiac arrest for field management and transport destination unless there is strong evidence of cervical spine injury.

POLICY:

I. Establish base hospital contact for medical direction for all cardiac arrest patients who do not meet criteria for determination of death per Ref. No. 814, Determination/Pronouncement of Death in the Field.

II. For patients with STEMI and ROSC, direct contact with the receiving SRC shall be established for patient notification and/or to discuss cath lab activation criteria.

III. Patients with non-traumatic cardiac arrest shall be transported to the most accessible open SRC if ground transport is 30 minutes or less regardless of service area boundaries including:

A. Patients with sustained ROSC

B. Patients with ROSC who re-arrest en route

C. Patients with persistent cardiac arrest for whom the Base Physician determines transport is required, because futility is not met despite lack of ROSC with on scene resuscitation

D. Patients who have progressed into cardiopulmonary arrest while en route and had a pre-arrest STEMI 12-lead ECG.

IV. Cardiac arrest patients who meet SRC transportation criteria should be transported to the most accessible SRC regardless of ED Diversion status.

V. If ground transport time to a SRC is greater than 30 minutes, the patient shall be transported to the most accessible receiving facility.

VI. If the closest SRC has requested SRC Diversion (as per Ref. No. 503), cardiac arrest patients who meet SRC transportation criteria should be transported to the next most accessible open SRC if ground transport time is less than 30 minutes.

CROSS REFERENCE:
Prehospital Care Manual:

- Ref. No. 501, Hospital Directory
- Ref. No. 502, Patient Destination
- Ref. No. 503, Guidelines for Hospitals Requesting Diversion of ALS Units
- Ref. No. 506, Trauma Triage
- Ref. No. 510, Pediatric Patient Destination
- Ref. No. 517, Private Provider Agency Transport/Response Guidelines
- Ref. No. 518, Decompression Emergencies/Patient Destination
- Ref. No. 814, Determination/Pronouncement of Death in the Field
- Ref. No. 1210, Cardiac Arrest
- Ref. No. 1303, Algorithm for Cath Lab Activation
- Ref. No. 1308, Cardiac Monitoring/12-Lead ECG