COUNTY OF LOS ANGELES
EMERGENCY MEDICAL SERVICES COMMISSION

10100 Pioneer Boulevard, Suite 200, Santa Fe Springs, CA 90670
(562) 378-1610 FAX (562) 941-5835
http://ems.dhs.lacounty.gov

DATE: May 21, 2025
TIME: 1:00 – 3:00 PM
LOCATION: 10100 Pioneer Boulevard, First Floor
Cathy Chidester Conference Room 128
Santa Fe Springs, CA 90670

The Commission meetings are open to the public. You may address the Commission on any agenda item before or during consideration of that item, and on other items of interest which are not on the agenda, but which are within the subject matter jurisdiction of the Commission. Public comment is limited to three (3) minutes and may be extended by the Commission Chair as time permits.

NOTE: Please *sign in* if you would like to address the Commission.

AGENDA

1. CALL TO ORDER – Commissioner Diego Caivano, Chair

2. INTRODUCTIONS/ANNOUNCEMENTS/PRESENTATIONS

2.1 Cardiac survivor recognition day at LA General Medical Center

3. CONSENT AGENDA: *Commissioners/Public may request that an item be held for discussion. All matters are approved by one motion unless held.*

3.1 **Minutes**
- 3.1.1 March 12, 2025

3.2 **Committee Reports**
- 3.2.1 Base Hospital Advisory Committee – April 9, 2025
- 3.2.2 Provider Agency Advisory Committee – April 16, 2025

3.3 **Policies**
- 3.3.1 Reference No. 201, Medical Management of Prehospital Care
- 3.3.2 Reference No. 321, Extracorporeal Cardiopulmonary Resuscitation (ECPR) Receiving Center Standards
- 3.3.3 Reference No. 411, 9-1-1 Provider Agency Medical Director
- 3.3.4 Reference No. 503, Guidelines for Hospitals Requesting Diversion of ALS/BLS Patients
- 3.3.5 Reference No. 503.2, Diversion Request Quick Reference Guide
- 3.3.6 Reference No. 513, ST-Elevation Myocardial Infarction (STEMI) Patient Destination
- 3.3.7 Reference No. 516, Cardiac Arrest (Non-Traumatic) Patient Destination
- 3.3.8 Reference No. 814, Determination/Pronouncement of Death in the Field
- 3.3.9 Reference No. 830, EMS Pilot and Scientific Studies
- 3.3.10 Reference No. 834, Patient Refusal of Treatment/Transport and Treat and Release At Scene

3.3.11 Reference No. 838, Application of Patient Restraints
3.3.12 Reference No. 1318, Medical Control Guideline: ECPR Patient Algorithm

END OF CONSENT AGENDA

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4. BUSINESS

Business (Old)

4.1 Field Evaluation of Suicidal Ideation and Behavior
4.2 The Public Works Alliance EMS Corps.
4.3 Ambulance Patient Offload Time (APOT)
4.4 Cardiac Arrest Taskforce
4.5 Interfacility Transfer Taskforce

5. Business (New)

5.1 AB 1328- Dispatch

6. LEGISLATION

7. DIRECTORS' REPORTS

7.1 Richard Tadeo, EMS Agency Director/EMSC Executive Director

Correspondence

7.1.1 (03/06/25) Los Angeles Development & Rapid Operationalization of Prehospital Blood (LA-DROP) Pilot Program Approval
7.1.2 (03/17/25) Los Angeles Development & Rapid Operationalization of Prehospital Blood (LA-DROP) Pilot
7.1.3 (04/01/25) Permanent Removal of Service Area Boundaries

7.2 Nichole Bosson, MD, EMS Medical Director

8. COMMISSIONERS' COMMENTS / REQUESTS

9. ADJOURNMENT

To the meeting of July 16, 2025

COUNTY OF LOS ANGELES
EMERGENCY MEDICAL SERVICES COMMISSION

10100 Pioneer Boulevard, Suite 200, Santa Fe Springs, CA 90670
(562) 378-1610 FAX (562) 941-5835
http://ems.dhs.lacounty.gov/

MINUTES
March 12, 2025

☒ Diego Caivano, M.D.	LACo Medical Association	Richard Tadeo	Executive Director
☐ *Jason Cervantes	CA Professional Firefighters	Vanessa Gonzalez	Commission Liaison
☒ Erick H. Cheung, M.D.	So. CA Psychiatric Society	Christine Clare	EMS Staff
☒ Paul Camacho, Chief	LACo Police Chiefs' Assn.	Nichole Bosson, MD	EMS Staff
☒ Tarina Kang, M.D.	Hospital Assn. of So. CA	Christine Clare	EMS Staff
☐ *Carol Kim	Public Member, 1st District	Jacqueline Rifenburg	EMS Staff
☒ Kristin Kolenda, Captain	Peace Officers Association	Denise Whitfield, MD	EMS Staff
☐ *Lydia Lam, M.D.	American College of Surgeons	HanNa Kang	EMS Staff
☒ Kenneth Liebman	LACo Ambulance Association	Samuel Calderon	EMS Staff
☐ *James Lott, PsyD, MBA	Public Member, 2nd District	Michael Kim, MD	EMS Staff
☒ Carol Meyer, RN	Public Member, 4th District	Jon Warren, MD	EMS Staff
☒ Kenneth Powell	LA Area Fire Chiefs' Assn.	Jake Toy, MD	EMS Staff
☒ Connie Richey, RN	Public Member 3rd District	Sara Rasnake	EMS Staff
☐ *Brian Saeki	League of CA Cities/LA Co	Priscilla Ross	EMS Staff
☒ Stephen G. Sanko, MD	American Heart Association	Lily Choi	EMS Staff
☒ Carole A, Snyder, RN	Emergency Nurses Assn.	Mariana Munatones	EMS Staff
☐ *Saran Tucker	So. CA Public Health Assn.	David Wells	EMS Staff
☐ *Atilla Uner, M.D., MPH	CAL-ACEP		
☐ *Gary Washburn	Public Member, 5th District		

GUESTS

Nicole Reid, LACOFD
Samantha Verga-Gates, LBM
Michael Stone, USC EMS Fellow

(*) = Absent

1. CALL TO ORDER

The Emergency Medical Services (EMS) Commission (EMSC) meeting was held at the EMS Agency at 10100 Pioneer Boulevard, First Floor, Cathy Chidester Conference Room 128, Santa Fe Springs, CA 90670. Vice Chair Dr. Stephen Sanko provided general instructions and called the meeting to order at 1:03 p.m. There was a quorum of 11 commissioners present.

2. INTRODUCTIONS/ANNOUNCEMENTS/PRESENTATIONS

2.1 Richard Tadeo, EMS Agency Director/EMSC Executive Director announced that the 2025 Emergency Medical Services Administrators' Association of California (EMSAAC) annual conference will be May 28 – 29, 2025 in San Diego, CA with a pre-conference on disaster response on May 27th.

2.2 The LA County EMS System Report
Director Tadeo presented the EMS System Report to the Commissioners.

3. Consent Agenda – *All matters approved by one motion unless held.*
Chair Caivano called for approval of the Consent Agenda and opened the floor for discussion.

3.1 **Minutes**
3.1.1 January 15, 2025

3.2 **Committee Reports**
3.2.1 Base Hospital Advisory Committee – February 5, 2025
3.2.2 Provider Agency Advisory Committee – February 2, 2025

3.3 **Policies**
3.3.1 Reference No. 215, EMS and Law Enforcement Co-Response Committee
Dr. Nichole Bosson, EMS Medical Director, gave a background on the EMS and Law Enforcement Co-Response Committee (ELCoR). The committee was set-up two years ago in response to challenges that were happening on-scene between EMS and law enforcements co-response to agitated persons. The Committee implemented a medical control guideline, and an EMS Update training video that included Commissioners Paul Camacho and Kenneth Powell to assist with guidance. The collaboration was a great opportunity to have an open discussion between EMS and law enforcement, and they felt that they should continue to meet as a standing committee. Reference No. 215 codifies the ELCoR committee into a policy. The goal of this committee is to foster ideas, discussion and collaborations to improve field care. This policy outlines the committee's activities to support this endeavor, the frequency of the meetings, and committee membership which includes leadership and practicing clinicians for both EMS and law enforcement and representatives of many of our key agencies. Currently, Dr. Shira Schlesinger is leading a workgroup on pediatric critical emergencies which will include training and guidance for law enforcement to assist in the resuscitation of critical pediatrics.
3.3.2 Reference No. 1116, Hospital – Adopt-A-Shelter Program (For Deletion)
3.3.3 Reference No. 1124, Disaster Preparedness Exercise/Drills
3.3.4 Reference No. 1130, Trauma Center Emergency Preparedness

Motion/Second by Commissioners Snyder/Meyer to approve Consent Agenda was carried unanimously.

END OF CONSENT AGENDA

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4. BUSINESS

Business (Old)

4.1 Field Evaluation of Suicidal Ideation and Behavior
The Medical Control Guidelines for suicide screening were approved at the previous commission meeting. The committee has created education related to screening of suicidal risks and interaction with law enforcement that will be included in EMS Update 2025. It includes two case scenarios based on real cases and there is also an example they can use of the Columbia Suicide Severity Rating (C-SSRS) screening to estimate risks with guidance on documentation. EMS Update will be available in April for completion in June.

4.2 The Public Works Alliance EMS Corps

Jacqueline Rifenburg, EMS Agency Assistant Director, gave an update on the EMS Corps Whittier site. They have a full cohort, and they will be starting in the next few months. The Compton site is currently working on getting an MOU signed.

4.3 Cardiac Arrest Taskforce

There has been discussion of initiating this task force to help LA County provide leadership amongst other counties on how to pursue achieving process and patient centered outcomes that have been recommended by the American Heart Association's 2030 project. These include improving bystander CPR, AED accessibility, and improvement of neuro intact survival for out of hospital and in-hospital cardiac arrest. One of the strategies of this task force is to ask the provider agencies and hospital systems to develop their own proposals for how they plan to improve survival and improve outcomes. Dr. Stephen Sanko, EMS Commission Co-Chair, along with Adena Tessler from the Hospital Association of Southern California (HASC), created a slideshow for the executive committee to discuss what some of the asks will be of their hospitals. Dr. Sanko presented the slideshow to the commissioners.

The taskforce will meet monthly with representatives from the EMS Commission as well as additional stake holders and representatives from EMS Agency committees. Groups of interest to present to the workgroup during the meetings are: policy decision makers in high-risk areas, community health clinics, cardiology survivors, media representatives, public health, law enforcement, dispatch centers, and various other groups. If anyone is interested in being a part of the taskforce, please contact Dr. Sanko.

4.4 Interfacility Transfer Taskforce

Christine Clare, EMS Agency Nursing Director, discussed the Interfacility Transfer Taskforce. They met in February and one of the key discussion points was a request that was brought up by the physicians regarding the possibility of creating a centralized database for all 9-1-1 IFT's. They discussed some data elements and logistics that would need to be completed and are working on a sample form that would be requested by individual providers to complete and be submitted to the EMS Agency who would be able to evaluate the impact it might have on 9-1-1 services and identify if its certain facilities, times of day, or types of patients. The next meeting is scheduled for March 24, 2025.

Another discussion item is funding, which is the root cause of critical care transport. The taskforce is tasked with addressing 9-1-1 activation for ER transfers that do not belong within the STEMI or trauma re-triage categories. The EMS agency is going to continue meeting with hospital leadership and hospital systems where we find those ER transfers utilizing the 9-1-1 system inappropriately for transport.

Dr. Sanko pointed out two items that he hopes are explored through this taskforce; first, the dissemination of policy amongst ER's and ER staff to improve understanding of what the policy is and what the guidelines are. The second item is, has the possibility of EMS physician oversight in real time been brought up in the group? When LA County Fire physicians are involved, often they can be helpful in determining appropriateness and destinations for interfacility transfers. Ms. Clare responded that real time physician involvement from the fire department to the hospitals has been discussed, unfortunately it's not always available, so it becomes a challenge. Regarding dissemination of the polices and trainings, there was a creation of two different checklist, one for STEMI and one for Trauma that was sent to all the hospitals through HASC, unfortunately sometimes it doesn't always get to the appropriate person and that's continual issue being worked on. We also now have contracts with every 9-1-1 receiving hospital including non-

specialty care centers, and part of the contract is to have transfer agreements for higher level of care and transportation arrangements and protocols. This gives the agency ability to go into the community hospitals to request a corrective action plan or improvement plan for things that may not be up to par.

Commissioner Carol Meyer asked if the policy regarding requirements for Nurse Staffed ambulance has been looked over by the EMS Agency and whether there can be some flexibility to ensure nurse staffed could be a little more reasonable. Director Tadeo responded that we are in the process of reviewing the policy, and those standards were set by a committee of subject matter experts that were in the nurse staff ambulance business and once we have reviewed and made recommendations to the policy, the EMS Agency will reconvene the workgroup and discuss the revisions.

In terms of reimbursement, last year when we did a 20% across the board increase in the maximum rates for ambulance reimbursement, we did remove the 9-1-1 language so that the ER-to-ER transfers could be billed at that emergency rate.

4.5 Alternate Destination

Ms. Clare gave an overview of the Alternate Destination Volume. The data starts in 2020 which is when we started designating alternate destinations and goes through 2024. One of the biggest differences is a change in volume. In 2024 we started comparing what EMS documented as where the patient was transported to with what we were given by the alternate destinations and verifying that the numbers matched. Our plan for transport to alternate destination was approved by EMSA for implementation system-wide last year. Since then, we have had three fire departments, Santa Monica, Culver City and Los Angeles County Fire, that have been approved to train their paramedics to do the assessment and take their patients directly to an alternate destination.

In 2023, the David L. Murphy Sobering Center suspended their services because they wanted to focus on becoming a fentanyl sobering center, instead of an alcohol sobering center and EMS cannot transport fentanyl overdoses to an alternate destination. They have reached out to us, and they are looking at reconverting some of those beds to alcohol sobering. MLK Behavioral Health has also reached out to establish a sobering center on their site; they are in the process of applying. We have also reached out to Long Beach Fire Department because the psychiatric urgent care center in Long Beach's volume is very low. They have never had an alternate destination program, and they are interested in participating and are currently working through the process.

5. Business (New)

5.1 2025 EMS Commission Goals and Objectives

One of the four goals for the Commission is psych and behavioral health and the last recommendation has been completed by the taskforce. Dr. Cheung thinks that if we were to push this further, the pursuit of facilitating the process of alternate destination through advocacy is very important. He motioned we keep it as an objective and maintain it with the goal to investigate what the avenue will be to appropriately advocate for reimbursement for alternate destinations.

Motion/Second by Commissioners Cheung/Snyder to keep the AD Hoc Committee on the Prehospital Care of Mental Health and Substance Abuse Emergencies as a 2025 goal was carried unanimously.

Director Tadeo reported that the commission has met the objectives regarding the Ambulance Patient Offload Delays (APOD). We have an APOD policy, and we recently amended that policy to include workflow in documenting facility equipment time. We will continue to keep it as a goal

and will keep reporting the data to the commission for another year.
We will also keep the Interfacility Transport Delays (IFT) and Cardiac Arrest Workgroup as 2025 goals since they are ongoing.

6. LEGISLATION

Director Tadeo reported on the following legislation:

Over 30% of the legislators of the state of California are new. The deadline for submission of bills was February 21st and there is currently nothing new that is impacting EMS.
Chapter 6 Regulations - The specialty care programs: STEMI, Stroke, EMS for Children and Trauma were all separate chapters, and they have been combined as Chapter 6. The regulations were sent out a few weeks ago for public comment and the deadline for submission to EMSA is April 3, 2025.
Regarding the new federal administration and funding, it has not officially been announced but we are expecting about a billion-dollar cut in Medi-Cal and it would primarily impact our programs for our undocumented population.
HPP funding has been approved through congress for the next few years.

DIRECTORS' REPORT

7.1 Richard Tadeo, EMS Agency Director, EMSC Executive Director

Director Tadeo reported on the following:

Health Data Exchange – There was a kick-off meeting with the trauma centers and base hospitals last week. The implementation phase is three years, and we are working to be able to sustain funding for the entire county on yearly subscription. If we have all 69 hospitals participate it would be about $1.8 million on an annual basis.

Measure B Advisory Board (MBAB) – MBAB will be meeting this year to rank project proposals for the unallocated portion of the Measure B funds. Every year there is a surplus and the Board of Supervisors formed the MBAB to review and accept one-time funding proposals. Jacqui Rifenburg will start accepting projects April 7, 2025 – June 26, 2025. The MBAB group will convene in September to rank and determine which projects will be funded. We are currently waiting for finance to let us know how much funding we will have available.

Sidewalk CPR – We are seeking proclamation from the Board to make the first week of June CPR acknowledgement week.

RAPID LA County Medic Mobile App is published online and available for download.

Correspondence

7.1.1 (01/16/25) Dextrose 10% (250 ml) Solution – Shortage Mitigation
7.1.2 (02/03/25) Countywide Sidewalk Cardiac Resuscitation Week
7.1.3 (02/04/25) RAPID LA County Medic Mobile Application
7.1.4 (02/20/25) Ref No. 505, Ambulance Patient Offload Time (APOT)
7.1.5 (02/20/25) Rescission of all Ambulance Licensing Waivers and Exemptions Effective Immediately

7.2 Nichole Bosson, MD, EMS Medical Director

Dr. Bosson reported on the following:

Pedi-Part and Pedi-Dose are ongoing with no major updates. We will be transitioning to

the new dosage schedule for Pedidose on July 1st. We will also be doing reinforcement training on Pedi-Part at EMS Update.

LA Drop is our blood transfusion pilot. It is a partnership between Los Angeles County Fire Department, Compton Fire Department, Harbor-UCLA Medical Center, the EMS Agency and the San Diego Blood Bank to implement prehospital blood transfusion on ALS units in LA County. This will go live on April 1, 2025. A memo will go out to all receiving hospitals next week with more information including the protocol our paramedics will be operating under and a FAQ document.

We are moving to an ECPR* regional system after the success of the pilot, and we are now currently underway with designating the ECPR centers. Essentially all hospitals that are designated ECPR centers will go live July 1st to coincide with the training of our system, which will be included in EMS Update.

Dr. Shira Schlesinger reported that EMS Update will go out April 1st with Train-the-Trainer sessions on March 24 and 26. A lot of work has been done with our largest departments that are using Target Solutions or Vector Solutions rather than APS, to determine how this can be released in a way that is most accessible on their platform. We have been partnering with the UCLA Center for Prehospital Care and Ronald Reagan UCLA to develop two educational modules around ECMO, how is it used in general, how it is used for ECPR, and how it impacts the field which will augment our EMS Update. These educational modules provide a more foundational understanding of the role of ECMO and how it is evolving in use in hospital care as well as out of hospital care.

* ECPR – ECMO Cardiopulmonary Resuscitation; ECMO – extracorporeal membrane oxygenation

7. COMMISSIONERS' COMMENTS / REQUESTS

8. ADJOURNMENT:
Adjournment by Chair Caivano at 2:53 p.m. to the meeting of Wednesday, May 21, 2025.

Next Meeting: Wednesday, May 21, 2025, 1:00-3:00 p.m.
Emergency Medical Services Agency
10100 Pioneer Boulevard, First Floor
Cathy Chidester Hearing Room 128
Santa Fe Springs, CA 90670

Recorded by:
Vanessa Gonzalez
Management Secretary III

Lobbyist Registration: Any person or entity who seeks support or endorsement from the EMS Commission on official action must certify that they are familiar with the requirements of Ordinance No. 93-0031. Persons not in compliance with the requirements of the Ordinance shall be denied the right to address the Commission for such period of time as the non-compliance exists.

County of Los Angeles • Department of Health Services
Emergency Medical Services Agency

BASE HOSPITAL ADVISORY COMMITTEE MINUTES

April 9, 2025

	REPRESENTATIVES		EMS AGENCY STAFF
☑	Tariana Kang, MD, Chair	EMS Commission	Nichole Bosson, MD
☐	Lydia Lam, MD, Vice Chair	EMS Commission	Denise Whitfield, MD
☐	Atilla Under, MD, MPH	EMS Commission	Jake Toy, MD
☐	Connie Richey, RN	EMS Commission	Michael Kim, MD
☐	Saran Tucker, PhD, MPH	EMS Commission	Bijan Arab
☐	Carol Synder, RN	EMS Commission	Mark Ferguson
☐	Erick Cheung, MD	EMS Commission	Chris Clare
☐	Brian Saeki	EMS Commission	Jacqueline Rifenburg
☐	Carol Kim	EMS Commission	Christine Zaiser
☑	Rachel Caffey	Northern Region	Sara Rasnake
☐	Jessica Strange	Northern Region	Sam Calderon
☑	Michael Wombold	Northern Region, Alternate	Jon Warren
☑	Samantha Verga-Gates	Southern Region	Hannah Kang
☐	Laurie Donegan	Southern Region	Lorrie Perez
☑	Shelly Trites	Southern Region	Gerard Waworundeng
☑	Christine Farnham	Southern Region, Alternate	Priscilla Romero
☑	Ryan Burgess	Western Region, Alternate	Laura Leyman
☑	Travis Fisher	Western Region	Ami Boonjaluksa
☑	Lauren Spina	Western Region	Gary Watson
☑	Susana Sanchez	Western Region	Paula Cho
☑	Kate Bard	Western Region	Natalie Greco
☑	Laurie Sepke	Eastern Region	David Wells
☑	Alina Candal	Eastern Region	
☑	Jenny Van Slyke	Eastern Region, Alternate	
☑	Lila Mier	County Region	
☑	Emerson Martell	County Region	
☑	Antoinette Salas	County Region	GUESTS
☑	Yvonne Elizarraraz	County Region	Kelsey Wilhem, MD
☑	Gabriel Campion, MD	Base Hospital Medical Director	Shane Cook, LACoFD
☑	Salvador Rios, MD	Base Hospital Medical Director, Alternate	Clayton Kazan, MD
☑	Adam Brown	Provider Agency Advisory Committee	Sherly Gradney, LACoFD
☑	Jennifer Nulty	Prov. Agency Advisor Committee, Alternate	Taylor Hill (SJS)
☐	Elizabeth Charter	PedAC Representative	
☐	Desiree Noel	PedAC Representative, Alternate	
☐	John Foster	MICN Representative	
☐	Vacant	MICN Representative, Alternate	

	PREHOSPITAL CARE COORDINATORS		
☑	Melissia Turpin (SMM)	☐	Allison Bozigian (HMN)
☑	Mary Jane Evangelista (QVH)	☑	Brandon Koulabouth (AMH)
☑	Kelly Bui (SFM)	☐	Annette Mason (AVH)

1. **CALL TO ORDER:** The meeting was called to order at 1:00 p.m. by EMS Commissioner Chair, Tarina Kang, MD.

2. **INTRODUCTIONS/ANNOUNCEMENTS:**

2.1 Brief round-the-room introductions were held, followed by announcement of new Prehospital Care Coordinators, Mary Jane Evangelista (QVH), and Kelly Bui (SFM).

2.2 EMSAAC 2025 Conference Save the Date Flyer for May 28th– 29th, was provided in the packet. There is a pre-conference on "Disaster Management" scheduled for May 27th, 2025.

2.3 The Joint Educational Session will focus on Pediatric Cardiac Arrest and is scheduled for June 3rd, 2025, from 11:45 a.m.-1:00 p.m. (Flyer and meeting details provided).

3. **APPROVAL OF MINUTES**

3.1 The meeting minutes for February 7, 2025, were approved as presented.

M/S/C (Wombold/Sepke)

4. **OLD BUSINESS: None**

5. **NEW BUSINESS**

Policies for Discussion: Action Required

5.1 Ref. No. 814, Determination/Pronouncement of Death in the Field

Approved as presented, M/S/C (Campion/Brown)

6. **Policies for Discussion: No Action**

6.1 Ref. No. 1309, Color Code Drug Doses
6.2 Ref. No. 526, Behavioral/Psychiatric Crisis Patient Destination
6.3 Ref. No. 526.1, Medical Clearance Criteria Screening Tool for Psychiatric Urgent Care Centers (PUCC)
6.4 Ref. No. 838, Application of Patient Restraints
6.5 Ref. No. 1200.2, Base Contact Requirements
6.6 Ref. No. 1200.3, Provider Impressions
6.7 Ref. No. 1200.4. BLS Upgrade to ALS Assessment
6.8 Ref. No. 1209, Behavioral/Psychiatric Crisis

Recommendation: 'Special Consideration' to incorporate capnography monitoring for patients who are given sedation

6.9 Ref. No. 1307, Care of the Patient with Agitated Delirium
6.10 Ref. No. 1307.3, Common Etiologies of Agitation
6.11 Ref. No. 1317.25, Midazolam
6.12 Ref. No. 1373, Treatment Protocol Quality Improvement Fallout Data Dictionary
6.13 Ref. No. 644, Base Hospital Documentation Manual & Data Dictionary

Review: the 'Drug/Defib' and 'PTBC' fields and provide clear instructions for documentation of 'Field Whole Blood' and 'Interfacility Whole Blood'

6.13.1 MCI Documentation Manual

6.14 Ref. No. Summary of Changes 2025

Information Policies: No Action Required

6.15 Ref. No. 1240-P, Hazmat

7. REPORTS & UPDATES:

7.1 Sidewalk CPR

Sidewalk CPR is scheduled for Monday, June 2, 2025, at Grand Park in downtown LA from 10:00 a.m. to 12:00 p.m. The event will be introduced by Dr. Bosson and will kick off with a press conference featuring speakers from LA County Fire, LA City Fire, American Heart Association (AHA), a representative from the LA County Board of Supervisors, and a cardiac arrest survivor sharing their story. Participants will receive hands-only CPR and AED training.

7.2 EMS Update 2025

EMS Update has been released and must be completed by June 30, 2025. There will be 3.5 hours of CE given after completion. There are supplementary material folders and training videos that are available to help support your in-person training of EMS Update topics. Feedback regarding EMS Update 2025 is welcomed as well as suggestions for next year EMS Update 2026 training.

7.3 EmergiPress

The next edition will be 'HERT' (Hospital Emergency Response Team). The film provides answers to when to activate the HERT and an understanding of their resources. Everyone is encouraged to watch the video by January 2026, and CE hours are available.

7.4 ITAC Update (Tabled)

7.5 ELCoR Task Force

The committee has completed its first project: Law Enforcement Co-Response to Agitated Persons, presented in EMS Update 2025. The committee meets on a quarterly basis to address issues that intersect with law enforcement operations. The current focus areas are developing education and resources for law enforcement on pediatric critical emergencies and other opportunities, such as the use of AED for adult cardiac arrest cases

7.6 Research Initiatives & Pilot Studies

7.6.1 Prehospital Blood Transfusion Pilot – LA DROP

The pilot program launched on April 1, 2025, in collaboration with three other counties across California. Information and supporting materials for the LA Drop pilot are available on the EMS website under *Emergipress* and "Updates from the Medical Director" tab. Provider agencies that are currently live are Compton Fire and County Fire Department squads 21,161,158. County Fire is scheduled to expand in two weeks to include stations 171, 172, 173, 14, 36,116,110, and 41.

7.6.2 Thorasite Pilot

Dr Whitfield presented findings from the Thorasite pilot study, which evaluated the use of the Thorasite device for lateral needle thoracostomy. The results were favorable with no reported adverse events or anatomical misplacements, indicating that the device can be used safely and effectively in the field. It will be added as optional inventory for ALS providers.

7.7 PediDOSE Trial

Beginning July 1, 2025, PediDOSE will transition to include age-based dosing of midazolam for patients aged 12 to 16 months. Continue to operate under the current protocol until July 1, 2025. The EMS Agency appreciates your participation and collaboration and look forward to the successful completion of the study and the insights it will provide.

7.8 Pedi-PART

The base screen submission has been helpful to identify potential patients ensuring that everyone is enrolled. To date,190 patients have been enrolled in the study. The primary challenge has been adherence to the study arm, specifically following assigned airway management based on odd and even days.

7.9 California Office of Traffic Safety (OTS) Grants Projects

7.9.1 RAPID LA County Medic Mobile Application

The Mobile Protocol Application has been released and is now available for use. Training on its utilization is provided in EMS Update. A video resource on how to use the application is now posted on the EMS website, along with the links to download the application.

7.9.2 Trauma Dashboards/Curriculum

The EMS Agency has a contract with ESO to operationalize live dashboards, with the goal of completing this initiative by October 1st. The objective is to have the real-time dashboards that reflect the injuries encountered in the field, the care provided and patient outcomes from the trauma centers.

7.10 Health Data Exchange

A kickoff meeting was held last month with ESO and the participating trauma and base hospitals to provide an overview of the Health Data Exchange (HDE) initiative. Meetings with the individual facilities will be scheduled over the next few months, and the EMS Agency will continue to provide regular updates. Glendale Adventist is expected to be the first hospital to go live with the system.

8. OPEN DISCUSSION

- An issue has come up regarding how to document when a patient cannot be fully assessed or may or may not have capacity and is left on scene. A possible solution is the 'Released Following Protocol Guidelines' which is currently in NEMSIS and can be easily implemented. The plan is to bring it back at the next meeting with more clear delineations of when this option would be recommended.

- The EMS Agency has been invited to participate in a program aimed at treating patients with Buprenorphine for the treatment of opioid use disorder. The challenge is ensuring a continuum of care at the hospital; however, it was discovered that most hospitals have a CA Bridge program in place, which offers ongoing services. This presents an opportunity to implement the EMS Bridge program in LA County and the EMS Agency will continue to provide updates as more details become available.

9. **ADJOURNMENT:** The meeting was adjourned at 3:00 p.m.

   NEXT MEETING: June 11, 2025

   ACTION: Meeting notification, agenda, and minutes will be distributed electronically before the next meeting.

   ACCOUNTABILITY: Laura Leyman

EMERGENCY MEDICAL SERVICES COMMISSION
PROVIDER AGENCY ADVISORY COMMITTEE

MINUTES

Wednesday - April 16, 2025

MEMBERSHIP / ATTENDANCE

MEMBERS IN ATTENDANCE	ORGANIZATION
X Carol Meyer, Chair	EMSC, Commissioner
X Kenneth Powell, Vice-Chair	EMSC, Commissioner
Jason Cervantes	EMSC, Commissioner
James Lott, PsyD, MBA	EMSC, Commissioner
Gary Washburn	EMSC, Commissioner
Kristin Kolenda	EMSC, Commissioner
Ken Lieberman	EMSC, Commissioner
Paul Camacho	EMSC, Commissioner
X Sean Stokes	Area A *(Rep to Medical Council)*
Patrick Nulty	Area A, Alternate
X Keith Harter	Area B
X Clayton Kazan, MD	Area B, Alternate
Vacant	Area C
Jeffrey Tsay	Area C, Alternate
Ryan Jorgensen	Area E
Geoffrey Dayne	Area E, Alternate
X Joel Davis	Area F
Andrew Reno	Area F, Alternate
X Adam Brown	Area G *(Rep to BHAC)*
X Stefan Viera	Area G, Alternate
Matthew Conroy	Area H
Tim Wuerfel	Area H, Alternate
X David Hahn	Area H, Alternate
X Julian Hernandez	Employed Paramedic Coordinator
Tisha Hamilton	Employed Paramedic Coordinator, Alt
Jenny Van Slyke	Prehospital Care Coordinator
X Melissia Turpin	Prehospital Care Coordinator, Alternate
X Bryan Sua	Public Sector Paramedic Coordinator
Drew Pryor	Public Sector Paramedic Coordinator, Alt
Maurice Guillen	Private Sector Paramedic
Scott Buck	Private Sector Paramedic, Alternate
X Tabitha Cheng, MD	Provider Agency Medical Director
X Tiffany Abramson, MD	Provider Agency Medical Director, Alt
Robert Ower	Private Sector Nurse Staffed Amb Program
Jonathan Lopez	Private Sector Nurse Staffed Amb Program,
Scott Jaeggi	EMT Training Program
Albert Laicans	EMT Training Program, Alternate
X Ray Mosack	Paramedic Training Program
Vacant	Paramedic Training Program, Alternate
Jennifer Nulty	EMS Educator
Heather Calka	EMS Educator, Alternate

EMS AGENCY STAFF	EMS AGENCY STAFF
Richard Tadeo	Nichole Bosson, MD
Denise Whitfield, MD	Shira Schlesinger, MD
Jake Toy, MD	Chris Clare
Jacqueline Rifenburg	Ami Boonjaluksa
Frederick Bottger	Sam Calderon
Paula Cho	Mark Ferguson
Aldrin Fontela	Natalie Greco
Carola Jimenez	Han Na Kang
Nnabuike Nwanonenyi	Sara Rasnake
Gary Watson	Gerard Waworundeng
David Wells	

GUESTS	ORGANIZATION
Lyn Riley	LA County Sheriff's Dept
Ilse Wogau	LACoFD
Jim Goldsworthy	LAFD Air Operations
Jessie Castillo	PRN Ambulance
Luis Manjarrez	Glendale FD
Michael Stone, MD	USC EMS Fellow
Jennifer Shepard	LA County Sheriff's Dept
Caroline Jack	Beverly Hills FD
Issac Yang	Redondo Beach FD
Kelsey Wilhelm, MD	Compton FD
Kimberly Tan	UCLA Ctr for Prehospital Care
Joe Nakagawa, MD	Hawthorne PD
Marc Cohen, MD	LAFD; Multiple FDs Med Director
L. Mendoza	Lifeline Ambulance
Danielle Thomas	Lifeline Ambulance
David Milligan	Montebello FD
Danielle Ogaz	LACoFD
Dave Molyneux	AM West Ambulance
Travis Moore	La Verne FD
Theodor Ecklund	Pasadena FD
Edward Valdez	Mt Sac College
Puneet Gupta, MD	LACoFD
Jorge Fazzini	West Coast Ambulance
Israel Razo	Monrovia FD
Paula La Farge	LACoFD
Peter Garcia	Burbank FD
Catherine Borman	Santa Monica FD
Johnna Corbett	UCLA Ctr for Prehospital Care
Marianne Newby	UCLA Ctr for Prehospital Care
Jennifer Hunt	Long Beach FD
Ed Marquez	Glendale FD
Nicole Reid	LACoFD
Karyn Robinson	Montebello FD

1. CALL TO ORDER – Chair Carol Meyer, called meeting to order at 1:05 p.m.

2. INTRODUCTIONS AND ANNOUNCEMENTS

2.1 Committee Membership Changes *(Commissioner Meyer)*

The following Committee membership changes were announced:

- Committee Vice-Chair: Commissioner, Fire Chief Kenneth Powell, replacing Paul Espinosa.
- Prehospital Care Coordinator, Alternate: Melissia Turpin from Dignity Health – St. Mary Medical Center. *(Jenny Van Slyke will move to the Primary Representative position)*
- EMS Educator, Alternate: Heather Calka, UCLA Center for Prehospital Care. *(Jennifer Nulty will remain as the Primary Representative)*

2.2 EMSAAC 2025 Annual Conference *(Richard Tadeo)*

- EMS Agency Director reminded attendees of the upcoming EMSAAC Conference, scheduled for May 28 and 29, 2025, with a pre-conference on disaster medical response on May 27, 2025. Sign up information was provided inside the distributed brochure and also located at the following weblink: https://emsaac.org/conference/

2.3 Joint Educational Session *(Shira Schlesinger, MD)*

- The next PedAC/MAC Joint Educational Session, titled "Don't Drop the Beat: Pediatric Cardiac Arrest", will take place on June 3, 2025, 11:45am-1:00pm via ZOOM. Information to join this educational session was distributed. Calendar invite will be sent to all providers.

3. APPROVAL OF MINUTES (Harter/Mosack) February 12, 2025, minutes were approved as written.

4. UNFINISHED BUSINESS

There was no unfinished business.

5. NEW BUSINESS

5.1 9-1-1 IFT Cognito Form *(Chris Clare)*

- A workgroup was formed to review the appropriateness of 9-1-1 IFTs; and to determine what interventions are needed to address concerns.
- To assist in determining the appropriateness of 9-1-1 IFTs, a Cognito form was developed. This form is to be completed by the provider (and hospital) after each 9-1-1 IFT call-out.
- Once form is completed, this information will be provided to the EMS Agency for review and to evaluate for trends.

Policies for Discussion; Action Required:

5.2 Reference No. 814, Determination/Pronouncement of Death in the Field *(Nichole Bosson, MD)*

Policy reviewed and approved as written.

M/S/C (Brown/Harter) Approve: Reference No. 814, Determination/Pronouncement of Death in the Field.

Policies for Discussion; No Action Required:

The following policies were reviewed as **information only**:

5.3 Reference No. 1309, MCG: Color Code Drug Doses *(Nichole Bosson, MD)*

Agitated Delirium Changes *(Shira Schlesinger, MD)*

5.4 Reference No. 526, Behavioral/Psychiatric Crisis Patient Destination
5.5 Reference No. 526.1, Medical Clearance Criteria Screening Tool for Psychiatric Urgent Care Centers (PUCC)
5.6 Reference No. 838, Application of Patient Restraints

Committee had the following recommendation:

- Pg 3, III.B.3. (Last sentence): Add wording to include contacting the base hospital, when possible.

5.7 Reference No. 1200.2, Treatment Protocol: Base Contact Requirements
5.8 Reference No. 1200.3, Treatment Protocol: Provider Impressions
5.9 Reference No. 1200.4, Treatment Protocol: BLS Upgrade to ALS Assessment
5.10 Reference No. 1209, Treatment Protocol: Behavioral / Psychiatric Crisis
5.11 Reference No. 1307, MCG: Care of the Patient with Agitation

5.12 Reference No. 1307.3, MCG: Common Etiologies of Agitation, Field Presentation, Likelihood Verbal De-Escalation
5.13 Reference No. 1317.25, MCG: Drug Reference – Midazolam
5.14 Reference No. 1373, MCG: Treat Protocol Quality Improvement Fallout Data Dictionary

6. REPORTS AND UPDATES

6.1 Sidewalk CPR *(David Wells)*

- Los Angeles County's Sidewalk CPR event will be held on Monday, June 2, 2025, at Grand Park in downtown Los Angeles, from 10:00 a.m. to 12:00 p.m.
- Dr. Bosson will start off the event which will include press coverage and speakers from LA County Fire Department, Los Angeles (City) Fire Department, American Heart Association and a cardiac arrest survivor.
- Currently, 38 hospitals, private providers, and public providers have signed up to provide training at various sites in the County during the week. Please contact the EMS Agency if you are planning to host an event, so this information can be posted on the EMS Agency webpage.
- More information can be found on the EMS Agency's webpage; including various training locations, training videos and interviews with cardiac arrest survivors.

6.2 EMS Update 2025 *(Shira Schlesinger, MD)*

- Paramedic and MICN training for this year's EMS Update has started and must be completed by June 30, 2025. (3.5 hours of continuing education is available).
- Feedback for EMS Update 2025 and suggestions for Update 2026 are welcomed.
- If your department was not able to send a representative to a Train-the-Trainer class and you're in need to train your staff, please contact Dr. Schlesinger at SSchlesinger2@dhs.lacounty.gov.

6.3 EmergiPress *(Shira Schlesinger, MD)*

- The March/April 2025 EmergiPress has been posted on the EMS Agency's webpage. Topic: HERT (Hospital Emergency Response Team). One (1) hour of continuing education (CE) credit is available.
- Providers are encouraged to share this information with your staff and complete the training prior to the end of 2025.

6.4 EMS and Law Enforcement Co-Response (ELCOR) Task Force *(Nichole Bosson, MD)*

- This standing committee is meeting quarterly with local law enforcement colleagues.
- Task Force is developing a law enforcement training module on the co-response of the agitated person. (Similar to the training in EMS Update 2025)
- Other topics being reviewed include law enforcement responses to pediatric patients and critically ill patients.
- Task Force is looking for law enforcement agencies willing to participate in the filming of future educational topics. If interested, contact Dr. Bosson at NBosson@dhs.lacounty.gov

6.5 Research Initiatives and Pilot Studies

6.5.1 Prehospital Blood Transfusion – LA DROP *(Nichole Bosson, MD)*

- Pilot started on April 1, 2025, with LA County Fire Department and Compton Fire Department.
- Compton Fire Department reported the first case in Los Angeles County to administer pre-hospital blood product on April 15, 2025.
- Los Angeles County Fire Department currently has three squads capable of providing blood products and plan to expand to 11 total squads.
- Currently, Ventura and Riverside Counties have also implemented this pilot. Sacramento and San Bernardino Counties soon to be approved.

6.5.2 ThoraSite Pilot *(Denise Whitfield, MD)*

- Pilot involved the use of a landmarking device for needle thoracostomy insertion and concluded in December 2024. Aggregated quality improvement data was presented through a PowerPoint presentation.
- Due to the positive data outcome, this device has been approved for optional use in LA County.
- Thank you to LA County, Torrance, Culver City and Compton Fire Departments for their participation.

6.6 PediDOSE Trial *(Nichole Bosson, MD)*

- Enrollment continues. No changes to report.
- Starting July 1, 2025, this trial will transition to include patients 12-16 months of age in the age-based dosing of midazolam.

6.7 Pedi-PART *(Nichole Bosson, MD)*

- Nationally, there are currently 591 patients enrolled in this study (nearly 200 from LA County). The EMS Agency should soon be receiving the second study analysis.
- Zoll Medical: Providers who currently do not have the Zoll premium case review account, will be eligible for a free membership to include this case review feature throughout the study. The Zoll research team (led by Chris Graft) has reached out to the providers who qualify for the free product, to arrange for installation. Additional questions/support can be directed to Dr. Bosson.
- **Reminder:** As part of this study, all pediatric patients requiring respiratory support (including seizure patients) are to have pediatric pacing pads applied and utilized, for accurate monitoring. Used pacing pads will be replaced through the EMS Agency.
- RALPH Devices: Provides the paramedic with the correct airway technique for the day (i-gel or BMV) during airway management. The repaired devices will be redistributed to public providers, if willing to utilize. The use of the RALPH device is optional.

6.8 California Office of Traffic Safety (OTS) Grants Projects

6.8.1 RAPID LA County Medic Mobile Application *(Nichole Bosson, MD and Denise Whitfield, MD)*

- Application has been working well. However, an intermittent connectivity issue has been reported and the vendor is working hard to resolve.
- Drug Doses Application: A new version of this application is being distributed, which should resolve the above issue. If providers continue experiencing issues, please contact Dr. Whitfield at DWhitfield@dhs.lacounty.gov.
- Protocol Application Study: On April 17 and 18, 2025, the EMS Agency and several paramedics will be testing this application with two types of scenarios.
- Providers interested in joining the EMS Agency in continuing this study at their own department, may contact Dr. Whitfield. This study requires the completion of two scenarios by 72 paramedics. As an incentive to participate, there will be a cash distribution of $120.00 and continuing education offered to all participants.

6.8.2 Trauma Dashboards/Curriculum *(Shira Schlesinger, MD)*

- Signed contracts to operationalize live dashboards have been completed between the EMS Agency and ESO. ESO will be creating a data repository and the initial visualization for the trauma dashboard.

6.9 Health Data Exchange *(Richard Tadeo)*

- Phase I of this project has started with meetings between ESO and the participating Trauma and Base hospitals. These meetings have provided an overview of the HDE initiative.
- Meetings with individual hospitals will be scheduled over the next few months.
- Adventist Health – Glendale, is expected to be the first hospital to go live with the HDE system.
- Once the "Business Associate Agreement" is complete, providers can begin participating in these meetings. The EMS Agency Director will reach out to the providers.

7. OPEN DISCUSSION

7.1 Mechanical Compression Devices – Pediatric Patients *(Nichole Bosson, MD)*

- Prior to this meeting, provider agencies and hospitals have asked the EMS Agency whether mechanical compression devices may be utilized on pediatric patients (14 years and under).
- After reviewing the manufacturer's guidelines from Auto Pulse and Lucas devices, it was found that the use of these devices on pediatric patients are no longer contraindicated. However, the device must "fit" the patient. To determine if the device fits the patient, videos are available for review. Those interested in these videos, contact Dr. Kelsey Wilhelm at KWilhelm@dhs.lacounty.gov
- The EMS Agency has designed a future EmergiPress educational video on the proper use of the Auto Pulse and Lucas devices; focusing on the patient transfer from field devices to hospital devices. These videos are also available by contacting Dr. Shira Schlesinger.

7.2 Trauma Throw Bags – Distribution *(Nnabuike Nwanonenyi)*

- Trauma throw bags will be distributed today at the EMS Disaster Warehouse, following this meeting. Paperwork and process for obtaining these bags was explained.
- The intent of these trauma bags is for them to be carried on supervisor vehicles and distributed at scenes of major trauma incidents.
- Any questions or to request an alternate pick-up time, contact Nnabuike Nwanonenyi (BK) at Nwanon@dhs.lacounty.gov

7.3 Capnography for Spontaneous Breathing Patients *(Nichole Bosson, MD)*

- Currently, inventory lists for paramedic units only state that the waveform capnography is mandatory. After discussing the importance of using side-stream capnography on specific conscious patients, this Committee and Medical Directors from two of the larger provider agencies in LA County, supported the transition of making this item "mandatory" for all ALS units.

7.4 Naloxone Level Behind Program *(David Wells)*

- The EMS Agency was approached by the Department of Public Health, to determine the status of public provider's participation in the Leave Behind Narcan program. The EMS Agency encourages all provider agencies currently or planning to participate in the program to attend the CDPH webinar. *(See Ref. 1337, MCG: Naloxone Distribution by EMS Providers)*

7.5 Buprenorphine Program *(Nichole Bosson, MD and Denise Whitfield, MD)*

- Due to the large volume of residents in Los Angeles County experiencing an opiate abuse disorder, the EMS Agency felt it would be beneficial to explore the possibility of implementing an EMS Buprenorphine Program in the LA County EMS system.
- This opiate abuse disorder treatment program is being funded by the State of California. Currently this paramedic-initiated Program is being utilized in Alameda County (Northern California).
- As part of the California Bridge Program, emergency departments have paired with social services to find ways to treat patients with an opioid addiction disorder. Since this infrastructure is now functioning, the Program is looking into the benefits of adding paramedic-initiated treatment to this project (including the administration of buprenorphine).
- Providers interested in joining the EMS Agency on this project, can contact either Dr. Bosson or Dr. Whitfield.

8. NEXT MEETING – June 18, 2025

9. ADJOURNMENT - Meeting adjourned at 3:05 p.m.

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

(EMT, PARAMEDIC, MICN)

SUBJECT: **MEDICAL MANAGEMENT OF PREHOSPITAL CARE** REFERENCE NO. 201

PURPOSE: To provide guidelines for prospective, concurrent and retrospective medical management of the emergency medical services (EMS) system in Los Angeles County by the EMS Agency, hospitals, and provider agencies.

AUTHORITY: Health and Safety Code, Division 2.5, Sections 1797.176, 1797.220 and 1798(a)
California Code of Regulations, Title 22, Section 100091.04, 100096.01 - .03
Health Insurance Portability and Accountability Act of 1996
Hospital Preparedness Program (HPP) Agreement

DEFINITIONS:

Medical management consists of three components:

Prospective: Prior to delivery of patient care – off-line medical direction that uses scientific principles and practice standards to establish training objectives, and curriculum development for the standardization of patient care.

Concurrent: During delivery of patient care – on-line or on-scene medical direction of prehospital personnel caring for patients in the field. This allows for individualization of patient care and the ability to ensure optimal use of system resources through direct communication or observation.

Retrospective: Following delivery of patient care – off-line medical direction composed of field care audits and case reviews for the purpose of ensuring quality improvement.

PRINCIPLES:

1. Medical management provides the framework and authorization for EMS personnel to provide emergency treatment outside the hospital. It implies that there is accountability throughout the planning, implementation, monitoring, and evaluation of the EMS system and requires a collaborative effort among all system participants. Medical management is based upon national, state, and community standards of care.

2. The EMS Agency, base hospitals, and provider agencies are responsible for ensuring that EMS personnel have experience in and knowledge of local EMS agency policies, procedures, and guidelines.

POLICY:

I. Prospective Medical Management

APPROVED: _____ _____
Director, EMS Agency Medical Director, EMS Agency

A. The Medical Director of the EMS Agency shall ensure the development, implementation, and revision of written treatment protocols, medical policies and procedures including but not limited to:

1. Medical Control Guidelines

2. Treatment Protocols

3. Base hospital contact and destination guidelines

4. Local EMT scope of practice

5. Local paramedic scope of practice and accreditation requirements

6. Policies for the initiation, completion, review, evaluation, and retention of patient care records.

B. Base hospitals shall maintain written agreements with the EMS Agency indicating concurrence with the requirements of the EMS Agency's policies and procedures.

C. Provider agencies shall comply with applicable agreements, State and local policies and procedures specified in the Prehospital Care Manual.

II. Concurrent Medical Management

A. The EMS Agency shall ensure that a communication system is in place to allow for direct voice communication between paramedics, their assigned base hospital, and the Los Angeles County Medical Alert Center.

B. Base hospitals shall:

1. Maintain telecommunication equipment capable of communicating with ALS Units assigned to the hospital.

2. Ensure that a base hospital physician is immediately available for consultation when an ALS Unit contacts the base, and that either a base hospital physician or MICN provides direct voice communication for medical treatment orders and/or patient destination or other disposition.

3. Ensure that base hospital physicians and MICNs giving medical direction to paramedics are trained in, and have experience in and knowledge of, base hospital communications and the local EMS agency policies, procedures, and protocols.

4. Use the Los Angeles County Treatment Protocols. Any consistent deviation from these protocols must be requested in writing and approved by the Medical Director of the EMS Agency.

5. Complete Base Hospital Report Forms approved by the EMS Agency as defined in Ref. No. 606, Documentation of Prehospital Care.

6. Provide a mechanism to record, retain, and retrieve audio recordings of all voice field communications between the base and receiving hospitals and the paramedics.

C. Provider agencies shall:

1. Ensure that paramedics use and maintain telecommunications with assigned base hospitals.

2. Comply with requirements specifically addressed in medical treatment policies including, but not limited to, Ref. No. 1200, Treatment Protocols, et al., and Ref. No. 1300, Medical Control Guidelines, et al.

3. Ensure that EMS personnel have education and knowledge of local EMS agency policies, procedures, and protocols.

4. Complete an EMS patient care record approved by the EMS Agency as defined in Ref. No. 606, Documentation of Prehospital Care.

III. Retrospective Medical Management

A. The Medical Director of the EMS Agency shall:

1. Maintain a systemwide quality improvement program that addresses system issues and develops standards for prehospital care.

2. Ensure that written records of prehospital care are reviewed on an ongoing basis.

3. Ensure that mechanisms are in place to provide organized evaluation of and continuing education for EMS personnel, including evaluation of skills programs.

4. Maintain a system-wide prehospital care database and make relevant data available to system participants.

B. Base hospitals shall:

1. Maintain a quality improvement program approved by the EMS Agency.

2. Participate in the EMS Agency's quality improvement program to include making available relevant records for program monitoring and evaluation. A mechanism shall be in place for provider agencies to obtain their respective audio communications for review and educational purposes as approved by each individual base hospital's Protected Health Information and Risk Management policies. It is recommended that an agreement for release and limited use of paramedic base hospital audio recordings be utilized for the release of such audio communications (see sample form Ref. No. 201.1). Patient confidentiality shall be maintained at all times.

3. Include in the hospital's quality improvement (QI) plan indicators that, at a minimum, include review of the following:

a. Base Hospital Report Forms

b. Paramedic base hospital audio communications between paramedics and base hospital physicians and MICNs

4. Collect data on runs when the base hospital is the receiving hospital, including ED diagnosis.

5. Provide a continuing education program for prehospital care personnel approved by the EMS Agency as defined in Ref. No. 1013, EMS Continuing Education (CE) Provider Approval and Program Requirements, which:

a. Complements the continuing education program provided by the assigned provider agencies.

b. Demonstrates a relationship between the base hospital's quality improvement program and the continuing education program offered.

6. Develop an internal system of documentation for audio communications and records reviewed, actions recommended and/or taken, and problem resolution.

7. Participate in the EMS Agency's countywide data collection program.

C. Provider Agencies shall:

1. Maintain a quality improvement program approved by the EMS Agency.

2. Participate in the EMS Agency's quality improvement program to include making available relevant records for program monitoring and evaluation. As part of the QI program, provider agencies may obtain copies of their respective audio paramedic communications from base hospitals for review and educational purposes provided that they have developed a written plan for security and confidentiality.

3. Include in the provider agency's QI plan, indicators that, at a minimum, include review of EMS patient care records that are:

a. Completed by EMTs and/or paramedics on patients for whom either a paramedic unit was not dispatched, was canceled, or transport by ambulance did not occur.

b. Completed by EMTs and/or paramedics on patients for whom no base contact was made, when indicated by provider impression, treatment protocol or medical control guideline, but the patient was transported by ambulance.

c. Completed by EMTs and/or paramedics on patients for whom neither base hospital contact nor transport occurred when indicated by provider impression, treatment protocol or medical control guideline

4. Develop an internal system of documentation for EMS patient care records and records reviewed, actions recommended and/or taken and resolution of problems.

5. Participate in the EMS Agency's countywide data collection program as described in Ref. No. 606, Documentation of Prehospital Care, Ref. No. 607, Electronic Submission of Prehospital Data, and Ref. No. 608, Retention and Disposition of the Prehospital Care Patient Care Records.

6. Provider agencies that have a continuing education program approved by the EMS Agency shall:

    a. Demonstrate~~s~~ a relationship between the provider agency's quality improvement program and the continuing education offered.

    b. Ensures ongoing clinical competency and skill maintenance of EMS clinicians.

CROSS REFERENCE:

Prehospital Care Manual:

Ref. No. 201.1, **Sample Agreement for Release and Limited Use of Paramedic Base Hospital Audio Recordings**
Ref. No. 214 **Base Hospital and Provider Agency Reporting Responsibilities**
Ref. No. 606, **Documentation of Prehospital Care**
Ref. No. 607, **Electronic Submission of Prehospital Data**
Ref. No. 608, **Retention and Disposition of the Prehospital Care Patient Care Records**
Ref. No. 620, **EMS Quality Improvement Program (EQIP)**
Ref. No. 1013, **Prehospital Continuing Education (CE) Provider Approval and Program Requirements**
Ref. Nos. 1200, **Los Angeles County Treatment Protocols**
Ref. Nos. 1300, **Medical Control Guideline**

POLICY REVIEW – COMMITTEE ASSIGNMENT REFERENCE NO. 202.1
(ATTACHMENT A)

REFERENCE NO. 201, Medical Management of Prehospital Care

	Committee/Group	Date Assigned	Approval Date	Comments* (Y if yes)
EMS ADVISORY	Base Hospital Advisory Committee			
	Provider Agency Advisory Committee			
OTHER COMMITTEES / RESOURCES	Medical Council	3/4/2025	3/4/2025	No
	Trauma Hospital Advisory Committee			
	Pediatric Advisory Committee			
	Ambulance Advisory Board			
	EMS QI Committee			
	Hospital Association of Southern California			
	County Counsel			
	Disaster Healthcare Coalition Advisory Committee			
	Other: DRC Coordinators			

***See Ref. No. 202.2, **Policy Review - Summary of Comments**

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

SUBJECT: **EXTRACORPOREAL CARDIOPULMONARY RESUCITATION (ECPR) RECEIVING CENTER STANDARDS**

REFERENCE NO. 321

PURPOSE: To establish minimum standards for the designation of an Extracorporeal Cardiopulmonary Resuscitation (ECPR) Receiving Center to ensure that select patients transported by the 9-1-1 system in Los Angeles County with out-of-hospital cardiac arrest (OHCA) refractory to conventional therapies and who meet ECPR criteria, are transported to a hospital appropriate to their needs.

AUTHORITY: California Code of Regulations (CCR), Title 22, Division 9, Chapter 6.2

DEFINITIONS:
Board Certified (BC): Successful completion of the evaluation process through one of the Member Boards of the American Board of Medical Specialists (ABMS) or American Osteopathic Association (AOA) including an examination designed to assess the knowledge, skills and experience necessary to provide quality patient care in a particular specialty.

Board Eligible (BE): Successful completion of a residency training program with progression to board certification based on the timeframe as specified by the ABMS or AOA for a specific specialty.

Extracorporeal Membrane Oxygenation (ECMO): Provision of oxygen and carbon dioxide exchange through the use of extracorporeal circuit consisting minimally of a blood pump, artificial lung, and vascular access cannula, using blood flows sufficient to support oxygenation and concomitantly enhance carbon dioxide removal. Also known as extracorporeal life support (ECLS).

ECMO Candidate: A patient with out-of-hospital cardiac arrest that meets LA County EMS criteria for consideration of extracorporeal membrane oxygenation; this includes patients with initial shockable rhythm refractory to conventional cardiopulmonary resuscitation or with recurrent arrest, and select other patients with potential reversible etiologies.

ECMO Coordinator: A registered nurse (RN), respiratory therapist (RT), or perfusionist who specializes in the management and operation of the ECMO machine.

ECMO Specialist: A technical specialist trained to manage the ECMO machine and the needs of the patient on ECMO.

ECPR Medical Director: A qualified physician specialist privileged by the hospital to perform cannulation and active in performing ECMO who is responsible for the ECMO program.

ECPR Program Manager: A physician, advanced practitioner, registered nurse (RN), respiratory therapist (RT), or perfusionist appointed by the hospital to monitor, coordinate, and evaluate the ECPR Program and responsible for the supervision and training of the staff, maintenance of equipment, and collection of patient data.

APPROVED: _____ _____
Director, EMS Agency Medical Director, EMS Agency

Extracorporeal Cardiopulmonary Resuscitation (ECPR) Receiving Center: A licensed general acute care facility that is designated by the Los Angeles County EMS Agency as a STEMI Receiving Center, meets all the requirements listed in this policy and has been designated by the LA County EMS Agency as an ECPR receiving center.

Out-of-Hospital Non-traumatic Cardiac Arrest (OHCA): Sudden, sometimes temporary cessation of function of the heart not due to a traumatic cause.

Perfusionist: An individual who has specialized training and certification in managing the heart-lung machine in the operating room and/or ECMO at the bedside.

Promptly Available: Able to be physically present in the emergency department (ED) within a period of time that is medically prudent and appropriate to the patient's clinical condition; and further, should not have a measurable harmful effect on the course of the patient management or outcome.

Qualified Specialist: A physician licensed in the State of California who has become BC or BE in the corresponding specialty by American Board of Medical Specialties (ABMS) or American Osteopathic Association (AOA).

Return of Spontaneous Circulation (ROSC): Following cardiopulmonary arrest, ROSC is the restoration of a spontaneous perfusing rhythm. Signs 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.

STEMI Receiving Center (SRC): A licensed general acute care facility that meets the minimum hospital STEMI care requirements pursuant to CCR Section 100270.124 and is able to perform percutaneous coronary intervention (PCI), manage cardiac arrest and post-resuscitation care, and is designated as a SRC by the Los Angeles County EMS Agency.

POLICY:

I. ECPR Designation / Re-Designation

A. ECPR initial designation and re-designation is granted for up to three years based on maintenance of these standards and after a satisfactory review and approval by the EMS Agency.

B. The EMS Agency reserves the right to perform a scheduled on-site survey or request additional data at any time.

C. Prior to designation, the hospital shall be currently designated as a STEMI Receiving Center (SRC) for a minimum of five years and meet the SRC performance metrics, listed in Ref. No. 320.3, including first-medical contact to balloon time and door to balloon time, for a minimum of 12 months.

D. The ECPR Receiving Center must have an existing veno-arterial (V-A) ECMO program for a minimum of 12 months with quality improvement processes and managed a minimum of 6 patients on V-A circuit.

E. The ECPR Receiving Center must currently operate as an LA County designated Paramedic Base Hospital.

F. To be considered for ECPR designation, the hospital must provide workflow on receiving potential ECPR candidates to include but not limited to: procedures for receiving prenotification from EMS; team activation; ED workflow; location and procedures for cannulation; assessment for initiation and withdrawal of ECPR; multi-disciplinary team care while on ECPR and post-cannulation; and quality improvement program.

G. The ECPR Receiving Center shall immediately provide written notice to the Medical Director of the EMS Agency if unable to adhere to any of the provisions set forth in these ECPR Standards.

H. The ECPR Receiving Center shall provide a 90-day, written notice to the EMS Agency Medical Director of intent to withdraw from the ECPR program.

I. The ECPR Receiving Center shall notify the EMS Agency, in writing, of any change in status of the ECPR Medical Director, ECPR Program Manager, or data entry personnel by submitting Reference No. 621.2, Notification of Personnel Change Form.

II. General Hospital Requirements

A. Appoint an ECPR Medical Director and ECPR Program Manager who shall be responsible for meeting the ECPR Program requirements and allocate non-clinical time such that they can meet the requirements of the ECPR standards.

B. Have a fully executed Specialty Care Center ECPR Designation Agreement with the EMS Agency.

III. ECPR Leadership Requirements

A. ECPR Medical Director

1. Qualifications:

a. A qualified specialist in emergency medicine, cardiology, pulmonology, critical care, or surgery (thoracic, cardiovascular, or trauma), or other qualified specialist with specific training and experience in ECMO support and credentialed to perform ECMO cannulation.

b. This person typically serves as the ECMO Director, providing oversight for the ECMO program including the ECPR program.

2. Responsibilities:

a. Provide medical oversight for the ongoing performance of the ECPR program

b. Ensure the credentialing of clinicians who care for ECMO patients and/or who will manage the ECMO circuit

c. Collaborate with the ECPR Program Manager to ensure adherence to these standards

d. Participate in the relevant hospital committees associated with ECMO, cardiac arrest, and post-resuscitation care.

e. Liaison with hospital administration, ECPR Program Manager, medical and clinical staff across the patient's continuums of care

f. Ensure continuing education and competency evaluation in ECMO

g. Attend 100% of the EMS Agency's SRC and ECPR QI Meetings onsite or via video conference. Fifty percent (50%) of meetings may be attended by an alternate ECPR qualified specialist from the same ECPR Receiving Center.

h. Confirm proper and valid data submission to the EMS Agency

B. ECPR Program Manager

1. Qualifications:

a. A physician, advanced practitioner (physician assistant, nurse practitioner), registered nurse, or respiratory therapist licensed in the State of California, or a certified clinical perfusionist, with a minimum of 1-year ICU experience.

b. Knowledgeable in the care of the ECMO and post-cardiac arrest patient.

c. Experience with program management and quality improvement.

d. This person typically serves as the hospital's ECMO Coordinator.

2. Responsibilities:

a. Collaborate with the ECPR Medical Director to ensure adherence to these Standards

b. Confirm hospital policies are consistent with these Standards

c. Implement, maintain, and monitor ECPR QI programs

d. Ensure continuing education and competency evaluation in ECMO

e. Ensure that program availability is consistent with EMS policies and processes are in place to maximize the 24/7 team availability

f. Collaborate with the ED Medical and Clinical Directors on the management of patients with OHCA who meet criteria for ECMO

g. Liaison with hospital administration, ECPR Medical Director, medical and clinical staff across the ECMO patient continuums of care

h. Participate in the relevant hospital committees associated with ECMO, cardiac arrest, and post-resuscitation care

i. Serve as a contact person for the EMS Agency and be available upon request to respond to County business

j. Attend 100% of the EMS Agency's SRC and ECPR QI Meetings onsite or via video conference. For both, fifty percent (50%) of meetings may be attended by an alternate clinician from the ECPR team.

k. Ensure processes are in place to identify and track patients transported to the ECPR center by EMS

l. Provide oversight of complete, accurate and timely data collection and submission

IV. ECPR Program Personnel Requirements

A. Sufficient qualified ECMO cannulators to maintain program availability 24 hours per day/7 days per week/365 days per year

B. ECMO specialists (clinicians trained to operate the ECMO circuit)

C. An ECPR team available 24/7/365 to evaluate and care for the ECMO candidate upon the patient's arrival to the ED or within 5 minutes thereof, which includes at a minimum:
   a. One ECMO-trained physician dedicated to the ECPR team and on call at only one facility at a time
   b. One ECMO specialist dedicated to the ECPR team

D. Other qualified specialist available to manage the other aspects of the patient's care including the resuscitation

E. Cardiothoracic and/or vascular surgery available on call 24/7/365

F. All physicians performing emergent ECMO cannulation must maintain current board certification, or be board eligible, in their specialty of practice

V. Training and Continuing Education

A. ECPR Program Manager and Medical Director shall ensure staff are sufficiently trained and maintain competency in ECMO. Regular team-based simulation are highly encouraged.

B. Training opportunities shall include, but not limited to:

1. Didactic lectures

2. Hands-on training with ECMO equipment

3. Bedside training

4. Simulations

C. For facilities performing V-A ECMO <24 cases per year (average < 2/month) and/or if ECMO personnel are not involved in ECPR patient management for more than two (2) months consecutively, team-based ECPR patient simulations shall occur to ensure at least one ECPR patient experience quarterly. Simulations should include all aspects of the process from patient arrival with EMS, to cannulation with ongoing resuscitation and through ICU management, and should involve the relevant clinicians.

D. ECPR Receiving Centers should provide periodic ECPR Base Hospital education with collaboration between the ECPR Program Manager/Medical Director, Prehospital Care Coordinator/Base Hospital Medical Director and EMS provider agencies.

VII. ECPR Program Plan

The hospital shall develop and maintain an ECPR Program Plan pertaining to the care of the ECPR patient. The plan shall be reviewed by the ECPR Program Manager annually and approved by the appropriate committee(s) minimally every three years. The ECPR Program Plan should include, at minimum, the following:

A. Job descriptions and organization structure clarifying the relationship between the ECPR Medical Director, ECPR Program Manager and the ECPR team

B. ECPR team activation guidelines with the ability to track activations and cancelations

C. A process for immediate notification of the emergency physician and ECPR team upon EMS notification of an ECMO candidate transport

D. A single call activation system to directly activate the ECPR team

E. Policy and procedures outlining the following:

1. ECPR team activation

2. ED workflow for the potential ECPR patient

3. Indications and contraindications for ECPR

4. Clinical management of the ECPR patient including but not limited to:

    a. Process for transfer from prehospital to hospital equipment while minimizing interrupting chest compressions
    b. Coordination between ECPR team and the clinical care team (e.g., emergency department clinicians and/or cath lab staff)
    c. Transition of the patient through phases of care (ED, cath lab, ICU)

5. ECMO circuit management

6. Maintenance of equipment

7. Policy for termination of ECPR therapy in patients who fail to recover and cannot be weaned, including involvement of a multi-disciplinary team, and availability of long-term cardiac support either on site or through transfer agreements

8. Follow-up of the ECPR patient short and long-term outcomes

9. Process for the triage and treatment of simultaneously arriving ECPR patients

F. Plan to ensure 100% of ECPR patients receive immediate evaluation for reversible causes of OHCA.

1. Immediate coronary angiography for patients without an obvious alternate noncardiac cause
2. Imaging and/or thrombolysis/thrombectomy for suspected massive pulmonary embolus

G. Post resuscitation care policies, including initiation of TTM

H. Involvement of a multidisciplinary team to include but not limited to emergency medicine, cardiology, neurology and/or intensive care medicine with experience in prognostication, respiratory therapy and palliative care.

I. A process for feedback to the transporting paramedics on the patient's presumed diagnosis and ED disposition

J. A process to collaborate with EMS provider agencies to integrate electronic prehospital patient care (ePCR) records into the hospital electronic medical record

VIII. Equipment and Supplies

A. ECMO supplies shall be easily accessible, readily available, and in close proximity to the ED and/or cath lab depending on the designated location(s) for cannulation.

B. Required ECMO equipment and supplies include:

1. ECMO system that consists of a suitable blood pump, a system for servo-regulation, blood heat exchanger and warming unit

2. Appropriate disposable materials including membrane oxygenator tubing packs and connectors

3. Primed circuit or appropriate solution (crystalloid or blood) available to prime the circuit

4. Device for monitoring the level of anticoagulation including its appropriate supplies

5. Backup components for the ECMO system and supplies for all circuit components

6. Adequate lighting to support surgical interventions

7. Supplies for revision of cannulation and for exploration of bleeding complications

8. Access to blood bank, pharmaceuticals and radiology as needed

C. A mechanical compression device must be available in emergency department for transition on patient arrival and use during cannulation

IX. Data Collection and Submission Requirements

A. Participate in the data collection process established by the EMS Agency.

B. Ensure adequate data entry personnel to meet data entry requirements. Back-up data entry personnel should be identified and trained in the event primary data personnel is unable to meet the data entry requirements.

C. Collaborate with ED and Base Hospital personnel to ensure capture and entry of patients meeting inclusion criteria into the Los Angeles County EMS Agency STEMI Receiving Center (SRC) database ECPR tab on an ongoing basis.

D. Maintain an Emergency Department (ED) Log to capture patients who are transported to the ED due to ECPR designation.

E. Submit data to the EMS Agency, within 45 days of patient's discharge, which shall include all patients who meet data inclusion criteria and all applicable data elements listed in Ref. No. 648, STEMI Receiving Center Data Dictionary

F. Maintain a minimum 90% compliance for:

1. Capture of patients meeting the data inclusion criteria

2. Data field completion

3. Data field accuracy

4. Timely data entry

G. Maintain active membership in the Extracorporeal Life Support Organization (ELSO). Submission of relevant data to ELSO for all ECMO and ECPR patients is highly encouraged but not required.

X. Quality Improvement

A. ECPR Program must include a comprehensive-multidisciplinary QI Meeting. This committee can be in conjunction with the SRC committee currently established.

1. Meeting participation should include the ECPR Medical Director, ECPR Program Manager, EMS clinicians and educators, emergency physicians, interventional cardiologists, ED and cath lab personnel, critical care

personnel, neurology, as well as other healthcare specialties involved in the care of ECPR patients such as vascular surgery, and thoracic surgery.

2. Meeting to be held quarterly, at a minimum.

3. Meeting minutes and roster must be maintained for each meeting and available for review.

B. Pertinent aspects of care such as treatment and management of the ECPR patients, should be tracked and trended with the identification of areas requiring improvement and the action(s) necessary to improve care.

C. The ECPR QI program shall:

1. Review the care and outcome on all (100%) ECPR patients and track and trend the following, at a minimum:

a. All ECPR related deaths

b. Major complications such as: limb ischemia, thromboembolism, hemorrhage requiring blood transfusion, ischemic stroke, infection, and organ injury

c. Any delays in care

2. Address other issues, processes, or personnel trends identified from hospital specific data (i.e., increase in fallouts over time).

3. ECPR center shall have a mechanism to provide feedback to EMS Providers (i.e., encrypted/secure e-mail). The feedback shall be provided within one (1) week of patient arrival at the ECPR center. Feedback shall include, but be not limited to, the following:

a. Date of service, sequence number, provider unit, patient age and gender, whether the patient received ECMO, survived to admission (and discharge if known) and positive feedback when a job was well done

b. Any quality-of-care concerns

CROSS REFERENCE

Prehospital Care Manual

Ref. No. 320, **ST-Elevation Myocardial Infarction (STEMI) Receiving Center (SRC) Standards**
Ref. No. 320.1, **Target Temperature Management Guidelines**
Ref. No. 320,3, **SRC Performance Measures**
Ref. No. 502, **Patient Destination**
Ref. No. 503, **Guidelines for Hospitals Requesting Diversion of ALS Patients**
Ref. No. 513, **S-T Elevation Myocardial Infarction (STEMI) Patient Destination**
Ref. No. 516, **Cardiac Arrest Patient Destination**
Ref. No. 621.2, **Notification of Personnel Change Form**
Ref. No. 648, **STEMI Receiving Center Data Dictionary**

Ref. No. 1308, **Medical Control Guideline: Cardiac Monitoring / 12-Lead ECG**

Current American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care

ACKNOWLEDGEMENTS:

The input of the ECPR Program Workgroup comprised of subject matter experts from Cedars-Sinai Medical Center, Los Angeles General Medical Center, MemorialCare Long Beach Medical Center, and Ronald Reagan UCLA Medical Center was essential in the initial development of these standards. Additional contributions were made by the Medical Council of the LA County EMS Agency, the LA County EMS Commission, the American Heart Association, and the Los Angeles County Medical Association. Information was also referenced from the Extracorporeal Life Support Organization (ELSO).

Reference No. 321, Extracorporeal Cardiopulmonary Resuscitation (ECPR) Receiving Center Standards

	Committee/Group	Date Assigned	Approval Date	Comments* (Y if yes)
EMS ADVISORY COMMITTEES	Provider Agency Advisory Committee	2/12/2025	2/12/2025	No
	Base Hospital Advisory Committee	2/5/2025	2/5/2025	No
OTHER COMMITTEES/RESOURCES	Medical Council	3/3/2025	3/3/2025	No
	Trauma Hospital Advisory Committee			
	Ambulance Advisory Board			
	EMS QI Committee			
	Hospital Association of So California			
	County Counsel			
	Other: LA County ECMO Pilot Study Workgroup	8/8/2024	8/8/2024	No
	SRC Advisory Committee	10/1/2024	10/1/2024	No

***** See **Summary of Comments** (Attachment B)

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

SUBJECT: 9-1-1 **PROVIDER AGENCY MEDICAL DIRECTOR** REFERENCE NO. 411

PURPOSE: To describe the role and responsibilities of Medical Directors of approved 9-1-1 Los Angeles County Emergency Medical Services (EMS) Provider Agencies.

AUTHORITY: California Health and Safety Code, Division 2.5, 1791.90

DEFINITIONS:

Board Certified (BC): Successful completion of the evaluation process through the American Board of Medical Specialties (ABMS) or American Osteopathic Association (AOA) including an examination designed to assess the knowledge, skills and experience necessary to provide quality patient care in a particular specialty.

Board Eligible (BE): Successful completion of a residency training program with progression to board certification based on the timeframe as specified by the ABMS or AOA.

Provider Agency Medical Director: A physician designated by an approved 9-1-1 EMS Provider Agency and approved by the Los Angeles County EMS Agency Medical Director, to provide advice and coordinate the medical aspects of field care, to provide oversight of all medications utilized by EMTs, paramedics, and advanced practice providers, if applicable, including controlled medications, and to oversee the provider's quality improvement process, as defined by the Los Angeles County EMS Agency

PRINCIPLE:

Medical Directors enhance the quality of prehospital care by providing medical expertise in EMS and serve as a liaison between the EMS Agency Medical Director, hospitals, and other Private Ambulance Operator and Public Provider Medical Directors to ensure the delivery of safe and effective medical care.

POLICY

I. 9-1-1 Provider Agency Medical Director

A. Qualifications

1. BC or BE in Emergency Medical Services (EMS) or Emergency Medicine (EM), with proof of significant experience and practice in EMS.

2. Current, unrestricted license to practice as a physician in the State of California

3. Engaged in the practice, supervision, or teaching of EM and/or EMS.

4. Knowledgeable on the current policies, procedures, and protocols of the Los Angeles County EMS Agency.

APPROVED: _____ _____
Director, EMS Agency Medical Director, EMS Agency

B. Responsibilities

1. Represents the medical needs of his/her 9-1-1 patients by describing EMS activity and advocating for optimal medical care and public health measures with policy decision makers within the jurisdiction of their provider agencies, in coordination with their chain of command.

2. Attend an EMS system orientation provided by the EMS Agency within six (6) months of hire.

3. Participate in a field care observation (ride-along) with the sponsoring agency within six (6) months of hire.

4. Attend the annual program review or participate in the exit summary.

5. Attends at least 50% of the Medical Advisory Council meetings. For meetings in which the medical director is unable to be present, designates a representative to attend for the purpose of receiving information.

6. Medical Direction and Supervision of Patient Care

    a. Advises the provider agency in planning and evaluating the delivery of prehospital medical care by EMTs and paramedics.

    b. Reviews and approves the medical content of all EMS training performed by the provider agency and ensures compliance with continuing education requirements of the State and local EMS Agency.

    c. Reviews and approves the medical components of the provider agency's dispatch system.

    d. Assists in the development of policies and procedures to optimize patient care.

    e. Reviews and recommends to the Innovation. Technology and Advancement Committee (ITAC) any new medical monitoring devices under consideration and ensures compliance with State and local regulation.

    f. Evaluates compliance with the legal documentation requirements of patient care.

    g. Participates in direct observation of field responses as needed. Medical direction during a direct field observation may be provided by the Provider Agency Medical Director in lieu of the base hospital under the following conditions:

        i. The EMTs, paramedics, advanced practice providers, if applicable, and Provider Agency Medical Director on scene must be currently employed by, or contracted with, the same provider agency.

ii. If base contact has already been established, the Provider Agency Medical Director may assume medical direction of patient care. The base hospital shall be informed that the Provider Agency Medical Director is on scene. They are not required to accompany the patient to the hospital.

iii. EMS personnel shall document the involvement of the Provider Agency Medical Director on the EMS Report Form when orders are given.

iv. The receiving hospital shall be notified of all patients whose field care is directed by a Provider Agency Medical Director.

h. Participates as needed with appropriate EMS committees and the local medical community.

i. Ensures provider agency compliance with Los Angeles County EMS Agency controlled substance policies and procedures.

6. Audit and Evaluation of Patient Care

a. Assist the provider agency in the development and implementation of a continuous quality improvement program to ensure the provision of quality medical care. Provides recommendations for training and operational changes based on quality improvement results.

b. Evaluates the adherence of provider agency medical personnel to medical policies, procedures and protocols of the Los Angeles County EMS Agency.

c. Coordinates delivery and evaluation of patient care with base and receiving hospitals.

7. Investigation of Medical Care Issues

a. Reviews incidents with unusual or adverse patient outcomes, inadequate performance of EMS personnel, and complaints related to the delivery of medical care.

b. Evaluates medical performance, gathers appropriate facts and, as needed, forwards those facts in writing to the Los Angeles County EMS Agency Medical Director.

c. Ensures that appropriate actions (e.g., training, counseling, etc.) are taken on cases with patient care issues with adverse outcomes, near misses, etc.

II. Role and Responsibilities of the EMS Provider Agency

A. Designates and maintains a Medical Director at all times.

B. Ensures Medical Director is involved in the development and approval of all medically related policies, procedures, quality improvement and medical dispatch programs, as applicable.

C. Ensure Medical Director has direct access to the department manager (e.g., Fire Chief) to discuss EMS performance, projects and concerns.

D. Provides the EMS Agency with notification of any changes in the designated Medical Director as specified in Reference No. 621, Notification of Personnel Change.

E. Immediately notify the EMS Agency in the event the Medical Director abruptly resigns or is otherwise unable to fulfill his/her duties and no immediate replacement is available.

CROSS REFERENCE:

Prehospital Care Manual:
Ref. No. 205, **Innovation, Technology and Advancement Committee (ITAC)**
Ref. No. 214, **Base Hospital and Provider Agency Reporting Responsibilities**
Ref. No. 414, **Specialty Care Transport Provider**
Ref. No. 422**, Authorization for Paramedic Provider Status of a Los Angeles County Based Law Enforcement Agency**
Ref. No. 621, **Notification of Personnel Change**
Ref. No. 621.1, **Notification of Personnel Change Form Provider & Training Programs**
Ref. No. 701, **Supply and Resupply of Designated EMS Provider Units/Vehicles**
Ref. No. 702, **Controlled Drugs Carried on ALS and SCT Units**
Ref. No. 816, **Physician at the Scene**

Reference No. 411, 9-1-1 Provider Agency Medical Director

	Committee/Group	Date Assigned	Approval Date	Comments* (Y if yes)
EMS ADVISORY COMMITTEES	Provider Agency Advisory Committee	10/16/24	10/16/2024	No
	Base Hospital Advisory Committee			
OTHER COMMITTEES/RESOURCES	Medical Council	9/3/2024 3/4/2025	9/3/2024 3/4/2025	No Yes
	Trauma Hospital Advisory Committee			
	Ambulance Advisory Board			
	EMS QI Committee			
	Hospital Association of So California			
	County Counsel			
	EMS Commission	1/15/25		Yes
	LA Area Fire Chiefs Association	4/10/25	4/10/25	Yes

***** See **Summary of Comments** (Attachment B)

POLICY REVIEW - SUMMARY OF COMMENTS REFERENCE NO. 202.2
(ATTACHMENT B)

REFERENCE NO. 411, 9-1-1 Provider Agency Medical Director

SECTION	COMMITTEE/DATE	COMMENT	RESPONSE
Policy I, B	EMS Commission 1/15/2025	Add new #1 "Represents the medical needs of his/her 9-1-1 patients by describing EMS activity and advocating for optimal medical care and public health measures with policy decision makers within the jurisdiction of their provider agencies, including meeting directly with policy decision-makers to whom the 9-1-1 provider agency reports (e.g., mayor, public safety committee, etc.) on a semi-annual basis to discuss community health needs."	Added
Policy II, C.	EMS Commission 1/15/2025	Add new C. "Ensure Medical Director has direct access to the department manager (e.g. Fire Chief) to discuss EMS performance, projects and concerns."	Added
Policy I, B	Medical Advisory Council 3/4/2025	Change wording from "…within the jurisdiction of their provider agencies, including meeting directly with policy decision-makers…" To "…jurisdiction of their provider agencies. Recommend meeting directly with policy decision-makers to…"	Change Made
Policy I, B	LA Area Fire Chiefs Association	Delete sentence "Recommend meeting directly with policy decision-makers to…"	Change made

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

(HOSPITAL)

SUBJECT: **GUIDELINES FOR HOSPITALS REQUESTING DIVERSION OF ALS/BLS PATIENTS**

REFERENCE NO. 503

PURPOSE: To outline the procedure for receiving hospitals and EMS providers to request diversion of advanced life support (ALS) and basic life support (BLS) patients.

AUTHORITY: Health & Safety Code, Division 2.5, Sections, 1797.220
California Code of Regulations, Title 13, Section 1105 (c)

DEFINITIONS:

Advanced Life Support Patient (ALS): A patient who requires paramedic assessment and/or intervention listed in Ref. No. 803, Los Angeles County Paramedic Scope of Practice, this includes but not limited to patients meeting Base contact requirements outlined in Ref. No. 1200, Treatment Protocols, et al.

Basic Life Support Patient (BLS): A patient who **only** requires Emergency Medical Technician (EMT) assessment and/or intervention as listed in Ref. No. 802, Emergency Medical Technician (EMT) Scope of Practice.

PRINCIPLE:

1. A receiving hospital may request diversion of 9-1-1 ALS and/or BLS patients away from its emergency department (ED) when unable to care for additional patients due to inadequate staffing, equipment, and/or critical systems or infrastructure.

2. An EMS provider agency may request diversion of 9-1-1 ALS and/or BLS patient away from an ED that is unable to assume care of the patient due to prolonged ambulance patient offload time as outlined in Ref. No. 503.1

3. Base hospitals will honor diversion requests based on patient condition and available system resources.

4. Hospital diversion data are used in EMS system analysis, and to formulate critical early indicators of syndrome-specific illness outbreaks within the County.

POLICY:

I. In general, diversion requests shall be communicated through the ReddiNet system.

II. Each hospital shall maintain a current diversion policy which requires the decision to request diversion be made jointly by representatives of the hospital's administration, emergency department, specialty services, and nursing. The name and title of the authorizing hospital administrator or designee are required to complete the diversion request process.

APPROVED: _____ _____
Director, EMS Agency Medical Director, EMS Agency

III. EMS Agency staff may perform unannounced site visits to hospitals requesting diversion to ensure compliance with these guidelines.

PROCEDURE:

A. Receiving hospitals are responsible for maintaining and updating ReddiNet diversion status to ensure that accurate information is available for patient destination decisions. Telephone communication is necessary when the ReddiNet system is not operational or when a hospital is requesting diversion due to ED BLS or internal disaster. The Medical Alert Center (MAC) shall be notified via telephone at (866) 940-4401.

B. Diversion Request Categories

1. ED Saturation (ED ALS, ED BLS, Provider ED) – ED resources (beds, equipment and/or staff are fully committed or are not sufficient to care for additional incoming ALS and/or BLS patients. The procedure for requesting diversion due to ED saturation shall be in accordance with Ref. No. 503.1, Diversion Request Requirements for Emergency Department Saturation. ED BLS Diversion requires approval by the EMS Agency Administrator On-Duty (AOD) via the Medical Alert Center.

2. Computerized Tomography (CT) Scanner – Hospital is unable to provide essential diagnostic procedures due to lack of a functioning CT scanner.

3. Trauma (trauma centers and pediatric trauma centers only) – Hospital is unable to care for additional trauma patients because the trauma team is fully committed caring for trauma patients. The rationale for a temporary diversion request shall be communicated via the ReddiNet system using the applicable reason code. Reason codes include the following:

    a. Critical Equipment Unavailable: Diversion may be requested when critical equipment essential to definitive diagnosis or treatment of trauma patients is unavailable.

    b. Operating Room (OR) Unavailable: Diversion may be requested when both the primary and the back-up ORs and staff are fully encumbered caring for trauma patients to the extent that the care of additional trauma patients may be jeopardized.

    c. Trauma Team Encumbered: Diversion may be requested when trauma resources, including the trauma surgeon, are fully encumbered to the extent that the care of additional trauma patients may be jeopardized.

    d. Other: For any other circumstances in which the trauma center may become temporarily unable to meet contractual requirements, to the extent that the care of certain trauma patients may be jeopardized, the trauma center shall contact the EMS Agency to request a waiver in advance of the diversion. If a waiver is granted, the hospital and the MAC will jointly ensure that affected base hospitals and EMS provider agencies are properly advised of the nature and extent of the waiver.

4. Pediatric Medical Center (PMC) – Diversion may be requested only when critical equipment essential to definitive diagnosis or treatment of critical medical pediatric patients is unavailable. Lack of available Pediatric Intensive Care Unit beds alone is not sufficient cause to request PMC diversion.

5. ST Elevation Myocardial Infarction (STEMI) (STEMI receiving centers only) – Diversion may be requested only when all cardiac catheterization laboratories (cath labs) are fully encumbered caring for STEMI patients, to the extent that the care of additional STEMI patients may be jeopardized. ED saturation is not sufficient cause to request SRC Diversion. The SRC may request STEMI diversion under any of the following conditions:

    a. The SRC is unable to perform emergent percutaneous coronary intervention because the cardiac cath staff is already fully committed to caring for STEMI patients in the cath lab. STEMI patients should be transported to the most accessible open SRC regardless of ED diversion status.

    b. The SRC experiences critical mechanical failure of essential cath lab equipment. SRCs must notify the EMS Agency SRC System Program Manager directly at (562) 378-1652 as to the nature of the mechanical failure or equipment issue if the anticipated diversion is expected to exceed 24 hours.

6. Stroke

    a. Primary Stroke Center (PSC): Diversion may be requested only when there is no means to perform diagnostic brain imaging – CT scan or MRI. The reason for diversion must be documented in ReddiNet. ED saturation is not sufficient cause to request PSC diversion.

    b. Comprehensive Stroke Center (CSC): Hospital is unable to care for additional stroke patients because the stroke team is fully committed caring for stroke patients. The rationale for a temporary diversion request shall be communicated via the ReddiNet system using the applicable reason code. Reason codes include the following:

        i. Critical Equipment Unavailable: Diversion may be requested when critical equipment essential to definitive diagnosis or treatment of stroke patients is unavailable.

        ii. Interventional Radiology (IR) Room Unavailable: Diversion may be requested when both the primary and back-up IRs and staff are fully encumbered caring for stroke patients to the extent that the care of additional stroke patients may be jeopardized.

        iii. Stroke Team Encumbered: Diversion may be requested when stroke resources, are fully encumbered to the extent that the car of additional stoke patients may be jeopardized.

7. Extracorporeal Cardiopulmonary Resuscitation (ECPR) – Diversion may be requested when the hospital has no means to perform ECPR due to lack of available qualified personnel, lack of critical resources or no pumps. ED saturation is not sufficient cause to request ECPR diversion. ECPR diversion does not divert patients in cardiac arrest with the exception of patients meeting ECPR criteria for whom another ECPR receiving facility is available within the 30-minute transport time.

8. Internal Disaster – Diversion of both ALS and BLS patients may be requested when a facility disruption threatens the ED or significant patient care services, to the extent that care of additional patients may be jeopardized.

    a. A hospital requesting diversion due to internal disaster must notify the MAC by telephone and provide the name of the administrator authorizing the diversion and the rational for internal disaster. Appropriate rational include:

        i. Power outage impacting patient care, which cannot be sufficiently mitigated by emergency generators

        ii. Critical infrastructure or systems failure impacting patient care, which cannot be sufficiently mitigated by emergency back-up procedures

        iii. Fire

        iv. Bomb threat/explosion

        v. Flooding

        vi. Water disruption/contamination

        vii. Hazardous materials contamination of patient care areas

        viii. Other – Must be approved by the EMS Agency through the MAC or Health Facilities Inspection Division of the Department of Public Health. **Internal Disaster does not apply to work actions.**

    b. For situations in which a hospital knows in advance that it will need to divert to internal disaster, hospital shall notify the EMS Agency in writing, well in advance of the scheduled diversion. It is the responsibility of the hospital to notify area base hospital(s) and all affected EMS provider agencies.

    c. Upon request by the EMS Agency, a hospital shall submit an after-action report within 60 days of the incident when a hospital's diversion due to internal disaster is greater than four (4) hours.

CROSS REFERENCE:

Prehospital Care Manual:

Ref. No. 502, **Patient Destination**
Ref. No. 503.1, **Diversion Request Requirements for Emergency Department Saturation**
Ref. No. 503.2, **Diversion Request Quick Reference Guide**
Ref. No. 506, **Trauma Triage**
Ref. No. 508, **Sexual Assault Patient Destination**
Ref. No. 510, **Pediatric Patient Destination**
Ref. No. 511, **Perinatal Patient Destination**
Ref. No. 512, **Burn Patient Destination**
Ref. No. 513, **ST Elevation MI Patient Destination**
Ref. No. 516, **Cardiac Arrest Patient Destination**
Ref. No. 802, **Emergency Medical Technician (EMT) Scope of Practice**
Ref. No. 803, **Los Angeles County Paramedic Scope of Practice**

Reference No. 503, Guidelines for Hospitals Requesting Diversion of ALS/BLS Patients

	Committee/Group	Date Assigned	Approval Date	Comments* (Y if yes)
EMS ADVISORY COMMITTEES	Provider Agency Advisory Committee	2/12/2025	2/12/2025	No
	Base Hospital Advisory Committee	2/5/2025	2/5/2025	Yes
OTHER COMMITTEES/RESOURCES	Medical Council	3/3/2025	3/3/2025	No
	Trauma Hospital Advisory Committee			
	Ambulance Advisory Board			
	EMS QI Committee			
	Hospital Association of So California			
	County Counsel			
	Other:			

***** See **Summary of Comments** (Attachment B)

POLICY REVIEW - SUMMARY OF COMMENTS REFERENCE NO. 202.2
(ATTACHMENT B)

REFERENCE NO. 503, Guidelines for Hospitals Requesting Diversion of ALS/BLS Patients

SECTION	COMMITTEE/DATE	COMMENT	RESPONSE
Procedure,B,7	BHAC 02/05/2025	Add “lack of critical equipment” after ‘lack of qualified personnel’	Adopted

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

(EMT, PARAMEDIC, MICN)

SUBJECT: **DIVERSION REQUEST QUICK REFERENCE GUIDE**

REFERENCE NO. 503.2

TYPE OF DIVERSION	REQUEST VIA / DURATION	RATIONALE
ED Saturation – ED ALS	Request via ReddiNet. Diversion will be for 2 hours. ReddiNet will automatically re-open hospital at the end of 2 hours	All ED treatment bays are full and 30% or greater of ED has patients are either in Resuscitative or Immediate/Emergent conditions.
ED Saturation – ED BLS	Request via telephone to the Medical Alert Center. Diversion will be up to 4 hours. ReddiNet will automatically re-open hospital at the end of 4 hours.	Implemented on a case-by-case basis during periods of extreme surge of patients (i.e., disease outbreak/ epidemic/pandemic). Hospital must have at least 3 ambulance patients (ALS/BLS) waiting for over ***60 minutes*** to transfer patient to hospital equipment.
ED Saturation – Provider ED ALS	EMS Provider must contact the Medical Alert Center. Diversion will be for 2 hours. ReddiNet will automatically re-open hospital at the end of 2 hours.	Hospital must have at least 3 ambulance patients (ALS/BLS) waiting for over ***30 minutes*** to transfer patient to hospital equipment.
Computerized Tomography (CT) Scanner	Request via ReddiNet, duration will be based on the resolution of inability to perform CT scans.	Unable to provide essential diagnostic procedures due to lack of a functioning CT scanner.
Trauma	Request via ReddiNet, duration will be based on the resolution of the rational for diversion.	Unavailable Critical Equipment or Operating Room, or Trauma Team Encumbered
Pediatric Medical Center (PMC)	Request via ReddiNet, duration will be based on the resolution of the rational for diversion.	Unavailable critical equipment that is essential to definitive diagnosis or treatment of medical pediatric patients. *Lack of available PICU beds alone is not sufficient cause to request PMC Diversion.*
ST-Elevation Myocardial Infarction (STEMI) Receiving Center (SRC)	Request via ReddiNet, Diversion will be for 3 hours. ReddiNet will automatically re-open hospital at the end of 3 hours	Cardiac Catheterization laboratories (cath labs) are fully encumbered caring for STEMI patient or mechanical failure of critical cath lab equipment.
	Hospital must notify the EMS Agency SRC System Program Manager for mechanical failure/equipment issue that is expected to exceed 24 hours.	

TYPE OF DIVERSION	REQUEST VIA / DURATION	RATIONALE
Primary Stroke Center (PSC)	Requested via ReddiNet, Diversion will be for 2 hours. Reddinet will automatically re-open hospital at the end of 2 hours.	Unable to perform diagnostic brain imaging (CT scan or MRI).
Comprehensive Stroke Center (CSC)	Requested via ReddiNet, Diversion will be for 2 hours. Reddinet will automatically re-open at the end of 2 hours.	Unavailable Critical Equipment or Interventional Radiological (IR) Room, or Stroke Team Encumbered
Extracorporeal Cardiopulmonary Resuscitation (ECPR)_	Request via ReddiNet, duration will be based on the resolution of the rational for diversion.	Unavailable critical equipment or qualified personnel to perform ECPR. *ECPR diversion does not divert patients in cardiac arrest.*
Internal Disaster	Hospital must notify the Medical Alert Center via telephone, duration will be based on resolution of the rational for internal disaster.	Power Outage Critical infrastructure or system failure impacting patient care Fire Bomb threat/explosion Flooding Water disruption/contamination HAZMAT in patient care areas *Internal Disaster does not apply to work actions.*

POLICY REVIEW – SUMMARY BY COMMITTEE ATTACHMENT A

Reference No. 503.2, Diversion Request Quick Reference Guide

	Committee/Group	Date Assigned	Approval Date	Comments* (Y if yes)
EMS ADVISORY COMMITTEES	Provider Agency Advisory Committee	2/12/2025	2/12/2025	No
	Base Hospital Advisory Committee	2/5/2025	2/5/2025	Yes
OTHER COMMITTEES/RESOURCES	Medical Council	3/3/2025	3/3/2025	No
	Trauma Hospital Advisory Committee			
	Ambulance Advisory Board			
	EMS QI Committee			
	Hospital Association of So California			
	County Counsel			
	Other:			

***** See **Summary of Comments** (Attachment B)

POLICY REVIEW - SUMMARY OF COMMENTS REFERENCE NO. 202.2
(ATTACHMENT B)

REFERENCE NO. 503.2, Diversion Request Quick Reference Guide

SECTION	COMMITTEE/DATE	COMMENT	RESPONSE
ED Saturation – ED BLS, Request Via / Duration	BHAC 02/05/2025	Change 'Diversion will be for 4 hours.' To 'Diversion will be up to 4 hours.'	Adopted
ED Saturation – ED BLS, Rationale	BHAC 02/05/2025	Change word 'crews' to 'patients'	Adopted
ED Saturation – Provider ED, Rationale	BHAC 02/05/2025	Change word 'crews' to 'patients'	Adopted

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

(PARAMEDIC, MICN)

SUBJECT: **ST-ELEVATION MYOCARDIAL INFARCTION (STEMI) PATIENT DESTINATION** REFERENCE NO. 513

PURPOSE: To ensure that 9-1-1 patients with ST-elevation myocardial infarction (STEMI) are transported to the most appropriate facility that is staffed, equipped, and prepared to administer emergency and/or definitive care appropriate to the needs of a STEMI patient.

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

DEFINITIONS:

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): A facility licensed for a cardiac catheterization laboratory and cardiovascular surgery by the Department of Public Health, Health Facilities Inspection Division, and approved by the Los Angeles County EMS Agency as a SRC.

PRINCIPLES:

1. STEMI is a clinical diagnosis that is made based on the patient's presentation and the presence of ST-elevation on the electrocardiogram (ECG). The 12-lead ECG in the prehospital care setting plays a key role in determining the most appropriate treatment and destination for patients with suspected cardiac symptoms.

2. In all cases, the health and wellbeing 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.

3. Prehospital identification and communication of STEMI can reduce critical "door-to-intervention" times for STEMI patients.

POLICY:

I. A prehospital 12-lead ECG should be performed in accordance with the Ref. No. 1308, Cardiac Monitoring/12-lead ECG Medical Control Guideline.

II. If the 12-lead ECG demonstrates STEMI (or manufacturer's equivalent) and this is consistent with the paramedic interpretation and/or the clinical presentation of the patient, transmit the 12-lead ECG directly to the receiving SRC. The provider impression is Chest Pain – STEMI (CPMI).

III. For any patient with a software interpretation of STEMI on the 12-lead ECG where the paramedic provider impression differs or is uncertain, base contact should be

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established to clarify the provider impression and to determine the destination, including whether transport to the SRC is required.

IV. In general, patients with a provider impression of Chest Pain – STEMI (CPMI), (including hypotensive patients with signs and symptoms consistent with cardiogenic shock) shall be transported to the most accessible open SRC if ground transport is 30 minutes or less regardless of service area boundaries.

V. Paramedics shall notify the receiving SRC and discuss catheterization (cath) lab activation criteria for all patients with a provider impression of Chest Pain – STEMI (CPMI), including 9-1-1 interfacility transports of patients with a STEMI 12-lead ECG from a non-SRC ED to an SRC.

VI. Provide properly labeled, at a minimum patient name and sequence number, 12-lead ECGs to the receiving facility (in either paper or electronic format) as part of the patient's prehospital medical record.

VII. Document the findings of the 12-lead ECG on the Patient Care Record.

VIII. STEMI patients should be transported to the most accessible SRC regardless of **ED Diversion** status.

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

X. If the closest SRC has requested **STEMI Diversion** (as per Ref. No. 503), STEMI patients, including STEMI patients complicated by out-of-hospital cardiac arrest (OHCA) should be transported to the **next** most accessible **open** SRC if ground transport time is less than 30 minutes.

XI. Interfacility Transfer of STEMI patients from a STEMI Referral Facility (SRF) Emergency Department to a SRC via the 9-1-1 system: SRFs are strongly encouraged to enter into interfacility transfer agreements with the most accessible SRC (See Ref. No. 320.2).

A. Patients are to be transported to the SRC as directed by the SRF physician (base hospital contact/notification guidelines apply).

B. Transport units may bypass the most accessible SRC to the prearranged receiving SRC within 30 minutes, if the EMS provider resources at the time of transport allow.

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. 513.1, **Interfacility Transport of the ST-Elevation Myocardial Infarction Patient**
Ref. No. 516, **Cardiac Arrest Patient Destination**
Ref. No. 517, **Private Provider Agency Transport/Response Guidelines**

Ref. No. 1210, **Cardiac Arrest**
Ref. No. 1211, **Cardiac Chest Pain**
Ref. No. 1212, **Cardiac Dysrhythmia** – **Bradycardia**
Ref. No. 1213, **Cardiac Dysrhythmia – Tachycardia**
Ref. No. 1303, **Cath Lab Activation Algorithm**
Ref. No. 1308, **Cardiac Monitoring/12-Lead ECG**

POLICY REVIEW – COMMITTEE ASSIGNMENT REFERENCE NO. 202.1
(ATTACHMENT A)

REFERENCE NO. 513, ST-Elevation Myocardial Infarction (STEMI) Patient Destination

	Committee/Group	Date Assigned	Approval Date	Comments* (Y if yes)
EMS ADVISORY	Base Hospital Advisory Committee	2/05/2025	2/05/2025	No
EMS ADVISORY	Provider Agency Advisory Committee	2/12/2025	2/12/2025	No
OTHER COMMITTEES / RESOURCES	Medical Council	3/04/2025	3/04/2025	No
OTHER COMMITTEES / RESOURCES	Trauma Hospital Advisory Committee			
OTHER COMMITTEES / RESOURCES	Pediatric Advisory Committee			
OTHER COMMITTEES / RESOURCES	Ambulance Advisory Board			
OTHER COMMITTEES / RESOURCES	EMS QI Committee			
OTHER COMMITTEES / RESOURCES	Hospital Association of Southern California			
OTHER COMMITTEES / RESOURCES	County Counsel			
OTHER COMMITTEES / RESOURCES	Disaster Healthcare Coalition Advisory Committee			
OTHER COMMITTEES / RESOURCES	Other:			

*****See Ref. No. 202.2, **Policy Review - Summary of Comments**

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).

Extracorporeal Cardiopulmonary Resuscitation (ECPR) Receiving Center: A licensed general acute care facility that is designated by the Los Angeles County EMS Agency as a STEMI Receiving Center, meets all the requirements listed in this policy and has been designated by the LA County EMS Agency as an ECPR receiving center.

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.

PRINCIPLES:

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.

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Director, EMS Agency Medical Director, EMS Agency

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 meet ECPR criteria, and are transported on a mechanical compression device.

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 complicated by out-of-hospital cardiac arrest, 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 who meet ALL of the following criteria should be transported to the closest ECPR Receiving Center if ground transport is 30 minutes or less regardless of service area boundaries:

A. Age ≥15 to ≤75 years old

B. Mechanical compression device (MCD) is available and the patient's body habitus can accommodate the use of the device

C. Initial shockable rhythm with refractory or recurrent ventricular fibrillation/ventricular tachycardia OR presumed massive pulmonary embolus given clinical circumstances of the arrest

D. Scene time can be limited to no more than 15 minutes (no system or patient factors that will significantly delay transport)

E. The patient does NOT: have a do-not-resuscitate order, known terminal illness, or baseline severe neurologic dysfunction.

IV. For transports to the ECPR receiving center, contact should be made directly with the receiving ECPR center as soon as possible **while en route.**

V. Patients with non-traumatic cardiac arrest who do not meet ECPR criteria shall be transported to the most accessible 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 transported on Base judgment for ECPR when the closest SRC is an ECPR receiving center

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

VI. For patients who deteriorate into out-of-hospital cardiac arrest while en route to the most assessible receiving facility (MAR), rerouting to the closest SRC should be considered when feasible based on available resources and estimated transport times.

VII. Cardiac arrest patients should be transported to the most accessible SRC (and ECPR receiving center when applicable) regardless of **ED Diversion** status.

VIII. If ground transport time to a SRC is greater than 30 minutes, the patient shall be transported to the MAR.

VI. For ECPR patients: If the closest ECPR receiving center is on ECPR diversion AND there is another ECPR center available within a 30 minute transport, consideration should be made to route to the next open ECPR center <u>if total time from cardiac arrest to that ECPR center is less than 60 minutes</u>. If no open ECPR center is reachable within these time intervals, the patient shall be transported to the closest SRC regardless of ECPR status.

VII. If the closest SRC has requested **STEMI Diversion** (as per Ref. No. 503), cardiac arrest patients <u>with</u> STEMI should be transported to the **next** most accessible **open** SRC if ground transport time is less than 30 minutes, otherwise transport will continue to the closest SRC. Cardiac arrest patients <u>without</u> STEMI should be routed to the closest SRC regardless of ED or STEMI Diversion status.

CROSS REFERENCE:

<u>Prehospital Care Manual:</u>

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**

Reference No. 516, Cardiac Arrest (Non-Traumatic) Patient Destination

	Committee/Group	Date Assigned	Approval Date	Comments* (Y if yes)
EMS ADVISORY COMMITTEES	Provider Agency Advisory Committee	2/12/2025	2/12/2025	No
	Base Hospital Advisory Committee	2/5/2025	2/5/2025	No
OTHER COMMITTEES/RESOURCES	Medical Council	3/3/2025	3/3/2025	No
	Trauma Hospital Advisory Committee			
	Ambulance Advisory Board			
	EMS QI Committee			
	Hospital Association of So California			
	County Counsel			
	Other:			

***** See **Summary of Comments** (Attachment B)

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

(EMT/ PARAMEDIC/MICN)

SUBJECT: **DETERMINATION / PRONOUNCEMENT OF DEATH IN THE FIELD**

REFERENCE NO. 814

PURPOSE: This policy is intended to provide EMS personnel with parameters to determine whether or not to withhold resuscitative efforts in accordance with the patient's wishes, and to provide guidelines for base hospital physicians to discontinue resuscitative efforts and pronounce death.

AUTHORITY: California Health and Safety Code, Division 2.5
California Probate Code, Division 4.7
California Family Code, Section 297-297.5
California Health and Safety Code, Division 1, Part 1.8, Section 443 et seq.

DEFINITIONS:

Advance Health Care Directive (AHCD): A written document that allows patients who are unable to speak for themselves to provide health care instructions and/or appoint a Power-of-Attorney for Health Care. There is no one standard format for an AHCD. Examples of AHCDs include:

- Durable Power of Attorney for Healthcare (DPAHC)
- Healthcare proxies
- Living wills (valid in California if dated prior to 7-1-2000; advisory but not legally binding after that date)

Agent: An individual, eighteen years of age or older, designated in a durable power of attorney for health care to make health care decisions for the patient, also known as "attorney-in-fact".

Aid-in-Dying Drug: A drug determined and prescribed by a physician for a qualified individual, which the qualified individual may choose to self-administer to bring about his or her death due to terminal illness. The prescribed drug may take effect within minutes to several days after self-administration.

Conservator: Court-appointed authority to make health care decisions for a patient.

Determination of Death: To conclude that a patient has died by conducting an assessment to confirm the absence of respiratory, cardiac, and neurologic function.

End of Life Option Act: This California state law authorizes an adult, eighteen years or older, who meets certain qualifications, and who has been determined by his or her attending physician to be suffering from a terminal disease to make a request for an "aid-in-dying drug" prescribed for the purpose of ending his or her life in a humane and dignified manner.

Immediate Family: The spouse, domestic partner, parent, adult children, adult sibling(s), or family member intimately involved in the care of the patient.

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Organized ECG Activity: A sinus, atrial or junctional (supraventricular) rhythm.

Pronouncement of Death: A formal declaration by a base hospital physician that life has ceased.

Standardized Patient-Designated Directives: Forms or medallions that recognize and accommodate a patient's wish to limit prehospital treatment at home, in long term care facilities, or during transport between facilities. Examples include:

- Statewide Emergency Medical Services Authority (EMSA)/California Medical Association (CMA) Prehospital DNR Form (Ref. No. 815.1)
- Physician Orders for Life-Sustaining Treatment (POLST, Ref. No. 815.2)
- State EMS Authority-approved DNR Medallion

PRINCIPLES:

1. Resuscitative efforts are of no benefit to patients whose physical condition precludes any possibility of successful resuscitation.

2. EMTs and paramedics may **determine** death based on specific criteria set forth in this policy.

3. Base hospital physicians may **pronounce** death based on information provided by the paramedics in the field and guidelines set forth in this policy.

4. If there is any objection or disagreement by family members or EMS personnel regarding terminating or withholding resuscitation, basic life support (BLS) resuscitation, including defibrillation, may continue or begin immediately and paramedics should contact the base hospital for further directions.

5. Aggressive resuscitation in the field to obtain the return of spontaneous circulation (ROSC) is encouraged. Transporting patients without ROSC is discouraged with the exception of patients who meet ECPR criteria and are transported on a mechanical compression device.

6. EMS personnel should honor valid do-not-resuscitate (DNR) orders and other patient designated end-of-life directives in the field and act in accordance with the patient's wishes when death appears imminent.

POLICY:

I. EMS personnel may determine death in the following circumstances:

   A. In addition to the absence of respiration, cardiac activity, and neurologic reflexes, one or more of the following physical or circumstantial conditions exist:

      1. Decapitation

      2. Massive crush injury

      3. Penetrating or blunt injury with evisceration of the heart, lung or brain

4. Decomposition

5. Incineration

6. Pulseless, non-breathing victims with extrication time greater than fifteen minutes, where no resuscitative measures can be performed prior to extrication.

7. Penetrating trauma patients who, based on the paramedic's thorough assessment, are found apneic, pulseless, asystolic, and without pupillary reflexes upon the arrival of EMS personnel at the scene.

8. Blunt trauma patients who, based on a paramedic's thorough patient assessment, are found apneic, pulseless, and without organized ECG activity (sinus, atrial or junctional rhythm) due to traumatic mechanism upon the arrival of EMS personnel at the scene.

    a. For patients with shockable ventricular rhythm, defibrillate as per TP 1243/1243-P in attempt to restore organized ECG activity prior to determination of death.

9. Pulseless, non-breathing victims of a multiple victim incident where insufficient medical resources preclude initiating resuscitative measures.

10. Drowning victims, when it is reasonably determined that submersion has been greater than one hour.

11. Rigor mortis (requires assessment as described in Section I, B.)

12. Post-mortem lividity (requires assessment as described in Section I, B.)

B. If the initial assessment reveals rigor mortis and/or post-mortem lividity only, EMTs and/or paramedics shall perform the following assessments (may be performed concurrently) to confirm the absence of respiratory, cardiac, and neurologic function for determination of death in the field:

1. Assessment of respiratory status:

    a. Assure that the patient has an open airway.

    b. Look, listen and feel for respirations. Auscultate the lungs for a minimum of 30 seconds to confirm apnea.

2. Assessment of cardiac status:

    a. Auscultate the apical pulse for a minimum of 60 seconds to confirm the absence of heart sounds.

    b. Adults and children: Palpate the carotid pulse for a minimum of 60 seconds to confirm the absence of a pulse.

c. Infants: Palpate the brachial pulse for a minimum of 60 seconds to confirm the absence of a pulse.

3. Assessment of neurological reflexes:

a. Check for pupillary response with a penlight or flashlight to determine if pupils are fixed and dilated.

b. Check and confirm unresponsive to pain stimuli.

C. Patients in atraumatic cardiopulmonary arrest who do not meet the conditions described in Section I. A. require immediate BLS measures to be initiated. If one or more of the following conditions is met, resuscitation may be discontinued and the patient is determined to be dead:

1. A valid standardized patient-designated directive indicating DNR.

2. A valid AHCD with written DNR instructions or the agent identified in the AHCD requesting no resuscitation.

3. Immediate family member present at scene:

a. With a patient-designated directive on scene requesting no resuscitation

b. Without said documents at scene, with full agreement of immediate family requesting no resuscitation, and EMS providers concur

4. Parent or legal guardian is required and must be present at scene to withhold or terminate resuscitation for patients less than 18 years of age.

II. Patients in atraumatic cardiopulmonary arrest who do not meet the conditions described in Section I require immediate cardiopulmonary resuscitation in accordance with Ref. No. 1210, Treatment Protocol: Cardiac Arrest. Base contact for medical direction shall be established when indicated by Ref. No. 1210.

A. EMS Personnel may determine death if a patient is in **asystole** after 20 minutes of quality cardiopulmonary resuscitation on scene and meets ALL of the following criteria:

1. Patient 18 years or greater

2. Arrest not witnessed by EMS personnel

3. No shockable rhythm identified at any time during the resuscitation

4. No ROSC at any time during the resuscitation

5. No hypothermia

B. Base Physician consultation for pronouncement is not required if Section A is met.

C. Base Physician contact shall be established to guide resuscitation and to make decisions regarding timing of transport, if transport is indicated, for patients in cardiopulmonary arrest who do not meet the conditions described in Section I or IIA of this policy. ECPR candidates are transported prior to Base Contact.

D. In the event that immediate family members on scene request termination of resuscitation after resuscitation is in progress, and the patient does not meet criteria in section IIA, base physician consultation shall be made for termination and pronouncement. This does not apply to brief initiation of CPR while establishing patient/family wishes as per I.C.3.

III. Physician guidelines for transport versus termination

A. Resuscitation should be continued on-scene until one of the following:

1. ROSC is confirmed with a palpable pulse and corresponding rise in $EtCO_2$ Paramedics should stabilize the patient on scene after ROSC (for approximately 5 minutes) per TP 1210 and initiate transport once ROSC is maintained.

2. The patient is determined to be an ECPR candidate and has not achieved ROSC despite initial on scene resuscitation (scene time limited to ≤15 minutes prior to transport).

3. Base physician determines further resuscitative efforts are futile

B. Patients who have NOT maintained ROSC after on-scene resuscitation and stabilization should NOT be transported unless the Base physician determines transport is indicated and/or the patient meets ECPR criteria.

1. Early transport for patients with ongoing resuscitation is NOT advised.

2. The decision to transport a patient with refractory OHCA should be based on the availability of therapies at the receiving center that are not available on scene.

IV. Crime Scene Responsibility, Including Presumed Accidental Deaths and Suspected Suicides

A. Responsibility for medical management rests with the most medically qualified person on scene.

B. Authority for crime scene management shall be vested in law enforcement. To access the patient, it may be necessary to ask law enforcement officers for assistance to create a “safe path” that minimizes scene contamination.

C. If law enforcement is not on scene, EMS personnel should attempt to create a "safe path" and secure the scene until law enforcement arrives.

V. Procedures Following Pronouncement of Death

A. The deceased should not be moved without the coroner's authorization. Any invasive equipment (i.e., intravenous line, endotracheal tube) used on the patient should be left in place.

NOTE: If it is necessary to move the deceased because the scene is unsafe, the body is creating a hazard, or the body is at risk of loss through fire or flood, the EMS personnel may relocate the deceased to a safer location, or transport to the most accessible receiving facility.

B. If law enforcement or the coroner confirms that the deceased will not be a coroner's case and the personal physician is going to sign the death certificate, any invasive equipment used during the resuscitation may be removed.

C. EMS personnel should remain on scene until law enforcement arrives. During this time, when appropriate, the provider should provide grief support to family members.

VI. Required Documentation for Patients Determined Dead/Pronounced in the Field

A. The time and criteria utilized to determine death; the condition, location and position of the body, and any care provided.

B. The location and the rationale if the deceased was moved. If the coroner authorized movement of the deceased, document the coroner's case number (if available) and the coroner's representative who authorized the movement.

C. Time of pronouncement and name of the pronouncing physician if base hospital contact was initiated

D. The name of the agent identified in the AHCD or patient-designated directive or the name of the immediate family member who made the decision to withhold or withdraw resuscitative measures. Obtain their signature on the EMS Report Form.

E. If the deceased is **not** a coroner's case and their personal physician is going to sign the death certificate:

1. Document the name of the coroner's representative who authorized release of the patient, and

2. The name of the patient's personal physician signing the death certificate, and

3. Any invasive equipment removed

VII. End of Life Option Act

A. Resuscitation shall be withheld on patients in cardiopulmonary arrest who have

self-administered an aid-in-dying drug (see Ref. No. 815.4, End of Life Option Field Quick Reference Guide).

B. Document the presence of a Final Attestation and attach a copy if available.

CROSS REFERENCE:

Prehospital Care Manual:
Ref. No. 516, **Cardiac Arrest (Non-Traumatic) Patient Destination**
Ref. No. 518, **Decompression Emergencies/Patient Destination**
Ref. No. 519, **Management of Multiple Casualty Incidents**
Ref. No. 606, **Documentation of Prehospital Care**
Ref. No. 815, **Honoring Prehospital Do Not Resuscitate Orders**
Ref. No. 815.1, **EMSA/CMA Prehospital Do Not Resuscitate (DNR) Form**
Ref. No. 815.2, **Physician Orders for Life-Sustaining Treatment (POLST) Form**
Ref. No. 815.3, **Sample - Final Attestation For An Aid-In-Dying Drug to End My Life in a Humane and Dignified Manner**
Ref. No. 815.4, **End of Life Option Field Quick Reference Guide**
Ref. No. 819, **Organ Donor Identification**

Reference No. 814, Determination/Pronouncement of Death in Field

	Committee/Group	Date Assigned	Approval Date	Comments* (Y if yes)
EMS ADVISORY COMMITTEES	Provider Agency Advisory Committee	4/16/25	4/16/2025	No
	Base Hospital Advisory Committee	4/9/2025	4/9/2025	No
OTHER COMMITTEES/RESOURCES	Medical Council	3/4/2025	3/4/2025	No
	Trauma Hospital Advisory Committee			
	Ambulance Advisory Board			
	EMS QI Committee			
	Hospital Association of So California			
	County Counsel			
	Other:			

***** See **Summary of Comments** (Attachment B)

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

SUBJECT: **EMS PILOT AND SCIENTIFIC STUDIES** REFERENCE NO. 830

PURPOSE: To provide a uniform procedure for acquiring authorization to conduct a pilot or a scientific study to perform additional prehospital treatment procedures or administer additional drugs not currently scope of practice.

AUTHORITY: Health & Safety Code, Division 2.5, Sections 1797.221, 24170-24179.5
California Code of Regulations, Title 22, Division 9, Chapter 43.3, Article 2, Section 100091.02
Federal Policy for the Protection of Human Subjects, DHHS Regulations 45 CRF 46, FDA Regulations-CRF Title 21

DEFINITION:

Pilot or Scientific Study: For the purposes of this policy, a pilot or scientific study is an evaluation of an intervention (i.e., medication, device, protocol, or other treatment) that is prospectively tested in a study population. Testing may include the introduction or withholding of the proposed intervention.

Investigator(s): The individual or team of individuals that is leading the pilot or scientific study.

Institutional Review Board: The Institutional Review Board (IRB) is a committee responsible for reviewing and approving all human subjects research to ensure the welfare of the participants is protected.

PRINCIPLES:

1. All pilot or scientific studies must be submitted for review and approval by the EMS Agency Medical Director or designee prior to implementation.

2. The EMS Agency Medical Director may approve or conduct a pilot or scientific study evaluating the safety, feasibility, and/or efficacy of the prehospital medication, device, protocol, or other treatment within the local EMS system involving EMTs and/or paramedics. The study shall be consistent with any requirements established by the California EMS Authority for pilot or scientific studies conducted within the prehospital emergency medical care system, and, where applicable, with the California Health and Safety Code, Division 104, Part 5, Chapter 6, Article 5, Section 111550-111610.

3. No medication, device, protocol, or other treatment that is specifically excluded by the California EMS Authority from use in the EMS system shall be included in a pilot or scientific study without the approval of the EMS Agency Medical Director and the California EMS Authority.

4. Any pilot or scientific study using data or information under the authority of, or maintained and managed by, the EMS Agency must be approved by the EMS Agency Director and Medical Director prior to implementation.

APPROVED: _____ _____
Director, EMS Agency Medical Director, EMS Agency

5. When applicable, IRB approval will be required prior to implementation of a pilot or scientific study at the discretion of the EMS Agency Medical Director.

6. Requests for implementation of procedures and/or medications currently approved for local additional scope or optional use within Los Angeles County are not subject to this policy. Such requests will be processed as identified per Los Angeles County Scope of Practice policies (Ref. No. 802 and 803) and applicable approved unit inventory policies.

POLICY:

I. An investigator shall include the following information in a pilot or scientific study proposal submitted to the EMS Agency Medical Director:

   A. Background material on the proposed intervention (i.e., relevant studies or other medical literature).

   B. Statement of the pilot or study objective(s).

   C. Proposed timeline and duration for the pilot or scientific study.

   D. Description of the proposed intervention including medical conditions for which it will be used and the patient population that may benefit.

   E. Description of the proposed pilot or scientific study design and the method for evaluating the effectiveness and the safety of the intervention.

   F. Description of the data collection process.

   G. Description of specific and measurable outcome(s) to evaluate safety, feasibility, and/or efficacy of the intervention.

   H. Plan for quarterly reports that detail the descriptive characteristics and outcomes (safety and effectiveness) that will be collected and reported.

   I. Recommended policies and procedures to be instituted by the EMS Agency regarding the use and medical control of the intervention used, if necessary.

   J. A description of the training and competency testing required to implement the study. The pilot or scientific study should have a primary instructor who is knowledgeable, skilled and current in the subject matter relevant to the educational material for the proposed pilot or scientific study.

   K. Statement of ~~costs~~ anticipated risks and potential benefits to patient and/or EMS personnel.

   L. Statement of legal authority for the use of the proposed intervention.

   M. Letters from provider agencies participating in the pilot or scientific study indicating their willingness to participate.

   N. Letters from partner entities indicating willingness to participate, when applicable. Review by participating entities local IRB may also be required in some cases.

   O. IRB approval when applicable. If there is intent to publish the pilot or scientific

study results, an approved IRB is required. In addition, an IRB may be required based on the proposed study design and estimated risk to the patient or EMS personnel.

II. An investigator shall also submit a data use request if there is intent to use data that are maintained or managed by the EMS Agency as part of the pilot or scientific study (Refer to Ref. Nos. 622, 622.1 through 622.5).

III. An investigator shall adhere to the following stipulations after submission:

A. Allow up to 14 business days after proposal submission to receive notification from the EMS Agency of receipt of the proposal.

B. Provide any missing required information and resubmit study proposal revisions as requested by the EMS Agency Medical Director.

C. Allow up to 45 business days after EMS Agency receipt of a complete proposal to receive notification of approval or denial. Expect up to a total of 60 business days between complete study proposal submission and the EMS Agency approval/denial notification.

D. Refrain from commencing any pilot or scientific study activities (including training) until approval has been granted by the EMS Agency.

IV. An investigator shall adhere to the following requirements if pilot or scientific study approval is granted:

A. In collaboration with the EMS Agency, notify all hospitals, EMS provider agencies, and appropriate private entities or political jurisdictions involved or affected by the study.

B. Conduct training sessions for those involved in the study including all hospitals, EMS provider agencies, and personnel as applicable.

C. Submit quarterly reports, within 30 days of the end of the quarter, to the EMS Agency Medical Director on the progress of the study, number of patients enrolled/treated, descriptive characteristics, and safety and effectiveness outcomes with appropriate interim analysis when applicable.

D. Share pilot or scientific study reports with the Medical Advisory Council when requested.

E. Immediately inform the EMS Agency Medical Director of any unanticipated adverse events or departure from the protocol, including discontinuation of the study, prior to its completion.

F. Provide the final report to the EMS Agency at the conclusion of the study (and interim as determined by the EMS Agency Medical Director during the approval process) based on the agreed upon data analysis plan and target outcomes.

V. The EMS Agency responsibilities are the following:

A. Notify the study proposer within 14 business days of receiving the request for pilot or scientific study that it was received and if necessary, request any missing information.

B. Involve the Medical Advisory Council; Innovation, Technology, and Advancement Committee (ITAC); or any other relevant Specialty Care Center Advisory Committee to assist with the evaluation and approval of the proposed study, if warranted.

C. Notify the investigator within forty-five (45) days from receipt of the complete proposal of approval or denial of the proposed pilot or scientific study, or for the need for approval by the California EMS Authority.

D. In cases where California EMS Authority approval is required, including for pilots or scientific studies where Local Optional Scope of Practice approval is required, the EMS Agency will work with the investigator to submit the pilot or scientific study proposal to the California EMS Authority for approval. Study investigators are responsible for preparing the necessary materials for submission to the California EMS Authority. The EMS Agency will further:

    a. Assist with submission of a request for Local Optional Scope of Practice, when applicable.

    b. Notify the investigator of approval or disapproval of the pilot or scientific study by the California EMS Authority.

    c. Submit the investigator's written study conclusions or progress report to the California EMS Commission (EMSC) within 18 months of the initiation of the pilot or scientific study intervention. The conclusion or progress report should include, at a minimum, the study objective(s), number of patients studied, beneficial effects, adverse reactions or complications, appropriate statistical evaluation, and general conclusions. If the trial or scientific study is extended beyond the initially-approved time frame, submit a final report to the California EMSC.

E. Discontinue a pilot or scientific study for safety or other concerns at any time at the EMS Agency Medical Director's discretion.

F. Provide a written conclusion based on the results of the pilot or scientific study, which will include one of the following:

    1. Implementation: Suitable for systemwide implementation as directed by the EMS Agency Medical Director

    2. Optional Use: EMS provider agencies maintain responsibility for education, training, and oversight of product/procedure/innovation use

    3. Pilot: Require that an EMS provider agency continue a specified pilot period and continue to submit pilot data to the EMS Agency on a quarterly basis

    4. Insufficient Data: There is insufficient data to support continuation of the study. Discontinuation of the study indefinitely. This conclusion may change with introduction of new/additional evidence.

CROSS REFERENCE:

Prehospital Care Manual:
Ref. No. 204, **Medical Advisory Council**
Ref. No. 205, **Innovation, Technology, and Advancement Committee (ITAC)**
Ref. No. 622, **Release of EMS Data**
Ref. No. 622.1, **Data Request and Levels of Support**
Ref. No. 622.2, **Limited Data Set Information**
Ref. No. 622.3, **Intended Use of Limited Data Set Information**
Ref. No. 622.4, **Data Use Agreement**
Ref. No. 622.5, **Confidentiality Agreement**
Ref. No. 802, **Emergency Medical Technician (EMT) Scope of Practice**
Ref. No. 803, **Los Angeles County Paramedic Scope of Practice**

Reference No. 830, EMS Pilot and Scientific Studies

	Committee/Group	Date Assigned	Approval Date	Comments* (Y if yes)
EMS ADVISORY COMMITTEES	Provider Agency Advisory Committee	2/12/2025	2/12/2025	Yes
	Base Hospital Advisory Committee	2/5/2025	2/5/2025	No
OTHER COMMITTEES/RESOURCES	Medical Council	3/3/2025	3/3/2025	No
	Trauma Hospital Advisory Committee			
	Ambulance Advisory Board			
	EMS QI Committee			
	Hospital Association of So California			
	County Counsel			
	Other:			

***** See **Summary of Comments** (Attachment B)

POLICY REVIEW - SUMMARY OF COMMENTS REFERENCE NO. 202.2
(ATTACHMENT B)

REFERENCE NO. 830, EMS Pilot and Scientific Studies

SECTION	COMMITTEE/DATE	COMMENT	RESPONSE
Principles, 2	PAAC 02/12/2025	Concerns regarding the term EMS Clinicians.	Changed wording to EMT's and/or paramedics

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

DRAFT

(EMT/PARAMEDIC/MICN)

SUBJECT: **PATIENT REFUSAL OF TREATMENT/TRANSPORT AND TREAT AND RELEASE AT SCENE**

REFERENCE NO. 834

PURPOSE: To provide guidelines for EMS personnel to determine which patients who do not wish to be transported to the hospital have decision-making capacity to refuse EMS treatment and/or transport, and to identify those who may be safely released at scene.

AUTHORITY: California Health and Safety Code, Division 2.5, Sections 1797.220, 1798, (a). California Welfare and Institution Code, Sections 305, 625, 5150, and 5170. Title 22, California Code of Regulations, Section 100096.02.

DEFINITIONS:

Adult: A person at least eighteen years of age.

Against Medical Advice (AMA): A patient or a legal representative of a patient who has decision-making capacity and who refuses treatment and/or transport for **an emergency medical condition** as advised by EMS providers, physician on scene, and/or Base personnel.

Assess, Treat, and Release: A patient who does not desire transport to the emergency department for evaluation and after an assessment and/or treatment by EMS personnel, **does not** have an ongoing emergent medical condition, a high-risk presentation, or social risk factors and is released at scene to follow-up with the patient's regular healthcare provider or a doctor's office or clinic.

Authorized Advanced Health Care Provider: An EMS physician authorized to direct EMS care on the scene or via telemedicine as per Ref. 816 – Physician at the Scene, or an advanced practiced provider who is identified by the EMS Provider Agency Medical Director to provide medical direction via telemedicine as approved by the EMS Agency Medical Director.

Decision-Making Capacity: The ability to understand the nature and consequences of proposed health care. This includes understanding the significant risks and benefits and having the ability to make and communicate a decision regarding the proposed health care in the patient's primary language, if feasible. A person has decision-making capacity if they are able to:

- Communicate the need for treatment, the implications of receiving and of not receiving treatment, and alternative forms of treatment that are available, and
- Relate the above information to their personal values, and then make and convey a decision.

The lack of decision-making capacity may be:

- Temporarily lost (e.g., due to unconsciousness, influence of mind-altering substances, mental illness, or cognitive impairment)
- Permanently lost (e.g., due to irreversible coma, persistent vegetative state,

APPROVED: _____ _____

Director, EMS Agency | Medical Director, EMS Agency

untreatable brain injury, or dementia)
- Never existed (e.g., due to profound neurodevelopmental disorder, those who are deemed by the Court as incompetent or a person under conservatorship)

Emancipated Minor: A person under the age of 18 years is an emancipated minor if any of the following conditions are met:
- Married or previously married
- Currently or previously in a valid domestic partnership
- On active military duty
- The person has received a declaration of emancipation pursuant to Section 7122 of the California Family Code, which includes all of the following: at least fourteen (14) years of age, living separate and apart from their parents and managing their own financial affairs (may be verified by DMV Identification Card)

Emergency Medical Condition: A condition or situation in which a medical illness is suspected in a patient and there is an immediate need for medical attention. Patients with any abnormal vital signs: heart rate and rhythm, respiratory rate, blood pressure (except for isolated asymptomatic hypertension), oxygen saturation, and temperature (Ref. 1380 – Medical Control Guideline Vital Signs); and/or those who meet any criteria for Base Contact (Ref. 1200.2 – Base Contact Requirements) are considered to have an emergency medical condition.

High Risk Presentation: Features by history or presentation that are likely to be high risk for complications, progression of disease, underlying serious illness or injury, or require Base Contact. High risk chief complaints include chest pain, abdominal pain, pregnancy, gastrointestinal bleeding, syncope, neurologic symptoms (e.g., dizziness/vertigo, weakness, visual changes), and altered mental status. High risk features include:

- Patients less than 12 months of age
- Patients older than 70 years of age
- Patients with complicating comorbidities (i.e., active underlying cardiac, respiratory, kidney, liver, oncologic (cancer) or neurologic disease, or who are immunocompromised (e.g., history of HIV, chemotherapy, transplantation))

Implied Consent: This is a type of consent involving the presumption that an unconscious or a person lacking decision-making capacity would consent to lifesaving care. This shall include minors with an emergency medical condition when a parent or legal representative is not available.

Lift Assist: EMS is dispatched to a scene to assist with transfer of a patient to a bed or wheelchair.

LPS-Evaluator: An individual that is authorized under CA WIC *§* 5150 et seq. to evaluate and place a patient on a 5150/5585 written hold application, such as all law enforcement (LE) personnel and clinicians who are LPS-authorized by the County Department of Mental Health. Examples include, Psychiatric Emergency Team (PET), Psychiatric Mobile Response Team (PMRT), Mental Evaluation Team (MET), Systemwide Mental Assessment Response Teams (SMART), or others. LPS refers to “Lanterman-Petris-Short”, the names of the original state legislators who authored CA WIC *§* 5150 et seq.

Medical Home: A team-based health care delivery model, which is led by a health care provider (i.e., primary care physician) to provide continuous, coordinated, and comprehensive medical care.

Minor: A person less than eighteen years of age.

Minor Not Requiring Parental Consent is a person who:

- Is 12 years or older and in need of care for a reportable medical condition or substance abuse
- Is pregnant and requires care related to the pregnancy
- Is in immediate danger of suspected physical or sexual abuse
- Is an emancipated minor

No Contact / No Patient: EMS is dispatched to a scene and is either cancelled prior to arriving at scene or no patient is found.

Patient: A person who seeks or appears to require medical assessment and/or medical treatment (Ref. 606, Documentation of Prehospital Care)

Person Contact / No Patient: EMS is dispatched to a scene and a person is identified as a potential patient, is alert and appropriate for situation and declines assessment by EMS.

Psychiatric Hold (5150 / 5585): Refers to California Welfare and Institutions Code (WIC) *§* 5150 et seq. which defines the legal standard for involuntary detainment and evaluation of a person who, as a result of a mental health disorder, is a danger to others, or to themselves, or gravely disabled. “5150” refers to the code for adult patients, “5585” refers to the code for minors (under age 18). This is a written application by an authorized LPS-evaluator certified by the County to place an individual on a psychiatric hold. An authorized LPS-evaluator must provide the written application (“psychiatric hold” document) which must accompany the patient to the facility where they are transported.

Public Assist: EMS is dispatched to a scene for assistance for nonmedical issues involving a person.

Social Risk Factors: Persons experiencing homelessness, patients in congregate living, and those who are a resident of skilled nursing facilities.

Treatment in Place: A patient who, after an assessment and treatment by EMS personnel and medical clearance by an authorized advanced healthcare provider (e.g., physician, nurse practitioner, physician assistant) on scene (Ref. 816 Physician at the Scene) or via Telemedicine, does not require ambulance transport to an emergency department. Appropriate follow-up should be arranged by the authorized advanced healthcare provider on scene or via Telemedicine.

PRINCIPLES:

1. An adult or emancipated minor who has decision-making capacity has the right to determine the course of their medical care including the refusal of care. These patients must be advised of the risks and consequences resulting from refusal of medical care. A patient less than eighteen (18) years of age, with the exception of minors not requiring parental consent, mush have a parent or legal representative to refuse evaluation, treatment, and/or transport for an emergency medical condition.

2. A patient determined by EMS personnel or the base hospital to lack decision-making capacity may not refuse care AMA or be released at scene. Mental illness, drugs,

alcohol, or physical/mental impairment may impair a patient's decision-making capacity but are not sufficient to eliminate decision-making capacity.

3. Patients who have attempted suicide, or who have expressed a method, a plan, or intent to commit suicide (*MCG 1306*), should receive an evaluation by an LPS-evaluator for a psychiatric hold. LPS evaluator determination is the legal authority for placement or non-placement of a psychiatric hold (5150 / 5585).

4. A patient on a psychiatric hold may not be released at scene and cannot sign-out AMA. The patient can refuse any medical treatment as long as it is not an imminent threat to life or limb.

5. At no time are EMS personnel to put themselves in danger by attempting to treat and/or transport a patient who refuses care.

6. Patients for whom 9-1-1 is called but are not transported represent a potentially high-risk group and provider agencies should/shall have quality review programs specific to this patient population.

POLICY:

I. Adult With Decision-Making Capacity or Minor (Not Requiring Parental Consent) Refusing Transport Against Medical Advice

A. EMS personnel shall advise the patient of the risks and consequences which may result from refusal of treatment and/or transport. The patient should be advised to seek immediate medical care.

B. Base contact should be made prior to the patient leaving the scene for patients who would otherwise meet Base Contact criteria (Ref. 1200.2 – Base Contact Requirements) in order for Base personnel to have the opportunity to interview the patient and to evaluate the appropriateness of the AMA. If the patient elopes from the scene, EMS personnel are not required to make Base Contact.

C. EMS personnel shall relay all the circumstances to the Base including assessment and care rendered, reasons for refusal, and the patient's plan for transportation and follow-up care.

D. EMS personnel shall make Base Contact prior to releasing a child at the scene with a parent or caregiver for all pediatric patients less than or equal to 12 months of age .

E. EMS personnel shall have the patient or their legal representative, as appropriate, sign the release (AMA) section of the Patient Care Record (EMS Report Form/Electronic Patient Care Record/ePCR). The signature shall be witnessed, preferably by a family member.

F. A patient's refusal to sign the AMA section should be documented on the Patient Care Record.

II. Individual Lacking Decision-Making Capacity or a Minor (Requiring Parental Consent)

A. The patient should be transported to an appropriate receiving facility under implied consent. A psychiatric hold is not required.

B. If EMS personnel or the base hospital determines it is necessary to transport the patient against their will and the patient resists, or the EMS personnel believe the patient will resist, assistance from law enforcement should be requested in transporting the patient. Law enforcement may consider the placement of a psychiatric hold on the patient but this is not required for transport.

C. Law enforcement should be involved whenever EMS personnel believe a parent or other legal representative of the patient is acting unreasonably in refusing immediate care and/or transport.

III. Patients Assessed, Treated, and Released

A. EMS personnel shall assess the patient for an ongoing emergency medical condition, high risk presentations, social risk factors, and assess that the patient or their legal representative has the capacity to decline transport.

B. Patients with an ongoing emergency medical condition, high risk presentation or social risk factors who do not desire transport to the emergency department shall be handled as refusing transport against medical advice (refer to Policy Section I).

C. Patients or the legal representatives of patients who contact EMS for minor complaints in order to have an assessment performed and determination made of the seriousness of the complaint and need for treatment, but later *decline transport* qualify to be assessed, treated, and released.

1. In such cases, the EMS personnel should perform an assessment including vital signs, and after the patient or patient's legal representative's states they do not wish transport, the patient may be assessed, treated, and released at the scene.

2. Patients should be instructed by EMS to follow-up with the patient's medical home or primary care physician. The advice given should be documented on the Patient Care Record. The following statement is recommended: "After our assessment, you feel that you do not wish to be transported and you do not require immediate care in the emergency department. You should seek care with your regular healthcare provider or a doctor's office or clinic within 24 hours. If you have worsening or persistent symptoms or change your mind and desire transport, recontact 9-1-1."

D. EMS personnel should not require patients who are Assessed, Treated and Released at scene to sign the release (AMA) section of the Patient Care Record, as this implies that the patient is at significant risk by not utilizing the EMS system for treatment and/or transportation.

E. If subsequent to further assessment and discussion, the patient or the patient's legal representative desires transport, EMS personnel should transport the patient to the hospital per destination policies.

IV. Documentation

A. Public Assist and Person Contact/No Patient does not require completion of a Patient Care Record. Documentation should follow the EMS provider agency's operational policy.

B. A Patient Care Record must be completed for each patient or contact encounter (i.e., Lift Assist, AMA, Assess, Treat and Release, and Treatment in Place), including those refusing emergency medical evaluation, care and/or transportation against medical advice and those released at scene. EMS personnel shall ensure that documentation is in compliance with Ref. 606 – Documentation of Prehospital Care. Patient Care Record documentation should include:

1. AMA:

a. Patient history and assessment, including findings of an emergency medical condition or requirement to make Base Contact

b. Assessment by EMS that the patient or legal representative is alert and has the decision-making capacity to refuse EMS assessment

c. What the patient is refusing (i.e., medical care, transport) and reason for refusal

d. Risk and consequences of refusing care and/or transport, benefits of transport, and alternatives as explained to the patient or legal representative

e. Statement that the patient understands and verbalizes the risks and consequences of refusing care and/or transport

f. Signature of patient or legal representative

g. Patient's plan for follow-up care

h. Contact with Base Hospital, as applicable

i. For Minors, the relationship of the person(s) to whom the patient is being released

2. Assess, Treat and Release:

a. Patient history and assessment, including absence of findings of an emergency medical condition

b. Assessment by EMS that the patient or legal representative is alert and has the capacity to make collaborative decision making with EMS to accept on-scene treatment, understand the need to

have capacity for appropriate follow-up, but decline transport

c. Discussion with patient including risks of non-transport, benefits of transport, and alternatives

d. Plan for follow-up care including when to recall 9-1-1, seek emergency department care or follow-up with their medical home

e. If Base contact was made (when applicable)

f. For Minors, the relationship of the person(s) to whom the patient is being released

3. Treatment in Place:

a. Document as per Assess, Treat, and Release and also include the name of the authorized advanced health care provider

V. Quality Improvement

A. Each Provider Agency shall have a quality improvement program for patients who are not transported to the ED. The quality improvement program should include but may not be limited to the following:

1. Monitor data on the frequency, percent, and type of nontransports.

2. Establish a process for review of patient care records on a percentage of nontransports to include assessment of impact on the patient's outcome, and education/training provided as indicated by this review.

3. Develop a process for evaluating rate of repeat call to 9-1-1 or "rekindles".

B. Base Hospital shall incorporate patients released at the scene into their Quality Improvement Program (Ref. 304 – Paramedic Base Hospital Standards). The quality improvement program may include but not limited to the following:

1. Review of select number of Base Hospital contacts for AMA and provide education to base personnel as appropriate from that review.

2. Inclusion of cases of patients released at the scene in Base Hospital Audio Recording Reviews.

3. Notification of EMS provider agency quality improvement staff when the base has knowledge of patients who are released at the scene and return for evaluation in the emergency department.

CROSS REFERENCE:

Prehospital Care Manual:
Ref. No. 304, **Paramedic Base Hospital Standards**
Ref. No. 606, **Documentation of Prehospital Care**

Ref. No. 832, **Treatment/Transport of Minors**
Ref. No. 816, **Physician At The Scene**
Ref. No. 1200, **Treatment Protocols**, et al.
Ref. No. 1200.2, **Base Contact Requirements**
Ref. No. 1309, **Color Code Drug Doses**
Ref. No. 1380, **Medical Control Guidelines: Vital Signs**

Reference No. 834, Patient Treatment/Transport and Treat and Release At Scene

	Committee/Group	Date Assigned	Approval Date	Comments* (Y if yes)
EMS ADVISORY COMMITTEES	Provider Agency Advisory Committee	2/12/2025	2/12/2025	No
	Base Hospital Advisory Committee	2/5/2025	2/5/2025	No
OTHER COMMITTEES/RESOURCES	Medical Council	3/3/2025	3/3/2025	No
	Trauma Hospital Advisory Committee			
	Ambulance Advisory Board			
	EMS QI Committee			
	Hospital Association of So California			
	County Counsel			
	Other: LA County ECMO Pilot Study Workgroup			
	SRC Advisory Committee			

***** See **Summary of Comments** (Attachment B)

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

(EMT/ PARAMEDIC/MICN)

SUBJECT: **APPLICATION OF PATIENT RESTRAINTS** REFERENCE NO. 838

PURPOSE: To provide guidelines for emergency procedures and use of restraints in the field or during transport of patients who are violent or potentially violent, or who may harm self or others.

AUTHORITY: California Code of Regulations, Title 22, Sections 100063, 100145, 100169(a)(1,2) and (c)(1)
Welfare and Institutions Code, 5150
California Code of Regulations, Title 13, Section 1103.2
Health and Safety Code, Section 1798(a)

PRINCIPLES:

1. The safety of the patient, community, and responding personnel is of paramount concern when considering the use of restraints.

2. Staff should be properly trained in the appropriate use and application of restraints and in the monitoring of patients in restraints.

3. The application of restraints is a high-risk procedure due to the possibility of injury to both the patient and the provider; therefore, the least restrictive method that protects the patient and emergency medical services (EMS) personnel from harm should be utilized.

4. Restraints should be used in situations where the patient is potentially violent or is exhibiting behavior that is dangerous to self or others, only as necessary, when all lesser restrictive measures (e.g., verbal de-escalation) have failed.

5. EMS personnel must consider that aggressive or violent behavior may be a symptom of medical conditions such as head trauma, alcohol, substance abuse, metabolic disorders, emotional stress and, behavioral and psychiatric disorders. Base contact criteria shall be strictly adhered to for those conditions that require it.

6. Authority for scene management (e.g., controlling the activities that occur in the environment or space around the patient; ensuring bystanders are kept away; and EMS personnel are provided with a safe environment to treat the patient) shall be coordinated by law enforcement (LE), where applicable.

7. The responsibility for patient health care management rests with the highest medical authority on scene. Therefore, medical intervention and patient destination shall be determined by EMS personnel according to applicable policies.

    a. The preferred restraint modality should be coordinated with LE, when applicable.

    b. The method of restraint used should allow for adequate monitoring of vital signs and should not restrict the patient's ability to breathe freely. Restraints should not prevent ability to protect the airway nor compromise neurological or vascular status.

APPROVED: _____ _____
Director, EMS Agency Medical Director, EMS Agency

8. This policy is not intended to negate the need for LE personnel to use appropriate restraint equipment approved by their respective agency to establish scene management control.

POLICY

I. Forms of Restraining Devices

A. Restraint devices applied by EMS personnel (including for the purpose of interfacility transport of psychiatric patients) must be either padded hard restraints or soft restraints (i.e., vest with ties, Velcro or seatbelt type). Both methods must be keyless and allow for quick release. Restraints shall be applied as four point padded wrist and ankle restraints, or a two-point padded wrist and belt restraint.

B. The following methods of restraint shall NOT be utilized by EMS personnel:

1. Applying hard plastic ties or any restraint device requiring a key to remove.

2. Restraining a patient's hands and feet behind their back.

3. Restraining patients in prone position.

4. Placing a patient on a gurney and then placing a device (e.g., backboard, scoop stretcher or flats) on top of the patient, referred to as "Sandwich" method.

5. Applying materials in a manner that could cause vascular, neurological or respiratory compromise (e.g., restriction of limbs, the neck or chest using gauze bandage or tape).

C. In some situations, it may be necessary for LE to apply restraints (e.g., handcuffs, flex-cuffs, herein referred to as LE-restraint), which are not approved by EMS protocols. When appropriate, patients requiring ongoing patient care or EMS transported patients should have LE-restraints discontinued in favor of an EMS approved restraint intervention.

II. Application and Monitoring of Restraints

A. A restrained patient shall never be left unattended.

B. Any restraint device used must allow for rapid removal if the patient's airway, breathing, or circulation becomes compromised.

C. Restrained extremities should be evaluated for pulse quality, capillary refill, color, temperature, nerve and motor function immediately following application and at a minimum of every 15 minutes thereafter (or more often if clinically indicated). Any abnormal findings require adjustment, removal and reapplication of restraints if necessary.

D. Restraint methods must allow the patient to straighten the abdomen and chest such that they can take full breaths.

E. Under no circumstances are patients to be transported in the prone position regardless of who applies the restraint.

F. EMS personnel must ensure that the patient's position allows for adequate monitoring of vital signs, does not compromise respiratory, circulatory, or neurological status, and does not preclude any necessary medical intervention to protect or manage the airway should vomiting occur.

G. EMS restraints shall not be attached to movable side rails of a gurney.

H. Restraint devices applied by LE require the officer's continued presence to ensure patient and scene management safety.

1. The LE officer should accompany the patient in the ambulance.

2. In the unusual event that this is not possible, the LE officer should follow by driving in tandem with the ambulance on a pre-determined route.

3. A method to alert the LE officer of any problems that may develop during transport should be discussed prior to leaving the scene.

4. If the patient is handcuffed by LE officers, consideration should be made to transition to the least restrictive restraints that are safe for the patient and responders, including consideration of transfer to EMS restraints.

III. Pharmacologic Management of the Patient in Restraints

A. A patient who has undergone physical restraint should not be allowed to continue to struggle against the restraints as this may lead to injury (i.e., rhabdomyolysis, strains, sprains, severe acidosis, cardiac ischemia).

B. Patients who are agitated while in physical restraint may receive midazolam by EMS personnel to reduce agitation with continued monitoring for respiratory depression, in accordance with (*TP 1209, Psychiatric/Behavioral Emergencies*).

1. If the patient remains agitated in BLS care and there is an ongoing concern for patient safety, ALS upgrade shall be initiated.

2. Resuscitation and monitoring equipment, including oxygen and bag valve mask, should be near the patient and accessible prior to proceeding with sedation.

3. Initiate monitoring of pulse oximetry, cardiac rhythm, and capnography (when available) as soon as possible peri-/post-sedation and prior to transport. Contact Base for guidance if persistent agitation prevents monitoring prior to transport.

IV. Required Documentation on the Patient Care/EMS Report Form

A. Reason restraints were applied

B. Type of restraints applied

C. Identity of agency/medical facility applying restraints

C. Assessment of the overall cardiac and respiratory status of the patient; and the circulatory, motor and neurological status of the restrained extremities at a minimum of every 15 minutes

E. Reason for removing or reapplying the restraints or any abnormal findings

V. Quality Assurance:

A. Develop a process for review of selected cases where physical restraint and/or medication are used by EMS personnel to manage agitation, with attention to the type of restraint(s) used, the quality and frequency of physiologic monitoring, protocol compliance, and documentation compliance.

B. Agencies shall track the use of medications for the purpose of management of agitated patients.

CROSS REFERENCE:

Prehospital Care Manual:
Ref. No. 502, **Patient Destination**
Ref. No. 703, **ALS Unit Inventory**
Ref. No. 1200.2, **Base Contact Requirements**

Reference No. 838, Application of Patient Restraints

	Committee/Group	Date Assigned	Approval Date	Comments* (Y if yes)
EMS ADVISORY COMMITTEES	Provider Agency Advisory Committee	4/16/25	4/16/2025	Yes
	Base Hospital Advisory Committee	4/9/25	4/9/2025	No
OTHER COMMITTEES/RESOURCES	Medical Council			
	Trauma Hospital Advisory Committee			
	Ambulance Advisory Board			
	EMS QI Committee			
	Hospital Association of So California			
	County Counsel			
	Other:			

***** See **Summary of Comments** (Attachment B)

POLICY REVIEW - SUMMARY OF COMMENTS REFERENCE NO. 202.2
(ATTACHMENT B)

REFERENCE NO. 838, Application of Patient Restraints

SECTION	COMMITTEE/DATE	COMMENT	RESPONSE
Policy III. B. 3	PAAC 4/16/2025	Revise wording to address if patient continues to have persistent agitation.	Revised
Policy IV. B.	AAC 4/16/2025	Remove "…the appropriateness of restraint for the patient…"	Adopted

DEPARTMENT OF HEALTH SERVICES
COUNTY OF LOS ANGELES

Medical Control Guideline: ECPR PATIENT ALGORITHM **Ref. No. 1318**

PRINCIPLES:

1. Some patients with out-of-hospital cardiac arrest who are refractory to conventional cardiopulmonary resuscitation have improved outcomes if extracorporeal membrane oxygenation (ECMO) is used to provide ongoing resuscitation support. ECMO treatment for patient in cardiac arrest is called extracorporeal cardiopulmonary resuscitation (ECPR) or extracorporeal life support (ECLS).

2. Currently it is not known exactly which patients are able to benefit from ECPR but certain patients including patients with refractory ventricular fibrillation/ventricular tachycardia (rVF/VT) cardiac arrest have been shown to have up to 30% improved survival.

3. For all patients with OHCA, management should be conducted to minimize interruptions in chest compressions and prioritize standard therapies, including chest compressions and defibrillation for shockable rhythms, and early epinephrine for non-shockable rhythms.

4. While usual protocols emphasize prolonged on scene resuscitation for rVF/VT, patients for whom ECPR is indicated and a mechanical compression device (MCD) is available to maintain quality chest compression during transport should be transported as soon as possible once ECPR criteria are met in order to minimize the low-flow time prior to cannulation for ECPR. Goal scene time is no more than 15 minutes.

5. Patients for whom there is a significant delay in transport due to extrication challenges or lack of MCD availability should be resuscitated on scene to achieve return of spontaneous circulation (ROSC) since ECPR is unlikely to be initiated in patients more than 60 minutes after cardiac arrest onset.

6. Patients transported with ongoing resuscitation should have an advanced airway in place to ensure adequate ventilations during movement and transport, and an Impedance Threshold Device (ITD) attached when available.

7. Epinephrine beyond 3 doses is associated with worse outcomes in patients with rVF/VT. Additional epinephrine for patients who re-arrest into a non-shockable rhythm should be considered on a case-by-case basis.

8. Contact directly with the ECPR Receiving Center Base facilitates clear communication and reduces delays. MICNs and Base physicians should be familiar with the differences in the field management priorities for these patients.

9. In general, patients for whom contact is made with a non-ECPR SRC Base for medical direction should not be redirected to an ECPR Receiving Center, since the delay will result in poor ECPR candidacy; in such cases, medical direction should focus on optimizing the resuscitation to achieve ROSC.

10. When the ECPR Receiving Center is the closest accessible SRC, additional patients who do not meet the ECPR criteria for immediate transport may be considered for ECPR on a case-by-case basis if the ECMO team feels the patient could benefit. Early contact with the ECPR SRC Base should be made in these cases to determine if early transport prior to ROSC is advisable.

Medical Control Guideline: ECPR PATIENT ALGORITHM **Ref. No. 1318**

GUIDELINES:

1. Paramedics shall identify patients who meet ECPR criteria and manage the patient per TP 1210, Cardiac Arrest while prioritizing transport.

2. Scene time for ECPR eligible patients should be limited to ≤15 minutes.

3. A maximum of 3 doses of epinephrine (total of 3mg) is indicated during the resuscitation. Push-dose epinephrine is appropriate and should be administered after ROSC to prevent re-arrest when indicated.

4. An advanced airway should be inserted as soon as feasible to facilitate ventilations during transport.

5. Communication with the ECPR Receiving Center Base should occur immediately after transport is initiated. Base will ensure the hospital is prepared to receive the patient and can activate the ECMO team.

6. The ECPR Receiving Center Base will confirm priorities including chest compressions via MCD, defibrillations, and advanced airway with capnography monitoring, and will activate the ECMO team when indicated prior to patient arrival.

Medical Control Guideline: ECPR PATIENT ALGORITHM **Ref. No. 1318**

INITIATE TREATMENT OF NON-TRAUMATIC CARDIAC ARREST PER TP 1210

Potential eCPR Candidate (ALL of the following):

1. Age ≥15 and ≤75
2. Initial rhythm VF/VT refractory after ≥2 defibrillations or ROSC with recurrent arrest
   OR
   Suspected massive PE* (any rhythm)
3. Mechanical Compression Device in use
4. ≤30 minutes ground transport to the eCPR Center
5. **NO** do-not-resuscitate order, terminal illness**, or severe baseline neurologic dysfunction

Yes to ALL

*Sudden cardiac death from massive PE may be suspected in a patient with recent immobilization from prolonged travel or hospitalization/surgery or known prior PE; symptoms are typically sudden in onset with preceding dyspnea and/or chest pain.

**Terminal illness refers to patients who are chronically ill with severe end-organ dysfunction and/or metastatic cancer. In general, patients with significant chronic comorbidities are poor candidates for eCPR. If in doubt and patient otherwise meets criteria, contact and route to the eCPR center.

- Maintain continuous chest compressions with a mechanical compression device
- Insert an advanced airway, i-gel preferred if no contraindications
- Prioritize transport to the eCPR Receiving Center (limit scene time to ≤15 minutes)
- Continue management per TP 1210 en route
- Contact the eCPR Receiving Center Base immediately once en route, if not done prior, to notify of the patient for ECMO team activation

Reference No. 1318, ECPR Patient Algorithm

	Committee/Group	Date Assigned	Approval Date	Comments* (Y if yes)
EMS ADVISORY COMMITTEES	Provider Agency Advisory Committee	2/12/2025	2/12/2025	No
	Base Hospital Advisory Committee	2/5/2025	2/5/2025	No
OTHER COMMITTEES/RESOURCES	Medical Council	3/3/2025	3/3/2025	No
	Trauma Hospital Advisory Committee			
	Ambulance Advisory Board			
	EMS QI Committee			
	Hospital Association of So California			
	County Counsel			
	Other: LA County ECMO Pilot Study Workgroup	8/8/2024	8/8/2024	No
	SRC Advisory Committee	10/1/2024	10/1/2024	No

***** See **Summary of Comments** (Attachment B)

EMERGENCY MEDICAL SERVICES AGENCY
LOS ANGELES COUNTY

10100 Pioneer Boulevard, Suite 200
Santa Fe Springs, CA 90670

Tel: (562) 378-1500
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Health Services
http://ems.dhs.lacounty.gov

March 6, 2025

Kelsey Wilhelm, MD, Medical Director
Compton Fire Department
201 S. Acacia Avenue
Compton, California 90220

CERTIFIED

Dear Dr. Wilhelm:

LOS ANGELES DEVELOPMENT & RAPID OPERATIONALIZATION OF PREHOSPITAL BLOOD (LA-DROP) PILOT PROGRAM APPROVAL

This letter is to confirm that Compton Fire Department (CM) and Los Angeles County Fire Department (CF) have been approved by the Emergency Medical Services (EMS) Agency for the Los Angeles Development & Rapid Operationalization of Prehospital Blood (LA-DROP) pilot for a twenty-four (24) month period at which time the pilot will be re-evaluated for efficacy and feasibility.

All CM Rescue Squads and the following CF units have been designated for participation in the pilot:

- Battalion 7—10, 36, 41, 116
- Battalion 18—21, 158, 161
- Battalion 20—14, 171, 172, 173

The quality improvement plan for the pilot requires both CM and CF to submit quarterly reports to the EMS Agency. These reports will include, at minimum, the following items:

- Descriptive characteristics for patients meeting criteria for prehospital blood transfusion (PHBT)
- Descriptive characteristics for patients who received PHBT
- Time metrics
- Safety outcomes
- Efficacy outcomes
- Appropriate statistical evaluation

Additional data may be requested from CM and CF if deemed necessary by the EMS Agency to assess pilot program objectives.

In addition to the above requirements, please report all sentinel events within 24 hours of occurrence.

The quarterly reports are due thirty (30) days after the end of each quarter and should be addressed to me at NBosson@dhs.lacounty.gov and copy Gerard Waworundeng at GWaworundeng@dhs.lacounty.gov).

Sincerely,

Nichole Bosson, MD, MPH, NRP, FAEMS
Medical Director

NB:gw
03-01

c. Director, EMS Agency
Fire Chief, Compton Fire Department
Fire Chief, Los Angeles County Fire Department
Medical Director, Los Angeles County Fire Department
Quality Improvement Director, Los Angeles County Fire Department
Nursing Director, EMS Programs, EMS Agency
Chief, Prehospital Operations, EMS Agency
Chief, Data Systems and Research, EMS Agency

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March 17, 2025

MEMORANDUM

TO: Distribution

FROM: Nichole Bosson, MD, MPH
Medical Director, LA County EMS Agency

SUBJECT: **LOS ANGELES DEVELOPMENT & RAPID OPERATIONALIZATION OF PREHOSPITAL BLOOD (LA-DROP) PILOT**

This is to notify you that the Los Angeles Development & Rapid Operationalization of Prehospital Blood (LA-DROP) Pilot will begin April 1, 2025.

The prehospital blood transfusion pilot provider agencies include the Los Angeles County Fire Department (units specified below) and Compton Fire Department. LA-DROP is a partnership with these provider agencies, Harbor-UCLA Medical Center, the San Diego Blood Bank, and the Los Angeles County EMS Agency. The California EMS Authority has approved prehospital blood transfusion in local optional scope of practice for LA County.

Participating Pilot Units	
Region	*Units*
LA County Fire Battalion 7	s10, s36, s41, s116
LA County Fire Battalion 18	s21, s100, s161
LA County Fire Battalion 20	S14, s171, s172, s173
Compton Fire	All Units

Participating ALS units will be equipped with blood products, either low-titer O positive whole blood (LTO+WB) or packed red blood cells (PRBC), which may be administered to **adult patients (≥15 years old) in hemorrhagic shock from trauma or post-partum hemorrhage per the attached protocol**. Blood storage and administration will be rigorously monitored per The Association for the Advancement of Blood & Biotherapies (AABB) Standards.

Paramedics will follow usual base contact and destination policies. **All 9-1-1 receiving centers should be aware of this pilot and the attached hospital resource document**, in particular Trauma Centers and Base Hospitals. Base Hospitals will receive a separate communication with additional training resources.

Data are collected for system quality improvement and patient safety monitoring. Outcome reporting, including identification of any transfusion reactions, is required by the California EMS Authority. Therefore, a participating provider agency medical director will be contacting hospitals for limited data on transfused patients and provide a HIPAA-compliant form for submission.

For more background on the program, you may view this video, which introduces the training program and rationale for the prehospital blood transfusion pilot in LA County: https://vimeo.com/1062996337. Further details are also available in the attached Facts and Questions.

To support the program, there will be increased opportunities to donate blood and we will notify you when these opportunities are available.

If you have any questions please contact me at nbosson@dhs.lacounty.gov or (562) 378-1600.

Attachments:

Prehospital Blood Transfusion Protocol, Checklist and Consent Tool
Receiving Hospital Resource Document
Facts and Questions

c: Director, EMS Agency
Fire Chiefs, Public Provider Agencies
Medical Directors, Public Provider Agencies
Paramedic Coordinators, Public Provider Agencies
EMS Educators, Public Provider Agencies
Medical Directors, Ambulance Companies
Paramedic Coordinators, Ambulance Companies
Direct of Operations, EOA Provider Agencies
Medical Director, Paramedic Base Hospitals
Prehospital Care Coordinator, Paramedic Base Hospitals
Chief Executive Officers, 9-1-1 Receiving Hospitals
ED Managers, 9-1-1 Receiving Centers
Hospital Association of Southern California
California EMS Authority

Prehospital Blood Transfusion Pilot Protocol

LA-DROP
PREHOSPITAL BLOOD TRANSFUSION

Hemorrhagic Shock due to Severe Traumatic Injury or Post-partum Hemorrhage

Control External Bleeding
Apply Tourniquet prn
Consider Tension Pneumothorax

Prioritize Transport

Does the patient meet criteria for prehospital blood?

YES

Warm and rapidly transfuse one unit of LTO+WB OR two units PRBCs

AND

Administer TXA 1g IV/IO over 10 minutes

Continuous monitoring of HR, SpO2, EtCO2, and transfusion reactions

Document BP q3 minutes

Prehospital Blood Transfusion Criteria

SBP < 70 mmHg or unable to obtain

OR

SBP < 90 AND HR ≥ 110

OR

Traumatic arrest witnessed by EMS

Exclusions

Pediatric patient (≤14 years or on length-based tape)
Traumatic arrest not witnessed by EMS
Isolated head injury and/or ground level fall
Patient refusal

CONTACT BASE for **Base Physician** consultation if you believe prehospital blood transfusion is indicated and criteria are not met, or for additional dosing.

NO

Manage patient per Treatment Protocols

Fluid challenge prn

Administer TXA 1g IV/IO over 10 minutes when indicated

Continuous Monitoring of HR, SpO2, EtCO2

Document BP q3 minutes

If patient meets above criteria after initial transfusion as above:

1. Transfuse one more unit of LTO+WB OR PRBCs
2. Reconsider other causes of shock

For additional doses, **CONTACT BASE** for Base Physician consultation

LA-DROP
Blood Administration Field Checklist

- ❑ Ensure external bleeding controlled, think "MARCH"
- ❑ Place patient on cardiac monitor
  - ❑ Obtain HR, BP, SPO2 and $ETCO_2$
- ❑ Establish 2 large bore IVs (preferred) or IOs if unable
- ❑ Confirm indications and rule out contraindications
- ❑ Inform patient of transfusion or use implied consent and look for refusal markers
- ❑ Remove blood product and relock the cooler
- ❑ Inspect the blood bag for integrity and blood clots
- ❑ Perform cross check with a second paramedic:
  - ❑ Product Type (Whole Blood or pRBCs)
  - ❑ Rh Factor (O positive or O negative)
  - ❑ Expiration Date
- ❑ Prime blood tubing and warmer with saline
- ❑ Spike 1 unit of blood to the Y connector with primed tubing
- ❑ Verify that blood is flowing and no extravasation at access site
- ❑ Rapidly transfuse the entire bag of blood by rapid infuser or pressure bag
- ❑ Reassess to determine if patient meets indications for additional 1 unit of blood:
  - If yes, transfuse 1 additional unit (LTO+WB or pRBCs)
  - If no, flush remaining blood in tubing with NS on Y connector until clear
- ❑ Administer TXA 1 g IV/IO as soon as feasible
- ❑ Immediately recheck vital signs, continuous monitoring, reassess BP q3 mins
- ❑ Maintain IV/IO line patency
- ❑ Continuously monitor for transfusion reaction
- ❑ Apply patient wristband for hospital awareness

Hemorrhagic shock is due to traumatic injury or post-partum hemorrhage.

Prehospital Blood Transfusion Criteria

SBP < 70 mmHg or unable to obtain
OR
SBP < 90 AND HR ≥ 110
OR
Traumatic arrest witnessed by EMS

Exclusions

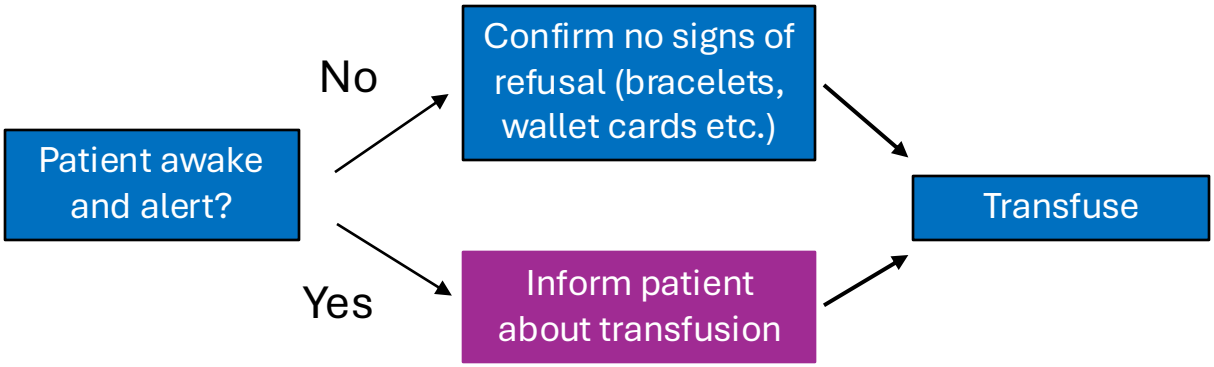
Pediatric patient (≤14 years or on length-based tape)
Traumatic arrest not witnessed by EMS
Isolated head injury and/or ground level falls
Patient refusal

CONTACT BASE for **Base Physician** consultation if you believe prehospital blood transfusion is indicated and criteria are not met, or for additional dosing.

Actions to take for suspected transfusion reaction:

- ✓ STOP TRANSFUSION
- ✓ Disconnect tubing from IV; flush IV port
- ✓ Follow Treatment Protocols (e.g., 1214, 1219)
- ✓ Document reaction in ePCR and report reaction during verbal hand-off
- ✓ Provide blood bag and all tubing to hospital for testing

Blood Transfusion Consent



Scripting Suggestions:

- *"We need to give you a life saving blood transfusion due to your severe bleeding. The risks are very low and include allergy, fever, or breathing reactions and we will monitor you closely. There is a very rare chance of disease transmission, about 1 in 1 million."*

Special Circumstances:

- **If patient sex is female and of childbearing age (<50 years):** *"Depending on your blood type, your body may produce a reaction from a blood transfusion that has a potential risk of affecting future pregnancies."*
- **If patient refuses blood or carries documentation/identifying marker of blood refusal:** "*Because I want to make sure I respect your decisions, I want to confirm that you do not want to be treated with blood products even if that means you might die. Is that correct?"*

For minors (< 18 years):
If parent/guardian on scene, inform them of need for transfusion.
If no parent/guardians on scene, utilize implied consent.

CONTACT BASE for Base Physician consultation on all refusals of blood transfusions

Risk	Risk per unit of blood	Severity
Allergic reactions: - Mild - Moderate - Severe	 1 in 100 1 in 50,000	Ranges from - Hives and itching to - Low BP, nausea, difficulty breathing to - Shock
Fever	1 in 200	Temporary; not harmful
Injury to the lungs	1 in 1,200 to 190,000	1:10 risk of death if complication occurs
Contamination of product causing bacterial infection in patient's bloodstream.	1 in 10,000 to 100,000	Severe to life-threatening
Too much fluid in your bloodstream	Less than 1 in 100	Ranges from mild to severe
Too much iron in your bloodstream and tissues	Can occur after 10-20 red blood cell transfusions if patient is not bleeding	Ranges from mild to severe
Breaking apart of red blood cells	1 in 25,000	Ranges from mild to severe
Viral infection	Every unit of blood is tested for all major viruses; the risk of getting HIV, Hepatitis C, or Hepatitis B from a blood transfusion is close to 1 in 1,000,000 to 1,500,000.	

Receiving Hospital Resource Document

What can you expect when EMS transports a pilot patient to your facility?
Patients who meet criteria for transfusion will have had low-titer Group O+ whole blood (LTO+WB) rapidly warmed and transfused via large bore IV or IO.

Patients will arrive with a neon green wristband labeled "EMS Blood Tx", which will have a scannable QR code that links to more program specific information. All used blood bags (including segments) and tubing will be left with the accepting nurse for further blood bank testing as needed.

EMS will report transfusion related information during verbal patient handover including:

- Indication for transfusion
- Type of blood product administered
- Total volume of blood product administered
- If transfusion was stopped prior to completion and, if so, why
- Any adverse reactions including suspected transfusion reactions
- Any additional medications given (e.g., TXA)

Further patient care details can be found in the prehospital electronic patient care record.

Alloimmunization Guidance
Patients are transfused with low-titer Group O+ whole blood (LTO+WB) as part of the LA-DROP prehospital blood transfusion program to save their life. This LTO+WB is Rh-positive, meaning it has the potential to alloimmunize an Rh-negative patient by triggering the development of anti-D antibodies. Anti-D antibodies will not harm the patient but could possibly impact future pregnancies.

If the patient is Rh-negative and potentially desires pregnancy in the future:
Consult your hospital's transfusion medicine service and pharmacist about recommended management strategies and treatment plans including **administration of Rh immunoglobulin (RhIg) within 72 hours**. If needed, you may contact the Director of the Harbor-UCLA Transfusion Medicine Service at 424-306-6227 for technical program questions. Additional resources are available at www.allohopefoundation.org.

Recommendations for management of potential Rh-alloimmunization:

- Discuss the potential for Rh antibody (anti-D) formation. If there is no possibility that the patient will be pregnant in the future, RhIg carries little benefit. If future pregnancies are possible, consider whether to administer RhIg to prevent anti-D development.
- Standard Dose: A **300 microgram** dose of RhIg can suppress the immune response to up to **30 mL** LTO+WB. Each unit of LTO+WB is approximately 500 mL.
- RhIg administration is contraindicated if the Rh-positive RBC volume transfused is >20% of the patient's total blood volume due to the potential for marked red cell splenic sequestration and hemolysis.

For Rh-negative patients, we recommend repeating Type and Screen testing **6-12 weeks** following the exposure to the LTO+WB to determine the development of anti-D antibodies. If antibody testing remains negative, then it is unlikely that patients will develop anti-D later. If the patient may become pregnant and has developed anti-D, the patient should be informed of the potential impact on future pregnancies and understand the importance of sharing this information with their healthcare providers. If they become pregnant, the patient should be referred to an obstetrician who specializes in maternal-fetal medicine.

Patient outcomes and adverse event reporting
The participating EMS Provider Agency Medical Directors will reach out to the Trauma Program Managers or other established hospital points of contact for limited critical outcome data, including transfusion reactions. Data will be obtained via a secure HIPAA-compliant form. Timely and complete outcome data will ensure patient safety and is required by the California EMS Authority. The receiving hospital blood bank will be contacted by the Director of Transfusion Medicine at Harbor-UCLA should any look backs or other notifications be required.

LA-DROP PROGRAM FAQs

How does the LA-DROP program help the community?

The LA-DROP program helps save lives by giving blood transfusions to people who are bleeding a lot, such as after an injury or childbirth. Paramedics can give blood right away at the scene, which helps prevent organ damage and increases the chances of survival.

Is the blood safe?

Yes. The blood used in this program is the same as what hospitals use. It is tested for diseases like HIV and hepatitis and stored under strict rules to keep it safe.

Who can get a blood transfusion before going to the hospital?

People who are bleeding badly from injuries or childbirth and need emergency care from 9-1-1 paramedics.

How does this program support national healthcare goals?

This program helps reduce preventable deaths by giving life-saving blood transfusions before a patient reaches the hospital. It is part of a national effort to improve emergency care. LA-DROP is a collaborator in the Prehospital Blood Transfusion Initiative Coalition (https://prehospitaltransfusion.org/).

How will the program's success be measured?

The program will track things like survival rates, how quickly blood is given, any problems that happen, and how much blood is used or wasted.

What kind of blood is used?

The program mainly uses O+ whole blood, which contains red blood cells, plasma, and platelets. This type of blood is best for stopping bleeding and saving lives. It is donated by volunteers and kept cold to keep it fresh.

If whole blood is not available, red blood cells (RBCs) may be used instead.

Why is whole blood important?

- **Red blood cells (RBCs)** carry oxygen to the body.
- **Plasma and platelets** help stop bleeding by making clots.
- **Blood volume** helps keep blood pressure stable.

LA-DROP PROGRAM FAQs

How is blood stored and transported?

Blood is kept in special refrigerators inside paramedic vehicles at a safe temperature just as it is in the hospitals.

How are paramedics trained for this?

Paramedics learn how to store and give blood, follow safety rules, recognize bad reactions, and keep proper records.

What happens to unused blood?

Unused blood is sent to hospitals where it can be used before it expires, so it doesn't go to waste.

Are there any risks?

Blood transfusions are very safe, but there are small risks, such as:

- **Mild reactions** (like allergies or fevers) happen in 1-3% of cases and can be treated with medicine.
- **Serious reactions** (like lung injury) are very rare (1 in 100,000 transfusions).
- **Infections** from blood are extremely rare (1 in 1.5-2 million transfusions).
- **Antibody formation** might happen, which could make future transfusions or pregnancies more complicated, but the risk is low.
- **Cold blood** can lower body temperature, so special devices warm it up before it is given.

Can persons of childbearing age get this blood?

Yes. There is a small chance that receiving this blood could affect future pregnancies, but the benefit of saving a life is more important. Using our local numbers, we estimate this would happen in only 1 out of 10,000 transfusions. Hospitals have guidelines to manage this risk.

For more information, visit: https://allohopefoundation.org/

Can children receive this blood?

Children under 15 are not included in this program, but in special cases, a hospital doctor might allow it.

What if someone has a religious objection to blood transfusions?

All blood comes from human donors. If someone does not want a blood transfusion for religious reasons, they should tell the first responders or carry a card or bracelet. In emergencies, options may be limited.

Will getting blood before the hospital limit other treatments?

No. Receiving blood early does not stop doctors from giving more blood or medicine later if needed. In fact, early transfusions help the body and may reduce the need for more blood later.

LA-DROP PROGRAM FAQs

Is this blood type universal?

O+ blood can be given to most people. However, O- blood would be even safer for all patients, but there isn't enough O- blood available.

More information about whole blood:

- **How much blood is in one unit?** About 500 mL (half a liter).
- **How is whole blood different from red blood cells?** Whole blood has plasma and platelets, which help stop bleeding. Red blood cells alone only help carry oxygen.
- **Why use whole blood instead of separate components?** Whole blood is more natural and reduces the number of donors a patient is exposed to.

Is the blood irradiated?

No, because irradiation slightly damages red blood cells. In emergencies, there isn't enough time to irradiate the blood, and it isn't needed for most patients.

Are the platelets in whole blood effective?

Yes, platelets in cold-stored whole blood work well for up to 14 days and help stop bleeding.

Will this blood change my blood type?

No, but if you get a lot of it, it might temporarily affect lab test results.

Can I still receive other blood products later?

Yes, you can receive more blood products if needed after getting whole blood.

How can I help by donating blood?

Blood donations are needed to save lives. You can donate at local blood banks. **Who can donate blood?**

- You must be at least **16 years old** (with parental consent) or **17 without consent**.
- You must weigh at least **110 lbs (50 kg)**.
- You must be in **good health**.

For more details, visit:

- San Diego Blood Bank
- Red Cross

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"To advance the health of our communities by ensuring quality emergency and disaster medical services."

April 1, 2025

TO: Distribution **VIA E-MAIL**

FROM: Richard Tadeo, RN
Director, EMS Agency

SUBJECT: **PERMANENT REMOVAL OF SERVICE AREA BOUNDARIES**

On December 1, 2024, the Los Angeles County Emergency Medical Services (EMS) Agency, in cooperation with the affected hospitals, suspended all Service Area boundaries. This patient destination change affected the following defined service areas:

- Shared Service Area for Dignity Health California Hospital Center and PIH Health Good Samaritan Hospital
- Adventist Health White Memorial Medical Center

This suspension is now permanent. Patient destination within these service area boundaries will be based upon Ref. No. 502, Patient Destination. Diversion of patients shall follow Ref. No. 503, Guidelines for Hospital Requesting Diversion of ALS/BLS patients.

On April 15, 2025, the following Prehospital Care References will be deleted:

- Ref. No. 509, Service Area Hospital
- Ref. No. 509.2, Shared Service Area for Dignity Health – California Hospital Medical Center and PIH Health Good Samaritan Hospital
- Ref. No. 509.2a, Shared Service Area for Dignity Health – California Hospital Medical Center and PIH Health Good Samaritan Hospital – Map
- Ref. Nos. 509.4, Shared Service Area for Adventist Health – White Memorial, East Los Angeles Doctors Hospital and Community Hospital of Huntington Park
- Ref. Nos. 509.4a, Shared Service Area for Adventist Health – White Memorial, East Los Angeles Doctors Hospital and Community Hospital of Huntington Park – Map

Thank you for your attention to this matter and your support of the EMS system. If you have any questions, feel free to contact me at (562) 378-1610 or Chris Clare, Nursing Director – EMS Programs at (562) 378-1661.

RT:cc

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