





**SAN MATEO COUNTY HEALTH
EMERGENCY
MEDICAL SERVICES**

EMS POLICY	509
Effective:	April 2023
Approval: EMS Director Travis Kusman, MPH	Signed: 
Approval: EMS Medical Director Greg Gilbert, MD	Signed: 

UTILIZATION OF EMS AIRCRAFT

I. PURPOSE

This policy establishes procedures for EMS aircraft use by public safety agencies when requesting an air ambulance or rescue aircraft for an EMS system response. It further specifies criteria for patient transport by air ambulance and outlines coordination of field operations at incidents involving air ambulance response to ensure the safest, most appropriate, and cost-effective method of transport based on the needs of the patient.

II. AUTHORITY

California Health and Safety Code, Division 2.5, §1797-1797.207; California Code of Regulation, Title 22, Division 9, §100128 and 100170

III. DEFINITIONS

Advanced Life Support (“ALS”): Special services designed to provide definitive prehospital emergency medical care, including, but not limited to, cardiopulmonary resuscitation, cardiac monitoring, cardiac defibrillation, advanced airway management, intravenous therapy, administration of specified drugs and other medicinal preparations, and other specified techniques and procedures administered by authorized personnel under the direct supervision of a base hospital as part of a local EMS system at the scene of an emergency, during transport to an acute care hospital and while in the emergency department of an acute care hospital until responsibility is assumed by the emergency or other medical staff of that hospital.



Air ambulance: Any aircraft specifically constructed, modified, or equipped and staffed for the primary purpose of responding to emergency medical calls and transporting critically ill or injured patients. Air ambulance aircraft shall be ALS capable.

Basic Life Support (“BLS”): Emergency first aid and cardiopulmonary resuscitation procedures which, as a minimum, include recognizing respiratory and cardiac arrest and starting the proper application of cardiopulmonary resuscitation to maintain life without invasive techniques until the victim may be transported or until advanced life support is available.

Emergency Medical Services Agency (“LEMSA”) [or “Agency”]: The San Mateo County EMS Agency is designated as the Local Emergency Medical Services Agency (LEMSA) and is statutorily charged with primary responsibility for administration and medical control of



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emergency medical services in San Mateo County.

Public Safety Communications (“PSC”): San Mateo County Public Safety Communications, the LEMSA authorized Emergency Medical Dispatch service provider.

Rescue aircraft: Any aircraft the usual function of which is not prehospital emergency medical transport, but which may be used for prehospital transport when use of an air or ground ambulance is inappropriate or unavailable. Rescue aircraft may be ALS or BLS capable.

IV. APPLICABILITY AND COMPLINACE WITH REQUIREMENTS

- A. Each air ambulance provider, routinely responding within the County, shall have a written agreement with the County.
- B. A request to other air ambulance providers by PSC to respond to an emergency constitutes authorization to respond to that emergency.

V. REQUIREMENTS

- A. Authorized Air Ambulances will be staffed by a minimum of one registered nurse and one paramedic.
- B. All members of the medical flight crew will be trained in aeromedical transportation as listed in Title 22, Chapter 8, Article 3, Section 100302.
- C. Rescue aircraft are not required to be staffed by medical personnel; however, if a patient has been assessed or treated by a paramedic at the incident scene, the rescue aircraft will either:
 - 1. Have a San Mateo County paramedic accompany the patient during air transport to a receiving hospital; or
 - 2. Rendezvous with an air ambulance as soon as possible and transfer the patient to the air ambulance for transport to the receiving hospital.

VI. SPACE AND EQUIPMENT

- A. All air ambulances shall be configured with sufficient space to accommodate at a minimum one (1) patient on a stretcher and two (2) patient attendants.
- B. All authorized air ambulances shall meet or exceed all equipment and supply requirements specified by the San Mateo County EMS Agency.



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- C. Whenever feasible, air ambulances will exchange equipment with the ground personnel when their equipment will be taken to the hospital with the patient. If this is not possible, equipment belonging to ground personnel will be returned by the air ambulance provider in a timely manner.

VII. PATIENT CARE MANAGEMENT

- A. Air ambulances staffed by registered nurses will utilize the standard operating procedures and clinical care protocols of the air ambulance service. These protocols are subject to review and approval by the LEMSA Medical Director upon request.
- B. Prehospital care records will be submitted to the EMS Agency by the air ambulance service within 24-hours of each incident.



VIII. REQUEST AND RESPONSE

- A. The Incident Commander (IC) or designee is responsible for initiating an air ambulance or rescue aircraft response through PSC after consultation with the paramedic personnel on-scene.
- B. Requests should include, if known:
 - 1. Number of patients requiring helicopter transport;
 - 2. Current weather conditions at scene;
 - 3. Landing zone location and approaching hazard(s) information; and
 - 4. Haz-Mat information, if pertinent.
- C. Requests for an air ambulance response are made to PSC which will dispatch and coordinate the response.
- D. All authorized air ambulances shall be capable of communicating via radio with PSC, fire first responders, California Highway Patrol, emergency ground ambulances, and receiving hospitals.
- E. Landing zones shall be established and operated by fire first responders trained in aircraft landing zone operations.
- F. When dispatched, the air ambulance service or rescue aircraft service shall give an estimated time of arrival (ETA) in clock time (e.g., 1905 hours).

IX. PATIENT DESTINATION



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- A. Destination shall ordinarily be the closest appropriate hospital able to accept the patient. The pilot will have the final decision as to destination based on weather and air safety considerations.
- B. Trauma patients shall be transported to the closest, most appropriate trauma center.
- C. Burn patients not meeting trauma criteria shall be transported to the closest, most appropriate burn center.
- D. Patients aged 6 years and younger shall be transported to Stanford. UCSF Benioff Children’s Hospital of Oakland may be utilized if Stanford is unavailable.
- E. The air ambulance and/or its dispatch center will contact PSC with receiving hospital destination. Enroute, the air ambulance will relay pertinent patient information to the receiving hospital.

X. EMS AIRCRAFT UTILIZATION CRITERIA

- A. Air ambulance transport should be used when it provides a significant advantage over ground transport in terms of timely delivery of the patient from the scene to the emergency department.
- B. The estimated time of arrival of the helicopter, the time it takes to ground transport a patient to a helicopter rendezvous site, the helicopter scene time, the helicopter transport time to the hospital and the helicopter off-load time are factors to be considered when determining whether a helicopter is the most expeditious and appropriate method of transport.
- C. Clinical Criteria:
 - 1. Patients who meet the following clinical criteria may benefit from air ambulance transport:
 - a. Trauma patients who meet trauma activation criteria according to T01 – Trauma Triage protocol, except for:
 - i. Stable patients with isolated extremity trauma; and
 - ii. Patients with mechanism but no significant physical exam findings.
 - b. Trauma patients who do not meet trauma activation criteria but by evaluation of mechanism and physical exam findings, appear to have potential significant injuries that merit rapid transport.



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- c. Patients with specialized needs available only at a remote hospital such as major burn victims or critical pediatric patients.
- d. Critically ill or injured patients whose conditions may be aggravated or endangered by ground transport (e.g., limited access via ground ambulance or unsafe roadway) maybe appropriate for helicopter transport.
- D. An air ambulance may be automatically dispatched to an incident by PSC if EMD reveals any condition listed in Section C above when occurring in the following areas:
 - 1. Any area contained within the following:
 - a. San Mateo Coast, from ocean to Skyline Boulevard (Highway 35); or
 - b. From Tunitas Creek Road to Santa Cruz County line.
- E. An air ambulance may also be dispatched to an incident by PSC if the ground ambulance response time to the incident is known or expected to exceed 30 minutes and the EMD believes the patient has a condition listed in Section C above.

XI. ALS RESCUE AIRCRAFT PARAMETERS



- A. If a patient meets below criteria, consider using CHP ALS Aircraft for patient transport to a receiving hospital:
 - 1. Primary Care paramedic believes patient will be adequately and effectively cared for by a single paramedic resource; and
 - 2. Time savings must be ≥ 10 minutes in favor of CHP versus Air Ambulance asset.

XII. HELICOPTER UTILIZATION AND CANCELLATION DECISION

- A. The IC shall cancel the helicopter response when air ambulance transport criteria is not met. The following information is important for the IC to consider in making the best possible decision regarding mode of transport:
 - 1. Patient need: The paramedic with primary patient care responsibility will have the best information regarding the patient meeting clinical criteria.
 - 2. Estimated ground transport time versus air response and transport: The ground transport crew will be the best resource for determining whether or not there will be a transport time savings based on the travel time considering current traffic/weather conditions particularly when time savings by helicopter is minimal.



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3. Proximity of a heli-spot or need for a helicopter/ambulance rendezvous site: A significant amount of time may be added to overall transport time if a helicopter is unable to land in proximity to the patient.
4. ETA of the helicopter: If the patient is packaged and ready for transport, ground transport may be the fastest mode of transport overall if a helicopter has not arrived on-scene.
 - B. The ground ambulance responding to, or at the scene, should not be canceled until:
 1. The helicopter has left the scene with the patient aboard; or
 2. The IC, in consultation with paramedic personnel on-scene, has determined that no patient transport is required.

XIII. COMMUNICATIONS

- A. CALCORD should be utilized for air-to-ground communication. The IC or designee, in conjunction with the fire/medical dispatch will designate an alternate frequency if necessary.
- B. The IC or designee may cancel a helicopter response at any time prior to patient transport through PSC or by direct communication to the responding helicopter.

XIV. GROUND PROVIDER RESPONSIBILITIES

- A. The IC or designee shall assure Base Hospital contact is made as soon as possible to provide early notification of patient arrival.
- B. A ground ambulance paramedic who accompanies a patient in a rescue aircraft must assure the presence of appropriate medical equipment and must obtain orientation to the aircraft and to medical air transport procedures prior to transport.



XV. HELICOPTER RENDEZVOUS

If a helicopter rendezvous is deemed appropriate, including the consideration of added transport time, a heli-spot (rendezvous site) as close as possible to the scene should be established.

XVI. MULTICASUALTY INCIDENT (“MCI”) RESPONSES



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Detailed roles and responsibilities for EMS helicopter providers during MCI are specified in the MCI Plan. Helicopters will:

- A. Respond to an incident only when requested.
- B. Prepare to stage at closest airport or location designed by the IC.

XVII. INCIDENT REVIEW AND QUALITY IMPROVEMENT (“QI”)

- A. Helicopter providers responding to medical emergencies shall participate in LEMSA QI activities.
- B. The LEMSA maintains oversight of helicopter utilization in response to medical emergencies and coordinates with EMS system provider agencies in assuring appropriate use of helicopter resources.