



REGULATORY/ MEDICAL HEALTH SERVICES
EMERGENCY MEDICAL SERVICES

MARK A. REFOWITZ
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STEVE THRONSON
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REGULATORY/MEDICAL SERVICES

DENISE FENNESSY
CHIEF OF OPERATIONS
REGULATORY/MEDICAL SERVICES

TAMMI McCONNELL MSN, RN
EMS ADMINISTRATOR

405 W FIFTH STREET, SUITE 301A
SANTA ANA, CALIFORNIA 92701
TELEPHONE: 714- 834-3500
FAX: 714- 834-3125

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TO: ORANGE COUNTY EMS AGENCY DISTRIBUTION LIST

FROM: SAM J. STRATTON, MD, MPH
MEDICAL DIRECTOR, ORANGE COUNTY EMS AGENCY

SUBJECT: PREHOSPITAL EMS AIR RESCUE

A number of concerns and questions have recently been forwarded to Orange County EMS (OCEMS) related to EMS helicopter rescue in Orange County. The aim of this memorandum is to address the primary concerns that have been raised regarding EMS air rescue.

The following California Regulations and local policies apply to prehospital EMS air rescue in Orange County:

1. California Code of Regulations, Title 22 (Social Security), Div 9, Chpt 8: Prehospital EMS Air Regulations (Effective Date January 1, 2016).
2. Orange County EMS Agency Policy # 730.15: Ambulance Rules and Regulations; Air Rescue-BLS and ALS Air Rescue Service Provider Criteria (Effective Date April 1, 2015).
3. Orange County EMS Agency Policy # 325.05: Air Rescue Unit Inventory (Effective Date April 1, 2016).

OCEMS is the "Authorizing EMS agency" for EMS aircraft utilized within the Orange County "Jurisdiction of origin" (CA Title 22, Div 9, Chpt 8, sec 100289 and 100290). EMS aircraft includes air ambulances and all categories of rescue aircraft (CA Title 22, Div 9, Chpt 8, sec 100279).

The following are questions and replies:

1. What EMS air services are available in Orange County?

Reply:

Two categories of EMS air service are available:

1. Primary service of helicopter ambulance service (ALS-nurse staffed configuration).
2. Secondary helicopter rescue services [both basic life support - EMT (BLS) and advanced life support – paramedic (ALS)].

In addition, fixed wing medical transport services regulated by the U.S. Federal Aviation Administration operate from John Wayne Airport.

2. How does OCEMS define EMS air rescue?

Reply:

EMS air rescue is appropriate use of a hoist (electric cable-lift, suspended from a hovering helicopter) to extract an ill or injured person from a remote location where landing a helicopter is not safe or possible. Rescue of a stranded person who is not ill or injured is not included as EMS air rescue.

The following is the broader California legal definition of “rescue aircraft”:

CA Title 22, Div 9, Chpt 8 § 100281. Rescue Aircraft: *“Rescue aircraft” as used in this Chapter means an aircraft whose usual function is not prehospital emergency patient transport but which may be utilized, in compliance with local EMS policy, for prehospital emergency patient transport when use of an air or ground ambulance is inappropriate or unavailable. Rescue aircraft includes ALS rescue aircraft, BLS rescue aircraft and Auxiliary rescue aircraft.*

3. Who are authorized prehospital EMS air rescue providers in Orange County?

Reply:

Four providers deliver Orange County EMS air rescue:

1. Orange County Fire Authority (ALS and BLS)
2. Orange County Sheriff’s Department (ALS and BLS)
3. U.S. Coast Guard (military medic – ocean and shore rescue)
4. Los Angeles County Fire Department (ALS and BLS through mutual aid in North Orange County)

4. Who sets the standards for EMS air rescue?

Reply:

OCEMS considers the U.S. Coast Guard National Search and Rescue Academy standards as published in the U.S. Coast Guard manual titled, *“Helicopter Rescue Techniques: Civilian Public Safety and Military Rescue Operations”*, the standard for air rescue. California Regulations, Title 22, Chapter 8 (*Prehospital EMS Aircraft Regulations*) provide legal standards for EMS air rescue operations.

5. How is the need for an EMS air rescue response determined and coordinated?

Reply:

This is an operational determination outside the authority of OCEMS; the decision to deploy and coordinate an air rescue mission is made by on-scene command staff. When a hoist extraction is not required, an air ambulance (currently Mercy Air) is required, by Regulations, to be dispatched to load the patient from a landing site. If Mercy Air is not available for an emergency air ambulance transport or cannot land at a site, an available air rescue unit can be considered to expedite moving a patient to hospital care.

6. How is it determined which EMS air rescue unit will be deployed for an air rescue mission?

Reply:

This again is an operational determination outside the authority of OCEMS and a decision made by on-scene command staff. OCEMS is responsible for medical oversight and EMS system integration of air rescue units operating within the OCEMS jurisdiction.

7. Can an ALS ground unit transfer care of a patient to a BLS staffed air rescue unit?

Reply:

Yes, an ALS ground unit may transfer care to a BLS staffed air unit (as opposed to standards required for ground operations). Ideally, when a patient has been managed using an ALS procedure (for example, narcotic pain medication) the ground paramedic boards the helicopter and escorts the patient to the receiving facility. But, the decision to transfer care from an ALS ground unit to a BLS air unit is one that is an appropriate option for on-scene command staff to consider and is a special situation addressed in California Regulations:

CA Title 22, Div 9, Chpt 8, sec 100302(e): In situations where the medical flight crew is less medically qualified than the ground personnel from whom they receive patients they may assume patient care responsibility only in accordance with policies and procedures of the requesting local EMS agency.

8. Is it appropriate for an EMS air rescue unit to transport a patient directly to a receiving hospital?

Reply:

Yes. Direct hospital transport or handoffs to a ground unit for transport are options available to on-scene command staff. Common practice has been for air rescue units to transfer care to ground units once a patient has been extracted from a remote location. This practice is based on the concept of an air rescue functioning in the same manner as a ground paramedic assessment unit (PAU). After review of air rescue service in different California jurisdictions, it is realized that air rescue transport direct to a receiving center is the more common practice. To limit time to hospital evaluation and care, and for potential safety reasons, transport directly to a receiving hospital is an appropriate consideration for an air rescue unit.

9. What are the appropriate receiving centers for EMS air rescue units when they transport?

Reply:

Any of the three Orange County Adult Trauma Centers is most appropriate as a receiving center for air rescue traffic that is directly flown in. These centers have landing pads to accommodate helicopter traffic and they provide multiple categories of medical specialty services. Preferably, burn victims should be flown to UCI Medical Center or Orange County Global Medical Center, Santa Ana where burn unit services are provided.

10. Who is responsible for monitoring EMS air rescue events?

Reply:

OCEMS has California Regulatory responsibility for assuring medical quality and EMS system coordination for air rescue operations. Each EMS air rescue event within the county is reviewed by OCEMS using the OC-MEDS data system and documents provided by field providers (dispatch and scene reports) to assure medical accountability. Field operations and command are reviewed by air rescue providers to assure consistency with operational annexes and procedures, interagency communication and command, and public safety.