



COUNTY OF VENTURA		EMERGENCY MEDICAL SERVICES
HEALTH CARE AGENCY		POLICIES AND PROCEDURES
Policy Title: Ventura County Stroke and STEMI Committees		Policy Number 107
APPROVED: Administration:	 Steve L. Carroll, Paramedic	Date: December 1, 2019
APPROVED: Medical Director:	 Daniel Shepherd, M.D.	Date: December 1, 2019
Origination Date:	August 9, 2018	Effective Date: December 1, 2019
Date Revised:	August 9, 2018	
Date Last Reviewed:	October 10, 2019	
Review Date:	October 31, 2022	

I. Committee Name

The name of these committees shall be the Ventura County (VC) Stroke Committee and the VC STEMI Committee.

II. Committee Purpose

The purpose of these committees shall be to provide input to the VC Emergency Medical Services (EMS) Medical Director and VC EMS administration on matters pertaining to the VC Stroke Specialty System and the VC STEMI Specialty System.

III. Membership

A. Voting Membership

Voting membership in the committee shall be composed of 2 representatives (see chart below) Alternatives will be considered on a case by case basis.

Type of Organization	Member	Member
Acute Stroke Centers (ASC)	Stroke Coordinator	Physician
Non-ASC receiving centers	ED Manager or PCC	Physician
STEMI Receiving Centers	STEMI Coordinator	Physician
STEMI Referral Hospitals	ED Manager or PCC	Physician
Fire	Clinical manager or QI director	Senior Administrator or Medical Director

Ambulance Companies	Clinical manager or QI manager	Senior Administrator or Medical Director
VCEMSA	Administrator	Medical Director

B. Non-voting Membership

Non-voting members of the committee shall be composed of stakeholders from local agencies.

C. Membership Responsibilities

Representatives to the Stroke Committee and STEMI Committee represent the views of their agency. Representatives should ensure that agenda items have been discussed/reviewed by their agency prior to the meeting.

D. Voting Rights

Designated voting members shall have equal voting rights.

E. Attendance

1. Members shall remain as active voting members by attending 75% (Stroke) and 66% (STEMI) of the meetings in a (calendar) year. If attendance falls below these percentages, the organization administrator will be notified, and the member may lose the right to vote.
 - (a) Members may have a single designated alternate attend in their place, no more than two times (Stroke) and one time (STEMI) per calendar year.
 - (b) Agencies may designate one representative to be able to vote for both representatives, no more than two times (Stroke) and one time (STEMI) per calendar year.
2. The member whose attendance falls below these percentages, may regain voting status by attending two consecutive meetings.
3. If meeting dates are changed or cancelled, members will not be penalized for not attending.

IV. Officers

- A. The chairperson of the Stroke Committee and the STEMI Committee is the VCEMSA Medical Director. The chairperson shall perform the duties prescribed by the guidelines outlined in this policy.

V. Meetings

A. Regular Meetings

The Stroke Committee will meet quarterly, and the STEMI Committee will meet once every 4 months. VCEMS will prepare and distribute the meeting agenda no later than one week prior to a scheduled meeting.

B. Special Meetings

Special meetings may be called by the VC EMS Medical Director, VC EMS Administrator or Public Health Director. Except in cases of emergency, seven (7) days' notice shall be given.

C. Quorum

The presence a simple majority (1/2 of committee membership plus 1) of voting members shall constitute a quorum. The presence of a quorum at the beginning of the meeting shall allow the committee to continue to do business until adjournment, regardless of the number of members who leave during the meeting.

VI. Task Forces and Ad-hoc Committees

The VC EMS Medical Director (committee chair), VC EMS Administrator, or Public Health Director may appoint task forces or ad-hoc committees to make recommendations to the Stroke or STEMI Committee on particular issues. The person appointing the task force or ad-hoc committee will name the chair. A task force or ad-hoc committee shall be composed of at least three (3) members and no more than seven (7) individuals. Persons other than voting members may be appointed to task forces or ad-hoc committees.

VII. Calendar Year

The Stroke and STEMI Committee will operate on a calendar year

VIII. Parliamentary Authority

The rules contained in the current edition of Robert's Rules of Order, newly revised, shall govern the organization in all cases to which they are applicable and in which they are not inconsistent with these guidelines, and any special rules of order the Stroke Committee may adopt.

IX. Submission of Agenda Items

Agenda items shall be received by the Ventura County EMS Office 14 days before the meeting it is to be presented. Items may be submitted by US mail, fax or e-mail and must include the following information:

- A. Subject
- B. Reason for request
- C. Description/Justification
- D. Supporting medical information/other research as applicable
- E. List of affected VC EMS policies, if a requested policy change
- F. Agenda Category:
 - 1. Operational
 - 2. Medical

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Multi Casualty Incident Response		Policy Number 131	
APPROVED: Administration: Steven L. Carroll, Paramedic		Date: December 1, 2019	
APPROVED: Medical Director: Daniel Shepherd, M.D.		Date: December 1, 2019	
Origination Date: September 1991		Effective Date: December 1, 2019	
Date Revised: October 10, 2019			
Review Date: October 31, 2021			

- I. **PURPOSE:** To develop a standardized protocol for Multi-Casualty Incident (MCI) response and training in Ventura County.
- II. **AUTHORITY:** California Health and Safety Code, Section 1797.151, 1798, and 1798.220. California Code of Regulations, Sections 100147 and 100169.
- III. **APPLICATION:** This policy defines the on-scene medical management, transportation of casualties, and documentation for a multi casualty incident utilizing the principles of the incident command system as outlined in the MCI Plan.
- IV. **DEFINITIONS:**
 - A. **MCI/Level I** - a suddenly occurring event that exceeds the capacity of the routine first response assignment. (3 - 14 victims)
 - B. **MCI/Level II** – a suddenly occurring event that exceeds the capacity of the routine first response assignment. (15 - 49 victims)
 - C. **MCI/Level III** - a suddenly occurring event that exceeds the capacity of the routine first response assignment. (50+ victims)
- V. **TRAINING:**

The following training will be required:

 - A. **Basic MCI Training** for fire companies, field EMS providers, and Mobile Intensive Care Nurses (MICNs).

Focus: Hands-on functions as described in the Ventura County EMS (VCEMS) basic MCI curriculum

 1. Initial basic course: 4 hours
 2. Prerequisite for the course (for fire companies and EMS providers): Introduction to the Incident Command System (ICS 100), and ICS for Single Resource and Initial Action Incidents (ICS 200). There is no prerequisite for MICNs.
 3. Course will be valid for two years
 - B. **Advanced MCI Training** for battalion chiefs, EMS managers, field supervisors, and pre-hospital care coordinators

Focus: command and major function integration as described in the VCEMS advanced MCI curriculum.

1. The advanced MCI course is divided into two modules. The morning session (module 1) is designed for new supervisory personnel and will cover specific principles of on-scene medical management, transportation of casualties and documentation for multi-casualty incidents. The afternoon session (module 2) will consist of a curriculum review and advanced MCI table top scenarios. Participants attending their initial advanced MCI course are required to attend both module 1 and module 2.
2. Initial advanced MCI training will be offered annually.
3. Initial Advanced MCI Course: 8 hours
4. Prerequisite for the Course: Introduction to the Incident Command System (ICS100), ICS for Single Resource and Initial Action Incidents (ICS 200), and National Incident Management System, an Introduction (ICS 700). Intermediate ICS for Expanding Incidents (ICS 300) is a desired prerequisite for the Advanced MCI Training, but it is not required.
5. Course will be valid for two years

C. Basic MCI Refresher Training

Focus: Overview of multi-casualty operations as described in the VCEMS MCI Basic Curriculum

1. Refresher Course: 2 hours
2. Course will be valid for two years

D. Advanced MCI Refresher Training (Module 2 of the Advanced MCI Course)

Focus: Overview of Command and Major Function Integration as described in the VCEMS Advanced MCI Curriculum

1. Refresher Course: 4 hours
2. Advanced MCI refresher course will be offered twice annually.
3. Course will be valid for two years

VI. ACTIVATION OF THE MULTI CASUALTY INCIDENT RESPONSE PLAN:

A. Report of Incident

The report of a multi casualty incident (MCI) will ordinarily be made to a Ventura County Public Safety Answering Point (PSAP) in the following manner:

1. Citizen/witness report via 9-1-1 Public Service Answering Point (fire service will activate the MCI plan).
2. Hospital personnel alert VCEMS.
3. Direct report from law enforcement, or an EMS Provider with capability to contact a PSAP.

B. Prehospital Response

1. The first responder agency or other public safety official will determine that the number and extent of casualties exceeds the capacity of the day-to-day EMS response and/or EMS system (depending on the level of the MCI) and will request their PSAP to contact

the EMS Agency and activate the MCI Plan. The Incident Commander (IC) or appropriate public safety official will request activation and/or response of any supporting public safety/service agencies which may be needed, for example:

2. Transportation resources; such as additional ambulances or buses
 - a. Ventura County Chapter American Red Cross
 - b. Public Health/EMS Emergency Preparedness Office
 - c. Disaster Medical Support Units (DMSU), Multi Casualty Unit (MCU) Trailers, or Disaster Caches
3. The IC will appoint a Patient Transportation Unit Leader or Group Supervisor, depending on the size and complexity of the MCI. The Patient Transportation Unit Leader / Group Supervisor will retain or delegate the Medical Communications Coordinator (MEDCOMM) position to communicate all casualty transportation information to the base hospital or designated VCEMS representative.

Periodically, a request will be made of involved hospitals to update their status in order to accommodate the number of casualties remaining to be evacuated from the scene. (The first responders will provide for the initial triage and treatment of casualties utilizing START and JumpSTART criteria.)

C. Ventura County Trauma System Considerations

1. For any level MCI in which a traumatic mechanism exists, the base hospital shall be the trauma center in whose trauma catchment area the incident occurred. On an MCI/Level I, patients with traumatic injuries shall be triaged utilizing the Ventura County Field Triage Decision Scheme, in addition to START triage. On an MCI/Level I, the applicable VC trauma step shall be relayed to the base hospital by MEDCOMM for all patients with traumatic injuries, in addition to START triage category, age, and gender.
2. Patients shall be transported in accordance with VCEMS 131 Attachment C - MCI Trauma Patient Destination Decision Algorithm.

D. Involved but Not Injured

1. Prehospital personnel may encounter individuals that are involved with an MCI, but not injured. These individuals do not require medical care on the scene or at a hospital but are still impacted by the events that have taken place. Personnel on scene should identify these individuals with the blue ribbon during the triage process and be prepared to provide some level of support for these individuals until such time that law enforcement or some other responsible party can take over and provide support and/or shelter.

E. Base Hospital Responsibilities

1. Upon receiving a declaration of an MCI from the field, the Base Hospital will activate the Reddinet communications tool and manage patient distribution and determine destination, while maintaining communications with MEDCOMM in the field. The management of the Reddinet MCI module on an MCI may include:
 - a. Alert all hospitals that an MCI has occurred and request that they prepare to receive casualties from the scene. This communication will include:
 - The type, size, and location of the incident.
 - The estimated number of casualties involved.
 - Advise area hospitals to be prepared to confirm their status and make preparations for the possible receipt of patients.
 - Update all hospitals periodically or when new or routine information is received. Hospitals in unaffected areas may or may not be requested to remain in a stand-by readiness mode.
 - Inform MEDCOMM of each hospital's availability and determine destination for all MCI patients.

F. Hospital Response

1. Receive/acknowledge incident information and inform hospital administration.
2. Activate the hospital's disaster/emergency response plan to an appropriate level based upon the MCI's location type and number of casualties.
3. Hospitals experiencing difficulty in obtaining needed resources to manage casualties should make needs known to the EMS Agency Duty Officer.

G. Ventura County EMS Agency

Upon receiving MCI information and a request from scene public safety personnel to activate the MCI Plan, EMS may contact the Base Hospital that MEDCOMM has communicated with during the initial phases of the MCI, and request an update before relieving the Base Hospital of this duty. The EMS Agency may then act as the medical clearinghouse and perform the following:

1. Relay all requests/information regarding hospital resource needs or surplus to the Regional Disaster Medical Health Coordinator (RDMHC) representative, when appropriate. Coordinate response of additional medical equipment and personnel.
2. Receive MCI information from PSAP and alert the appropriate VCEMS and Ventura County Health Care Agency (HCA) personnel.
3. Initiate the VCEMS Emergency Response plan to a level appropriate to the information

provided.

4. Activate the Health Care Agency – Department Operations Center, when appropriate.
5. Inform the Ventura County Sheriff's Office of Emergency Services (OES) and/or the Operational Area EOC of EMS activity, when appropriate.
6. Alert the RDMHC representative, when appropriate.
7. Request out-of-county medical resources, when necessary, with EMS/HCA management approval. Coordinate requests with OES staff and RDMHC representative.
8. Assist in the coordination of transportation resources.
9. Assist in the coordination of health care facility evacuation.
10. Communicate with hospitals, skilled nursing facilities and appropriate EOCs when warranted.
11. Assist in coordination of incident evaluations and debriefings.

H. Documentation

1. Level 1 MCI: The care of each patient will be documented using the Ventura County electronic patient care reporting system (VCePCR)
2. Level 2 and 3 MCI: At a minimum, each patient transported to a hospital shall have their care documented on a multi-casualty patient record (Policy 131, Attachment A).
 - a. The transporting agency is responsible for completion of the multi-casualty patient record. The record is designed to be completed by the transporting crew enroute to the receiving hospital.
 - b. The transporting agency retains the original of the multi-casualty patient record. A copy shall be left with the patient at the receiving hospital. The triage tag shall be attached to this copy and is included as official documentation in the patient's medical record.
 - c. The transporting agency shall distribute copies of the multi-casualty patient record to the base hospital and EMS Agency within twenty-four hours of de-mobilization of the incident.
 - d. Patients not transported from a Level II or Level III MCI, may be documented using the multi-casualty non-transport record, (Policy 131, Attachment B).
3. Ventura County EMS Approved MCI Worksheets
 - a. Ventura County EMS Providers will utilize the approved MCI worksheets described in the Basic and Advanced MCI courses and attached to this policy as

follows:

1. Form 131-C MCI Trauma Patient Destination Decision Algorithm (Policy 131, Attachment C)
 2. Form 131-1 Level 1 MCI Worksheet (Policy 131, Attachment D)
 3. Triage Count Worksheet
 4. Triage Tag Receipt Holder
 5. Bed Availability Worksheet
 6. Ambulance Staging Resource Status Worksheet
 7. Transportation Receipt Holder
4. Mobile Data Computer (MDC) Equipped Ambulances
- a. In an effort to enhance patient tracking, transport personnel operating ambulances equipped with MDC's, when able, will document the triage tag number, patient name, and destination in the comment section of the dispatch ticket on the MDC.

VII. DE-MOBILIZATION OF THE MULTI CASUALTY INCIDENT RESPONSE PLAN:

A. Prehospital de-mobilization

1. When advised by the Incident Commander (IC) at the scene, the PSAP handling communications for the incident will notify the VCEMS Duty Officer when all casualties have been removed from the MCI scene.
2. Hospitals will be notified via Reddinet that the MCI scene has been cleared.
3. Hospitals will be notified via Reddinet that casualties may still be enroute to various receiving facilities.
4. Hospitals will supply EMS with data on casualties they have received via ReddiNet, telephone, fax or RACES.
5. If involved in incident operations, VCEMS will maintain communication with all participants until all activity relevant to casualty scene disposition and hospital resource needs are appropriately addressed.
6. Depending on size of incident, VCEMS will advise all participants when VCEMS has concluded operations related to the MCI.

VIII. CRITIQUE OF THE MULTI CASUALTY INCIDENT:

- A. VCEMS Agency may conduct a post-incident analysis of the MCI at their discretion or at the request of agencies involved in the incident. All medically involved participants will be invited.

- B. VCEMS Agency may publish a written report following the post-incident analysis. The report will include minutes from the post incident analysis meeting, any summary data available, and written reports.

IX. ADDITIONAL CONSIDERATIONS

- A. Multi Casualty Incidents related to an Active Shooter event, or any other type of incident involving a heavy law enforcement presence and the need for coordinated Rescue Task Force (RTF) operations will be conducted in accordance with VCEMS Policy 628 – Rescue Task Force Operations.
- B. Additional information related to medical health operations on an MCI and/or coordination of medical health assets on an MCI or during a disaster with widespread casualties can be found in the VCEMS Multi/Mass Casualty Medical Response Plan.

**Ventura County
Emergency Medical Services Agency
MULTI-CASUALTY PATIENT RECORD**
(For use on declared Level II or Level III MCI's only)

Date:	Agency	Unit#:	Location:	Incident #:		
Patient Name: _____ Age: _____ Sex: _____ Triage Tag #: _____ <input type="checkbox"/> IMMEDIATE <input type="checkbox"/> DELAYED <input type="checkbox"/> MINOR	Injuries: _____ _____ _____	Airway: <input type="checkbox"/> Patent <input type="checkbox"/> Other (Explain) _____ Mental Status: <input type="checkbox"/> Follows Simple Commands <input type="checkbox"/> Fails to Follow Simple Commands	Cap Refill: <input type="checkbox"/> < 2 Seconds <input type="checkbox"/> > 2 Seconds Skin: <input type="checkbox"/> Normal <input type="checkbox"/> Other Resp Rate: _____ Pulse Rate: _____ B/P: _____	Tx Prior to Transport: <input type="checkbox"/> C-Spine <input type="checkbox"/> Oxygen <input type="checkbox"/> IV <input type="checkbox"/> Other (Explain) _____ _____ _____	Base Hospital: <input type="checkbox"/> LRHMC <input type="checkbox"/> VCMC <input type="checkbox"/> SJRMC <input type="checkbox"/> SVH Dest. Hosp: _____ Times: Depart: _____ Destination: _____	Comments: _____ _____ _____ _____

Receiving Hospital to Attach Triage Tag Here

PRINTED NAME

LICENSE #

SIGNATURE

Distribution: Original – Provider, Copies – Base Hospital, Receiving Hospital & EMS Agency

*Copy shall be left with Receiving Hospital at time of arrival and become part of the patient's medical record.
Transport provider to distribute completed copies to Base Hospital and EMS Agency within 24 hours of the incident.*

Ventura County
Emergency Medical Services Agency
MULTI-CASUALTY NON-TRANSPORT RECORD
(For use on declared Level II or Level III MCI's only)

Date: _____ Agency: _____ Unit #: _____ Location: _____ Fire Incident #: _____

Time: _____ Patient Name: _____ Sex: <input type="checkbox"/> Male <input type="checkbox"/> Female Age: _____ Tag #: _____	Airway: <input type="checkbox"/> Patent Mental Status: <input type="checkbox"/> Awake and Alert <input type="checkbox"/> Appropriate for Age	Skin: <input type="checkbox"/> Normal Resp: _____ Pulse: _____ B/P: _____	Treatment Provided: _____ _____ _____ <input type="checkbox"/> None Indicated	Comments: _____ _____ _____ _____	Disposition: <input type="checkbox"/> AMA Obtained <input type="checkbox"/> No AMA Obtained Other: _____ _____
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Time: _____ Patient Name: _____ Sex: <input type="checkbox"/> Male <input type="checkbox"/> Female Age: _____ Tag #: _____	Airway: <input type="checkbox"/> Patent Mental Status: <input type="checkbox"/> Awake and Alert <input type="checkbox"/> Appropriate for Age	Skin: <input type="checkbox"/> Normal Resp: _____ Pulse: _____ B/P: _____	Treatment Provided: _____ _____ _____ <input type="checkbox"/> None Indicated	Comments: _____ _____ _____ _____	Disposition: <input type="checkbox"/> AMA Obtained <input type="checkbox"/> No AMA Obtained Other: _____ _____
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Time: _____ Patient Name: _____ Sex: <input type="checkbox"/> Male <input type="checkbox"/> Female Age: _____ Tag #: _____	Airway: <input type="checkbox"/> Patent Mental Status: <input type="checkbox"/> Awake and Alert <input type="checkbox"/> Appropriate for Age	Skin: <input type="checkbox"/> Normal Resp: _____ Pulse: _____ B/P: _____	Treatment Provided: _____ _____ _____ <input type="checkbox"/> None Indicated	Comments: _____ _____ _____ _____	Disposition: <input type="checkbox"/> AMA Obtained <input type="checkbox"/> No AMA Obtained Other: _____ _____
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Printed Name

License #

Signature

Distribution: Original – Provider, Copies – Base Hospital & EMS Agency

Agency completing form will distribute completed copies to Base Hospital and EMS Agency within 24 hours of the incident.

MCI TRAUMA PATIENT DESTINATION DECISION ALGORITHM

TRIAGE ALL PATIENTS UTILIZING START TRIAGE

IMMEDIATE

DELAYED

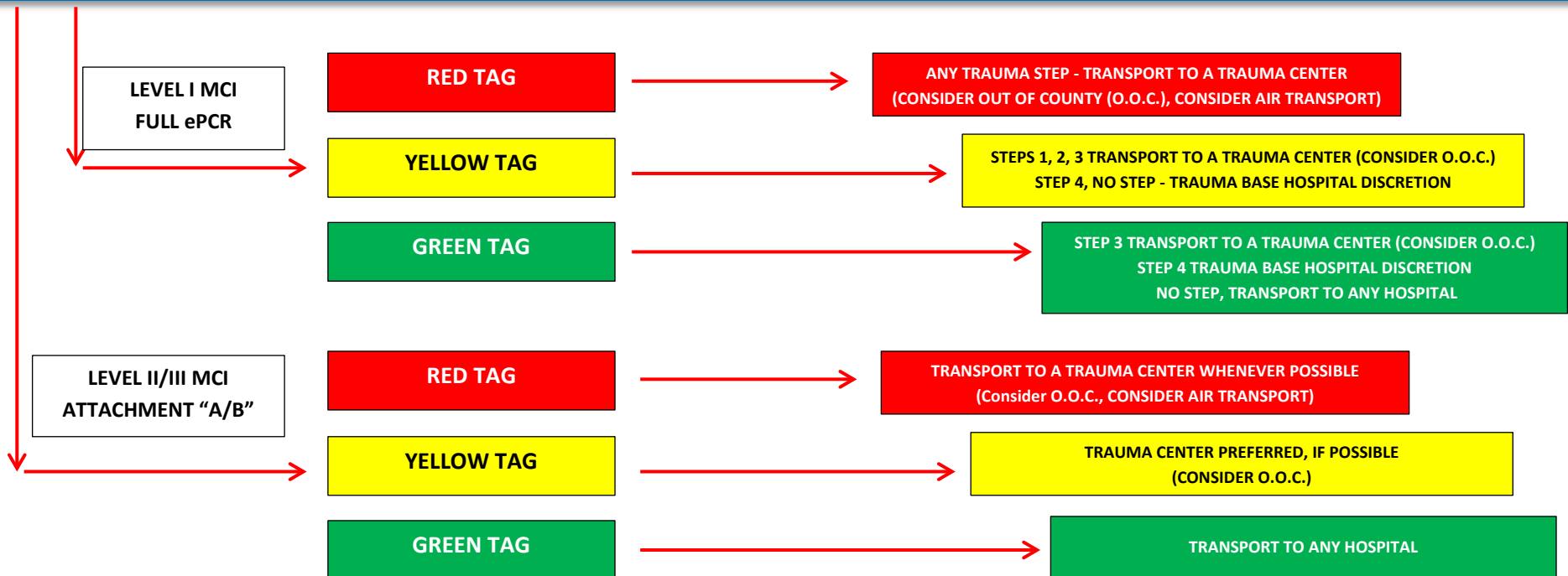
MINOR

ESTABLISH A TREATMENT AREA ON ALL MASS CASUALTY INCIDENTS

ESTABLISH A TREATMENT AREA ON ALL MASS CASUALTY INCIDENTS

PERFORM A FOCUSED EXAM AND BEGIN TO PROVIDE TREATMENT AS RESOURCES ALLOW

PATIENTS ON A LEVEL I MCI WITH TRAUMATIC INJURIES WILL ALSO BE TRIAGED INTO THE VC TRAUMA TRIAGE DECISION SCHEME



1. When trauma center capacity at local and neighboring county trauma centers has been exhausted, transport to non-trauma hospitals
2. For Level II/III MCI events, red tag patients with traumatic injuries exhibiting the following criteria should be prioritized to trauma centers:
 - Significantly decreased GCS with evidence of neurological trauma
 - Penetrating or blunt injury with signs and symptoms of shock
 - Penetrating wounds to the neck and/or torso

LEVEL 1 MCI WORKSHEET

INCIDENT: _____

DATE: _____

Person(s) filling out this form: _____

Pt #	AGE	SEX	PATIENT STATUS	VC TRAUMA STEP	INJURIES	DEST	TRANS UNIT ID	TRANS TIME	TRIAGE TAG # (Last 4)
1			I D M						
2			I D M						
3			I D M						
4			I D M						
5			I D M						
6			I D M						
7			I D M						
8			I D M						
9			I D M						
10			I D M						
11			I D M						
12			I D M						
13			I D M						
14			I D M						

	TIME	AVAIL	USED	AVAIL	USED	AVAIL	USED
VCMC							
	IMMEDIATE						
	DELAYED						
LRH	MINOR						
		AVAIL	USED	AVAIL	USED	AVAIL	USED
	IMMEDIATE						
Hospital	DELAYED						
	MINOR						
		AVAIL	USED	AVAIL	USED	AVAIL	USED
Hospital	IMMEDIATE						
	DELAYED						
	MINOR						
Hospital		AVAIL	USED	AVAIL	USED	AVAIL	USED
	IMMEDIATE						
	DELAYED						
Hospital	MINOR						
		AVAIL	USED	AVAIL	USED	AVAIL	USED
	IMMEDIATE						
	DELAYED						
	MINOR						
	Total			Total		Total	

VCEMSA Form 131-1: Level 1 MCI Worksheet

Instructions

User: Any First Responder managing patient care in a MCI/Level I, or any incident with 14 or less patients.

Incidents: Any MCI/Level I (3-15 victims)

Follow-up: Dependent on individual agency CQI policy.

The Patient Section

AGE	Enter the patient's age
SEX	Enter the Patient's sex
PATIENT STATUS	Circle the patient's Triage status
"I"	Immediate
"D"	Delayed
"M"	Minor
VC TRAUMA STEP	For MCI/Level I patients with traumatic injuries, the patient will be triaged using START and according the VC Field Triage Decision Scheme.
INJURIES	List patient's major injuries
DEST	Enter the patient's destination hospital
UNIT ID	Enter the transporting unit's Radio Identification ID
TRANS TIME	Enter the time the transporting unit left the scene enroute to the hospital
TRIAGE TAG	Enter the last four digits of the patient's triage tag

The hospital section is to be filled out during base station contact. The beds "available" and "used" sections are to be filled out as snap shots in time. These sections are not cumulative, meaning, you are not adding up the available beds and used beds each time you receive an update.

The Hospital section

TIME	The time you are given/receive hospital bed availability
HOSPITAL	The name of the hospital
AVAIL	Number of hospital beds available
USED	The number of hospital beds you are assigning at that specific time, from the beds available section
IMMEDIATE	Immediate level patients
DELAYED	Delayed level patients
MINOR	Minor level patients
TOTAL	Total number of beds used at that specific time
TOTAL BEDS ASSIGNED	This is the sum of the totals from each USED column. This number should match the number of patient transported.

BED AVAILABILITY WORKSHEET

INCIDENT: _____

DATE: _____

Person(s) Filling Out This Form: _____

TIME											TOTAL BEDS USED
	AVAIL	USED	AVAIL	USED	AVAIL	USED	AVAIL	USED	AVAIL	USED	
LRHMC											
IMMEDIATE											
DELAYED											
MINOR											
VCMC											
IMMEDIATE											
DELAYED											
MINOR											
SJPMC											
IMMEDIATE											
DELAYED											
MINOR											
SVH											
IMMEDIATE											
DELAYED											
MINOR											
CMH											
IMMEDIATE											
DELAYED											
MINOR											
PVH											
IMMEDIATE											
DELAYED											
MINOR											
SPH											
IMMEDIATE											
DELAYED											
MINOR											
OVCH											
IMMEDIATE											
DELAYED											
MINOR											

OUT-OF-COUNTY BED AVAILABILITY WORKSHEET

INCIDENT: _____

DATE: _____

PERSON(S) COMPLETING THIS FORM: _____

SANTA BARBARA COUNTY: Santa Barbara Cottage, Goleta Valley Cottage Hospital, Lompoc Valley Medical Center, Marian Medical Center, Santa Ynez Valley Cottage Hospital

LOS ANGELES COUNTY: Henry Mayo, Kaiser Woodland Hills, LAC+USC, Harbor UCLA, Northridge, Holy Cross, St. Joseph, Ronald Regan – UCLA (Westwood), West Hills, Tarzana, Cedars Sinai, Children’s Hospital Los Angeles

TIME											TOTAL BEDS USED
	AVAIL	USED	AVAIL	USED	AVAIL	USED	AVAIL	USED	AVAIL	USED	
IMMEDIATE											
DELAYED											
MINOR											
IMMEDIATE											
DELAYED											
MINOR											
IMMEDIATE											
DELAYED											
MINOR											
IMMEDIATE											
DELAYED											
MINOR											
IMMEDIATE											
DELAYED											
MINOR											
IMMEDIATE											
DELAYED											
MINOR											
IMMEDIATE											
DELAYED											
MINOR											

VCEMSA Form 131-2: Bed Availability Worksheets

Instructions

- User:* Any First Responder managing patient destination in a MCI, usually Med-Com
- Incidents:* Any MCI/Level II or MCI/Level III
- Follow-up:* Dependent on individual agency CQI policy.

This form is to be filled out during base station contact. The beds “available” and “used” sections are to be filled out as snap shots in time. These sections are not cumulative, meaning, you are not adding up the available beds and used beds each time you receive an update.

TIME	The time you are given/receive hospital bed availability
AVAIL	Number of hospital beds available
USED	The number of hospital beds you are assigning at that specific time, from the beds available section
IMMEDIATE	Immediate level patients
DELAYED	Delayed level patients
MINOR	Minor level patients
TOTAL	Total number of beds used at that specific time
TOTAL BEDS ASSIGNED	This is the sum of the totals from each USED column. This number should match the number of patients transported.

Should the need arise to list out-of-county destinations, a blank version of this form has been provided, with the hospital names missing so you can add destinations as needed.

TRANSPORTATION WORKSHEET

INCIDENT: _____ DATE: _____

Person(s) filling out this form: _____ Agency: _____

	AGENCY	AMBULANCE ID	TRIAGE TAG (Last 4)	AGE	SEX	PATIENT STATUS	DEST	TRANS TIME
1						I D M		
2						I D M		
3						I D M		
4						I D M		
5						I D M		
6						I D M		
7						I D M		
8						I D M		
9						I D M		
10						I D M		
11						I D M		
12						I D M		
13						I D M		
14						I D M		
15						I D M		
16						I D M		
17						I D M		
18						I D M		
19						I D M		
20						I D M		
21						I D M		
22						I D M		
23						I D M		
24						I D M		
25						I D M		

Instructions – Transportation Worksheet

User: Any First Responder managing patient transport (Transportation Group Supervisor), in an MCI.

Incidents: Any level MCI

Follow-up: Dependent on individual agency CQI policy.

Once you have received destinations for patients and you are loading patients into ambulances, you will fill out this form.

AGENCY	Enter the ambulance company name
AMBULANCE ID	Enter the ambulance's radio ID
TRIAGE TAG	Enter the last four digits of the patient's triage tag
AGE	Enter the patient's age
SEX	Enter the patient's sex
PATIENT STATUS	Circle the patient's Triage status
"I"	Immediate
"D"	Delayed
"M"	Minor
DEST	Enter the patient's destination hospital
TRANS TIME	Enter the time the transporting unit left the scene enroute to the hospital

Treatment Tarp Update Instructions

User: Any First Responder managing patient treatment in an MCI.
Incidents: Any Multi patient incident, Level 2 or greater.
Follow-up: Dependent on individual agency CQI policy.

The updates are snap shots in time. As your incident grows, the number of patients on your tarps may increase. As patients are transported and your incident shrinks, the number of patients on your tarps will decrease. You may be able to determine the total number of patients in your incident, by looking at the highest number of patients listed in the total column. This is when you had the most patients accounted for in you incident.

TIME	Enter time of update from treatment tarps
IMMEDIATE	Number of patient triaged as Immediate located on the treatment tarps
DELAYED	Number of patient triaged as Delayed located on the treatment tarps
MINOR	Number of patient triaged as Minor located on the treatment tarps
TOTAL	Enter total number of patients on all 3 tarps.

INSTRUCTIONS – IMMEDIATE TREATMENT AREA WORKSHEET

User: Any First Responder managing patient treatment in the Immediate Treatment Area (Immediate Area Treatment Leader), in a MCI.

Incidents: Any Level MCI

Follow-up: Dependent on individual agency CQI policy.

AGE	Enter the patient's age
SEX	Enter the patient's sex
TRIAGE TAG	Enter the last four digits of the patient's triage tag
INJURIES	List the patient's major injuries
TIME OFF	Enter the time the patient is removed from the treatment tarp over a transport team

Instructions – Delayed Treatment Area

User: Any First Responder managing patient treatment in the Delayed Treatment Area (Delayed Area Treatment Leader), in an MCI.
Incidents: Any Level MCI
Follow-up: Dependent on individual agency CQI policy.

AGE	Enter the patient's age
SEX	Enter the patient's sex
TRIAGE TAG	Enter the last four digits of the patient's triage tag
INJURIES	List the patient's major injuries
TIME OFF	Enter the time the patient is removed from the treatment tarp over a transport team

Instructions – Minor Treatment Area

User: Any First Responder managing patient treatment in the Minor Treatment Area (Minor Area Treatment Leader), in an MCI.
Incidents: Any level MCI
Follow-up: Dependent on individual agency CQI policy.

AGE	Enter the patient's age
SEX	Enter the patient's sex
TRIAGE TAG	Enter the last four digits of the patient's triage tag
INJURIES	List the patient's major injuries
TIME OFF	Enter the time the patient is removed from the treatment tarp over a transport team

Instructions: Morgue Area Manager

User: Any First Responder managing patient oversight in the Morgue Area (Morgue Area Leader), in a MCI.

Incidents: Any MCI where a morgue is established

Follow-up: Dependent on individual agency CQI policy.

AGE	Enter the patient's age
SEX	Enter the Patient's sex
TRIAGE TAG	Enter the last four digits of the patient's triage tag
NOTES	Enter any identifying information about the patient

INVOLVED/UNINJURED (BLUE RIBBON) WORKSHEET

INCIDENT: _____ DATE: _____

Person(s) filling out this form: _____ Agency: _____

#	AGE	GENDER	FIRST NAME	LAST NAME	PHONE NUMBER	TIME IN	TIME OUT
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

Instructions – Involved/Uninjured (Blue Ribbon) Worksheet

User: Any First Responder managing patient treatment in the Immediate Treatment Area (Immediate Area Treatment Leader), in a MCI.

Incidents: Any Level MCI

Follow-up: Dependent on individual agency CQI policy.

#	Pre-determined number assigned to an involved but uninjured individual.
AGE	Enter the individual's age
GENDER	Enter the individual's gender
First Name	Enter the individual's first name
Last Name	Enter the individual's last name
Phone Number	Enter the individual's best phone number for future contact/follow-up.
Time In	Time individual was contacted, or when tracking began
Time Out	Time individual was released from scene, or when tracking ended.

Instructions – Air/Ground Ambulance Coordinator Worksheet

- User:* Any First Responder managing resources in the staging area (Staging Manager), in an MCI.
- Incidents:* Any level MCI
- Follow-up:* Dependent on individual agency CQI policy.

AGENCY	Enter the ambulance company name
UNIT #	Enter the ambulance's radio ID
ALS/BLS	Write ALS for Paramedic staffed units. Write BLS for EMT staffed units
Time IN	Enter the time the ambulance arrives at staging
Time OUT	Enter the time the ambulance leaves staging

Position: Air Ambulance Coordinator

(FOG – December 2017)

Ideal Staffing: BLS Fire Company

FORMER POSITION: Ambulance Coordinator

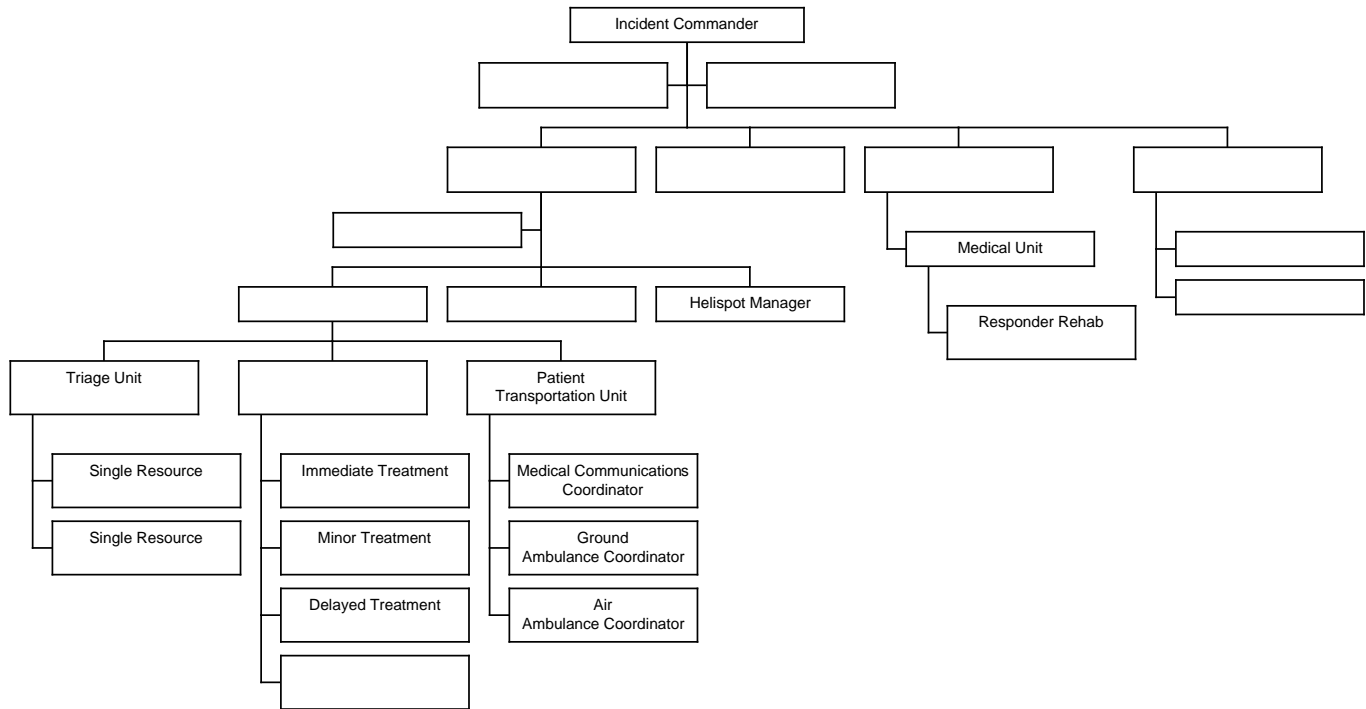
The Air Ambulance Coordinator reports to the Patient Transportation Unit Leader; communicates with MEDCOMM, Patient Loading Coordinator, and Ground Ambulance Coordinator; coordinates patient air transportation needs with the Helispot Manager:

- a. Coordinate ambulance staging and patient loading procedures at the helispot with the helispot manager
- b. Establish and maintain communications with MEDCOMM and Patient Transportation Unit Leader to determine hospital / medical facility destinations.
- c. Confirm the type of air resources and patient capacities with the helispot manager, and provide this information to MEDCOMM and patient transportation unit leader
- d. Confirm the patient destination with the air ambulance crew, and relay any diversions to MEDCOMM and Patient Transportation Unit Leader
- e. Monitor patient care and status at the helispot when patients are waiting for air transportation
- f. Maintain adequate records and Activity Log (ICS 214)

MCI Management Equipment

- 1. Obtain Ambulance Coordinator Packet, including vest and clipboard with Ambulance Staging Resource Status form.

Multi-Casualty Organization
Reinforced Response Organization



Position: Ground Ambulance Coordinator

(FOG – December 2017)

Ideal Staffing: BLS Fire Company or Ambulance Personnel (NOT A PARAMEDIC)

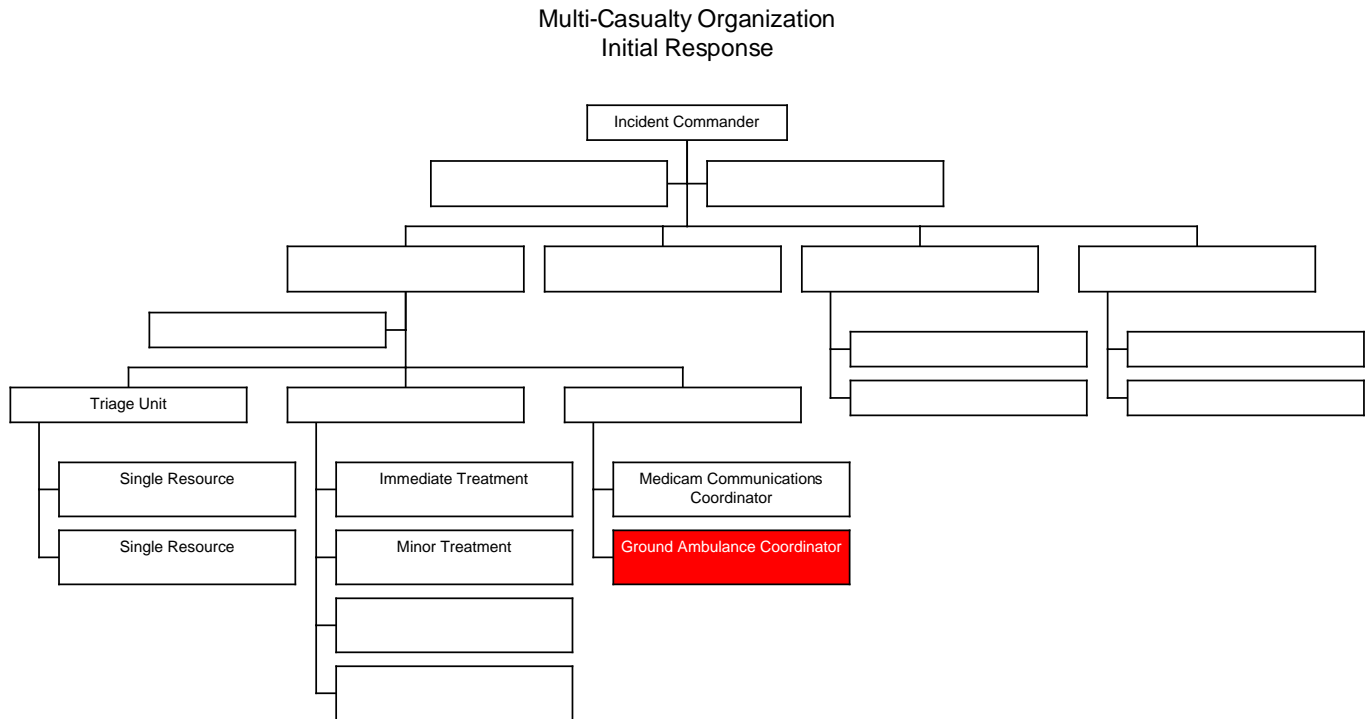
FORMER POSITION: Ambulance Staging Manager

The Ground Ambulance Coordinator reports to the Patient Transportation Unit Leader, manages the Ambulance Staging Area(s), and dispatches ambulances as requested:

- a. Establish appropriate Staging Area for ambulances
- b. Establish routes of travel for ambulances for incident operations
- c. Establish and maintain communications with the air ambulance coordinator and the helispot manager regarding air transportation assignments.
- d. Establish and maintain communications with the Medical Communications Coordinator and the Patient Loading Coordinator
- e. Provide Ambulances upon request from the Medical Communications Coordinator
- f. Ensure the necessary equipment is available in the ambulance for patient needs during transportation
- g. Establish contact with ambulance personnel at the staging area
- h. Request additional ground transportation resources as appropriate, through the established incident chain of command.
- i. Consider the use of alternate transportation resources such as buses or vans, based on VCEMS guidelines.
- j. Provide an inventory of medical supplies available at ambulance Staging Area for use at the scene.
- k. Maintain adequate staging area records
- l. Maintain Activity Log (ICS Form 214)

MCI Management Equipment

- 1. Obtain Ambulance Coordinator Packet, including vest and clipboard with Ambulance Staging Resource Status form.



Position: Medical Branch Director

(FOG – December 2017)

Ideal Staffing: Battalion Chief or EMS Agency Duty Officer

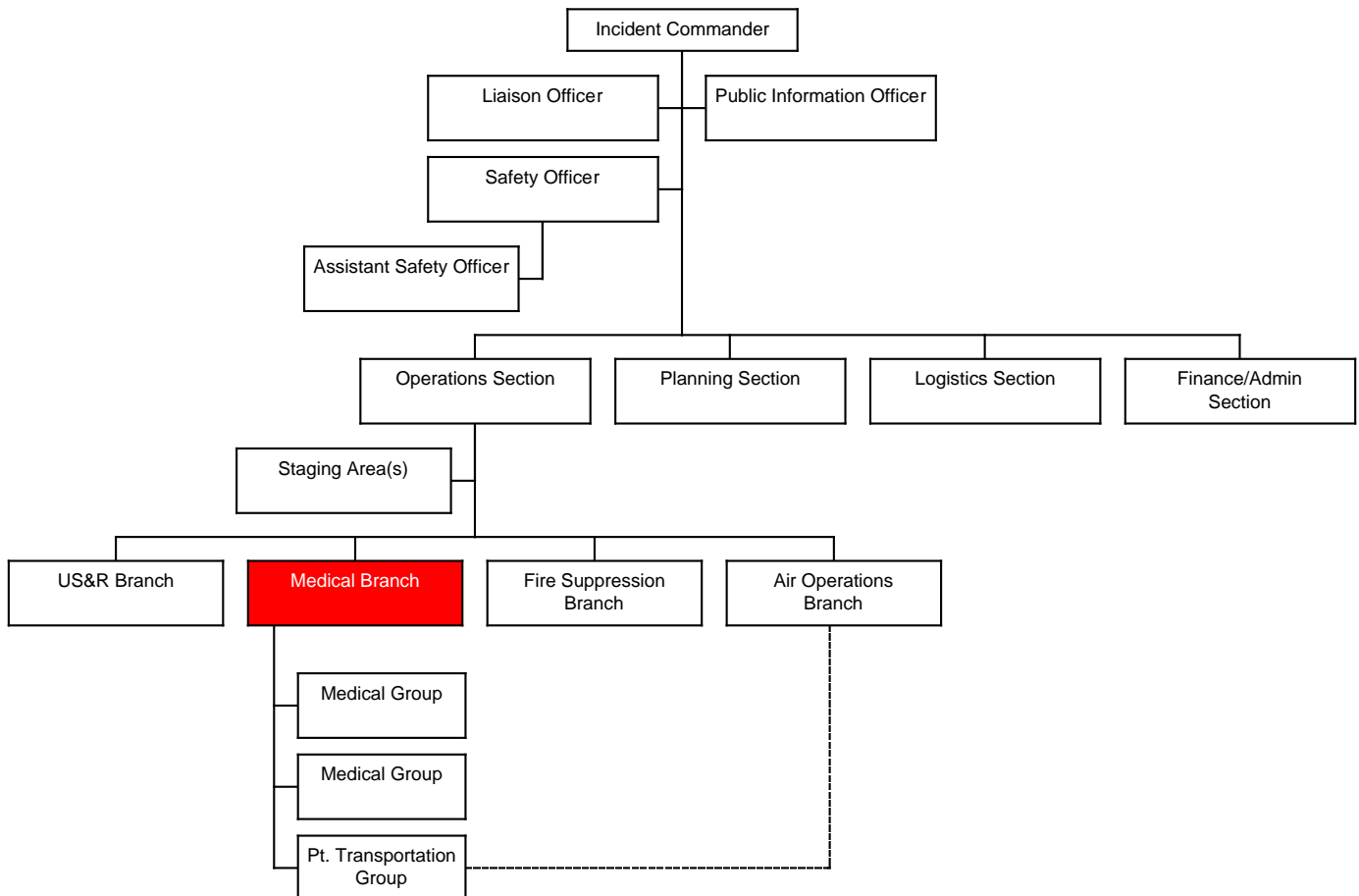
The Medical Branch Director is responsible for the implementation of the Incident Action Plan (IAP) within the Medical Branch. The Branch Director reports to the Operations Section Chief and supervises the Medical Group(s) and the Patient Transportation function (Unit or Group). Patient Transportation may be upgraded from a Unit to a Group based on the size and complexity of the incident:

- a. Review Group Assignments for effectiveness of current operations and modify as needed.
- b. Provide input to Operations Section Chief for the IAP.
- c. Supervise Branch activities and confer with the Safety Officer to assure safety of all personnel using effective risk analysis and management techniques.
- d. Report to Operations Section Chief on Branch activities.
- e. Maintain Activity Log (ICS Form 214)

MCI Management Equipment

- 1. Multi-Casualty Incident Command Worksheet

**Multi-Casualty Organization
Multi-Branch Response**



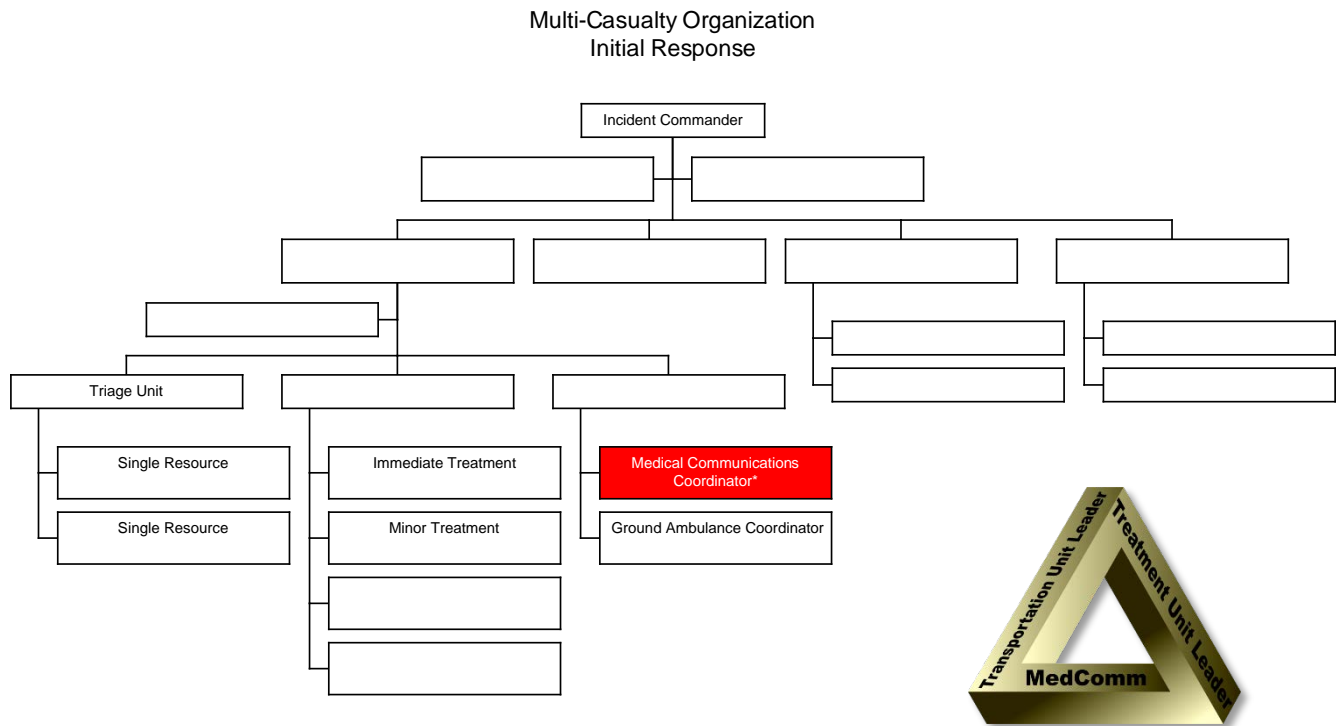
Ideal Staffing: Initial – Paramedic (Fire or Ambulance), Ongoing – Paramedic Supervisor.

The Medical Communications Coordinator (MCCC or MEDCOMM) reports to the Patient Transportation Unit Leader and establishes communications with the appropriate Base Hospital (BH) to maintain status of available hospital beds to ensure proper patient destination:

- a. Establish communications with the appropriate Base Hospital. Provide pertinent incident information and basic patient information, as outlined in VCEMS Policy 131
- b. Determine and maintain current status of hospital availability and capability
- c. Receive basic patient information and condition from Treatment Area Managers and/or Patient Loading Coordinator
- d. Coordinate patient destination with the appropriate base hospital.
- e. Communicate patient transportation needs to Ground Ambulance Coordinator based on requests from the Treatment Area Managers and/or Patient Loading Coordinator
- f. Communicate patient air transportation needs to the Air Ambulance Coordinator based on requests from the Treatment Area Managers and/or Patient Loading Coordinator
- g. Maintain Activity Log (ICS Form 214)

MCI Management Equipment

- 1. Obtain Medical Communications Coordinator packet, including vest and clipboard with Bed Availability Worksheet.
- 2. Phone (cellular or satellite) for Base Hospital Communications



****Note: Whenever staffing/resources allow, MEDCOMM should be staffed with two paramedics. First Paramedic will maintain communications with Base Hospital. Second Paramedic will act as a runner/scribe, gathering key information from other positions in the MCI organization.***

Position: Medical Group Supervisor

(FOG 2017)

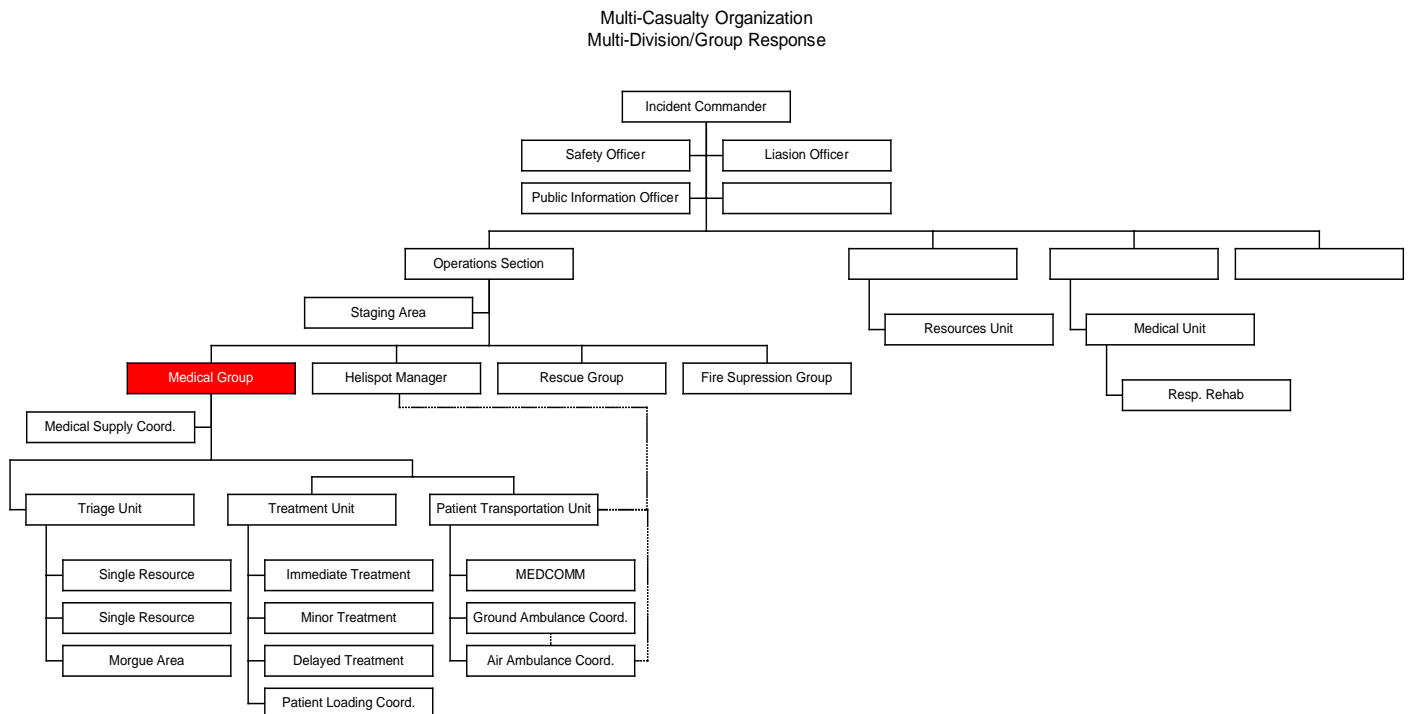
Ideal Staffing: Fire Company Officer or Paramedic Supervisor

The Medical Group Supervisor reports to the Operations Section Chief or Medical Branch Director (depending on level of organization) and supervises the various units within the Medical Group (Triage Unit, Treatment Unit, Patient Transportation Unit, and Medical Supply Coordinator). The Medical Group Supervisor establishes command and control activities within the Medical Group. In large and complex multi-casualty incidents, there may be a need to staff multiple Medical Groups:

- a. Participate in the Medical Branch / Operations Section planning activities.
- b. Establish Medical Group with assigned personnel and request additional personnel and resources sufficient to handle the magnitude of the incident.
- c. Designate Unit Leaders and Treatment Area locations as appropriate.
- d. Isolate Morgue and Minor Treatment Area from Immediate and Delayed Treatment Areas.
- e. Request law enforcement for security, traffic control, and access for the Medical Group areas.
- f. Determine amount and types of additional medical resources and supplies needed to handle the magnitude of the incident (MCI trailers, DMSU, etc.).
- g. Ensure communication with appropriate Base Hospital has occurred through the Medical Communications Coordinator, and that an MCI has been declared and initiated in Reddinet.
- h. Coordinate with assisting agencies such as law enforcement, Medical Examiner, Public Health, Behavioral Health and transport providers. Law enforcement / medical examiner shall have responsibility for crime scene and decedent management.
- i. Coordinate with agencies such as American Red Cross and utilities.
- j. Ensure adequate patient decontamination and proper notifications have been made (when applicable)
- k. Consider responder rehabilitation
- l. Maintain Activity Log (ICS Form 214)

MCI Management Equipment

1. Obtain Medical Group Supervisor packet, including vest and clipboard



Position: Medical Supply Coordinator

(FOG – 2017)

Ideal Staffing – Ambulance Company Representative (DMSU Trained), EMS Agency Representative

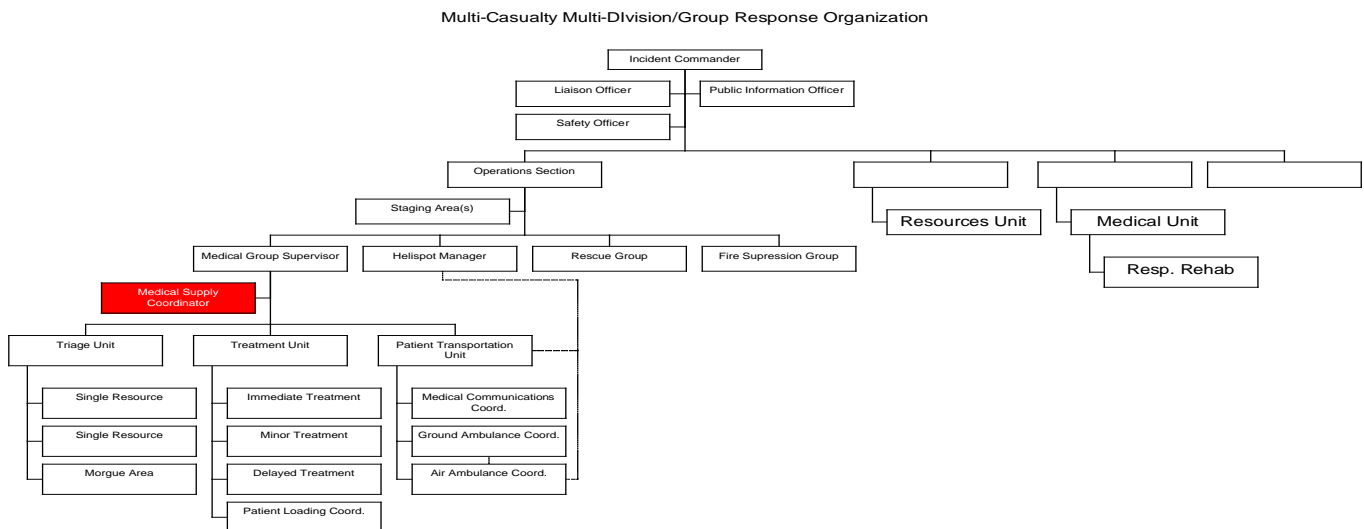
The Medical Supply Coordinator reports to the Medical Group Supervisor and acquires and maintains control of appropriate medical equipment and supplies from units assigned to the Medical Group:

- a. Acquire, distribute, and maintain status of medical equipment and supplies within the Medical Group*
- b. Request additional medical supplies*
- c. Distribute medical supplies to the Treatment and Triage Units
- d. Consider the use of a Disaster Medical Support Unit(s) (DMSU) or MCI trailer.
- e. Maintain Activity Log (ICS Form 214)

**If the Logistics Section were established, this position would coordinate with the Logistics Section Chief or Supply Unit Leader. Additional medical resources/supplies can be requested through the EMS Agency Duty Officer, as part of the Medical Health Operational Area program, when all local resources have been exhausted.*

MCI Management Equipment

1. Obtain Medical Supply Coordinator packet, including vest and clipboard.



Position: Morgue Area Manager

(FOG 2017)

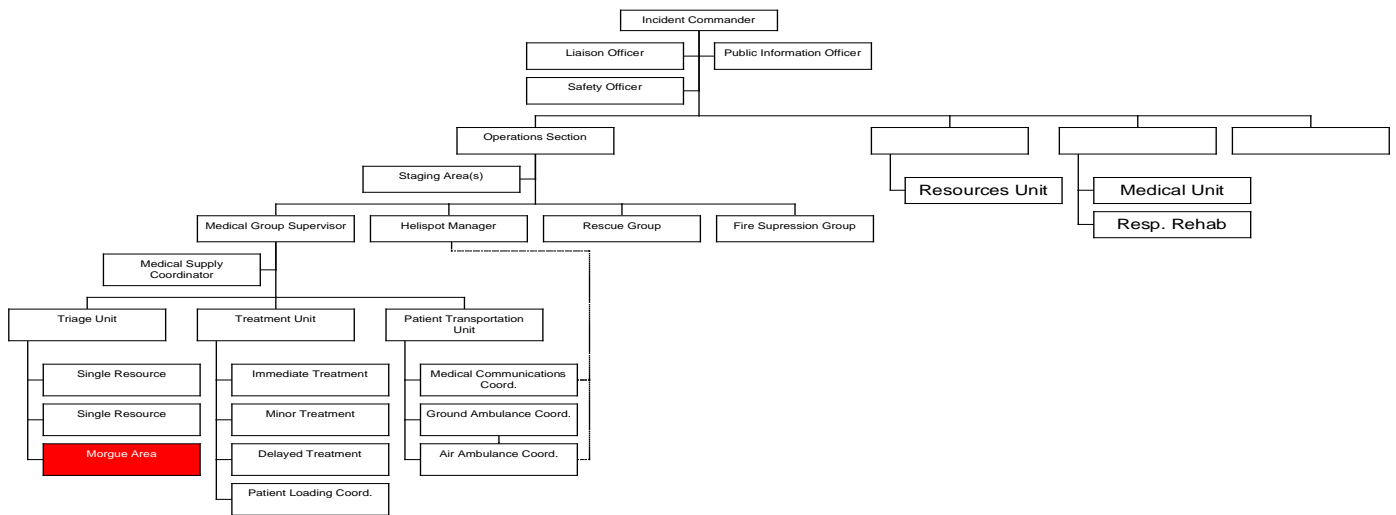
Ideal Staffing: Law Enforcement Personnel or Fire Company Personnel

The Morgue Area Manager (MCMM) reports to the Triage Unit Leader and assumes responsibility for the Morgue Area. MCMM coordinates the handling of decedents and their personal belongings with law enforcement and the Medical Examiner:

- a. Assess resource/supply needs and order as needed.
- b. Coordinate all morgue area activities with investigative authorities.
- c. Keep area separated and off limits to all but authorized personnel.
- d. Keep identity of deceased persons confidential.
- e. Maintain appropriate records.
- f. Maintain Unit/Activity Log (ICS Form 214)

MCI Management Equipment

1. Morgue Packet, including vest and Triage Tag Receipt Holder with Clipboard



**Note: MCMM may be necessary on smaller multi-casualty events that do not necessarily warrant the staffing of all positions detailed above. Organizational development and positions staffed should be based on incident complexity.*

Position: Patient Loading Coordinator

(FOG 2017)

Ideal Staffing: Paramedic (Fire Company or Ambulance)

FORMER POSITION: Treatment Dispatch Manager

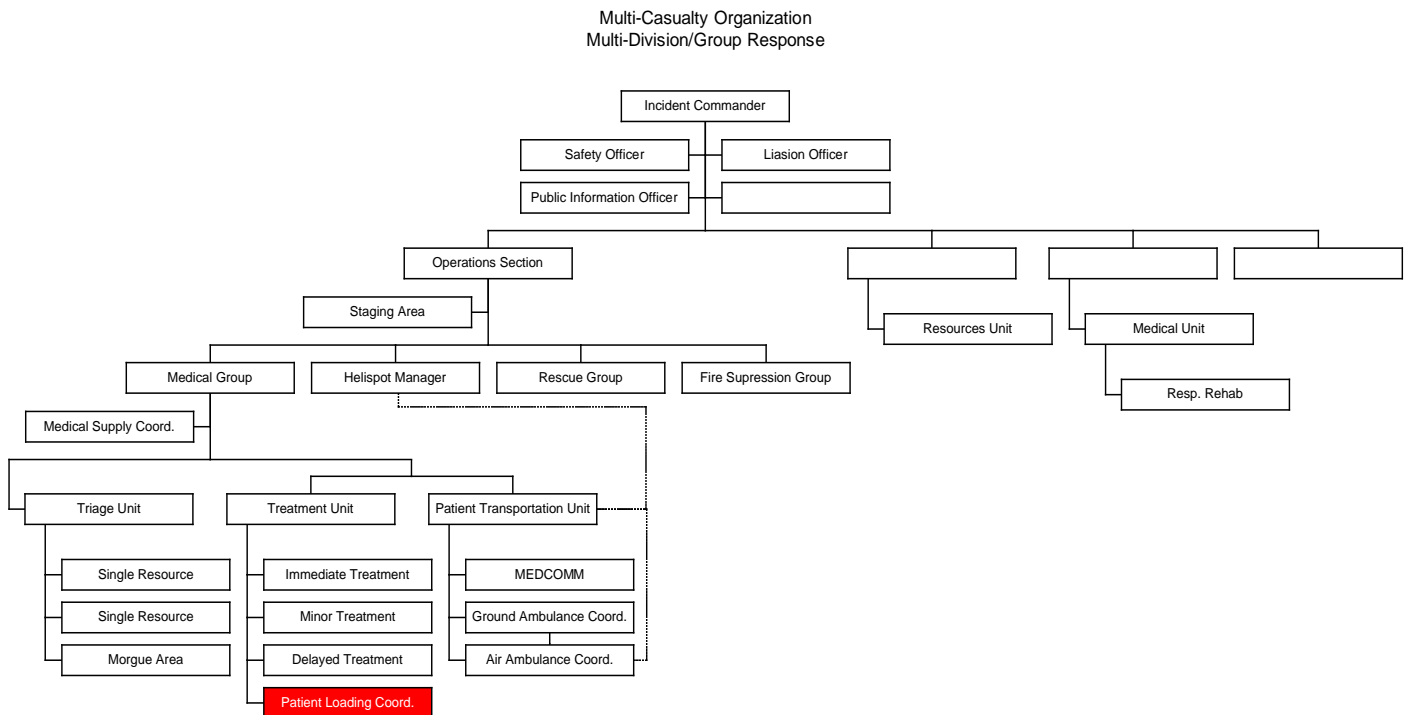
NOTE: On small to medium MCI incidents, the responsibilities of this role may be assumed by the Treatment Unit Leader.

The Patient Loading Coordinator reports to the Treatment Unit Leader and is responsible for coordinating with the Patient Transportation Unit Leader (or Group Supervisor if established), the transportation of patients out of the Treatment Areas:

- a. Establish communications with the Immediate, Delayed, and Minor Treatment Managers
- b. Establish Communications with the Patient Transportation Unit Leader.
- c. Verify that patients are prioritized for transportation.
- d. Advise Medical Communications Coordinator of patient readiness and priority for transport
- e. Coordinate transportation of patients with the Medical Communications Coordinator
- f. Ensure that appropriate patient tracking information is recorded
- g. Coordinate ambulance loading with the Treatment Managers and ambulance personnel
- h. Maintain Activity Log (ICS Form 214)

MCI Management Equipment

- 1. Patient Loading Coordinator Packet, including vest and clipboard



Position: Patient Transportation Unit Leader

(FOG – 2017)

NOTE: On medium to large MCIs, this may need to be upgraded to a Group Supervisor level assignment. The roles and responsibilities would remain the same.

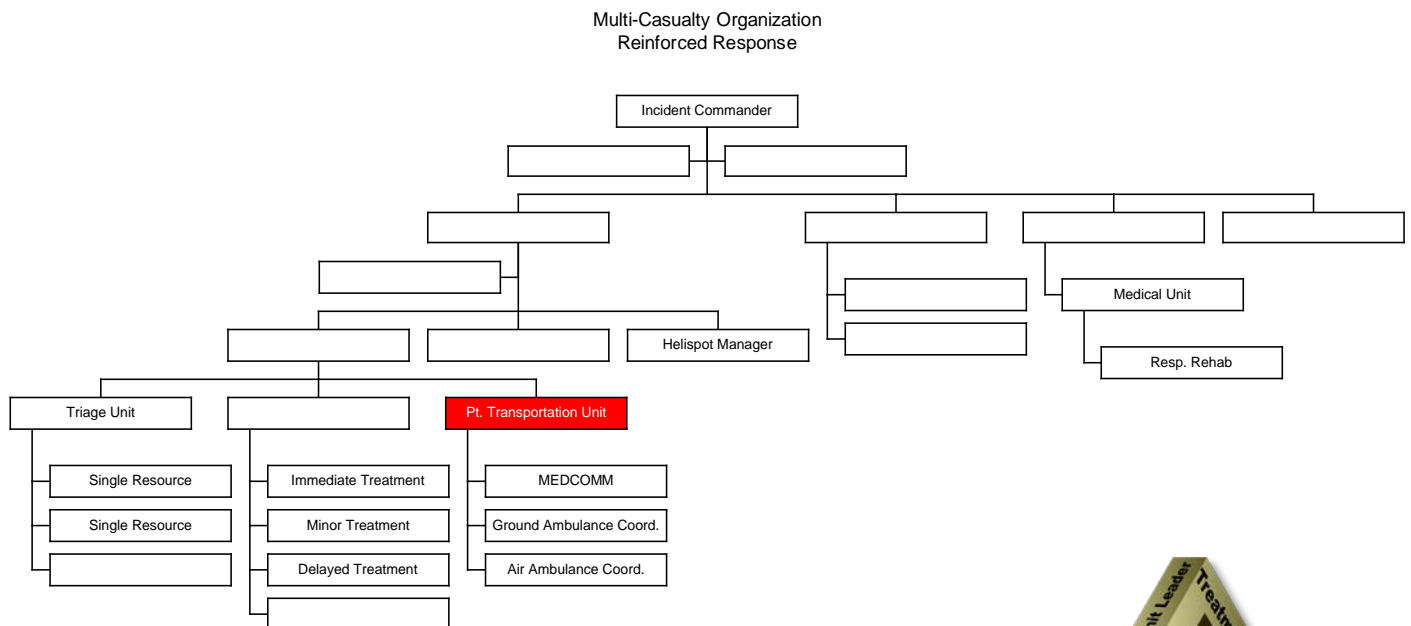
Ideal Staffing: Paramedic Supervisor or EMS Agency Duty Officer

The Patient Transportation Unit Leader reports to the Medical Group Supervisor and supervises the Medical Communications Coordinator, and the Ground/Air Ambulance Coordinators. The Patient Transportation Unit Leader is responsible for the coordination of patient transportation and maintenance of records relating to the patient's identification, condition, and destination. The Patient Transportation function may be initially established as a Unit and upgraded to a Group based on incident size or complexity:

- a. Ensure the establishment of communications with the appropriate Base Hospital
- b. Designate Ambulance Staging Area(s). *Note, these should be separate from fire/rescue/other staging areas.
- c. Direct the off-incident transportation of patients as determined by the Medical Communications Coordinator.
- d. Ensure that patient information and destinations are recorded
- e. Establish communications with Ground Ambulance Coordinator, the Air Ambulance Coordinator (if Established), and the Helispot Manager
- f. Request additional medical transportation resources (air/ground) as required
- g. Notify the Ground/Air Ambulance Coordinators of ambulance requests
- h. Coordinate the establishment of Helispot(s) with the Medical Group Supervisor, the Air Ambulance Coordinator, and the Helispot Manager
- i. Maintain Activity Log (ICS Form 214)

MCI Management Equipment

1. Patient Transportation Group Supervisor Packet, including vest and clipboard.
2. Maintain required records utilizing the Transportation Receipt Holders
3. Provide Ground/Air Ambulance Coordinators with Ambulance Staging Resource Status form(s)



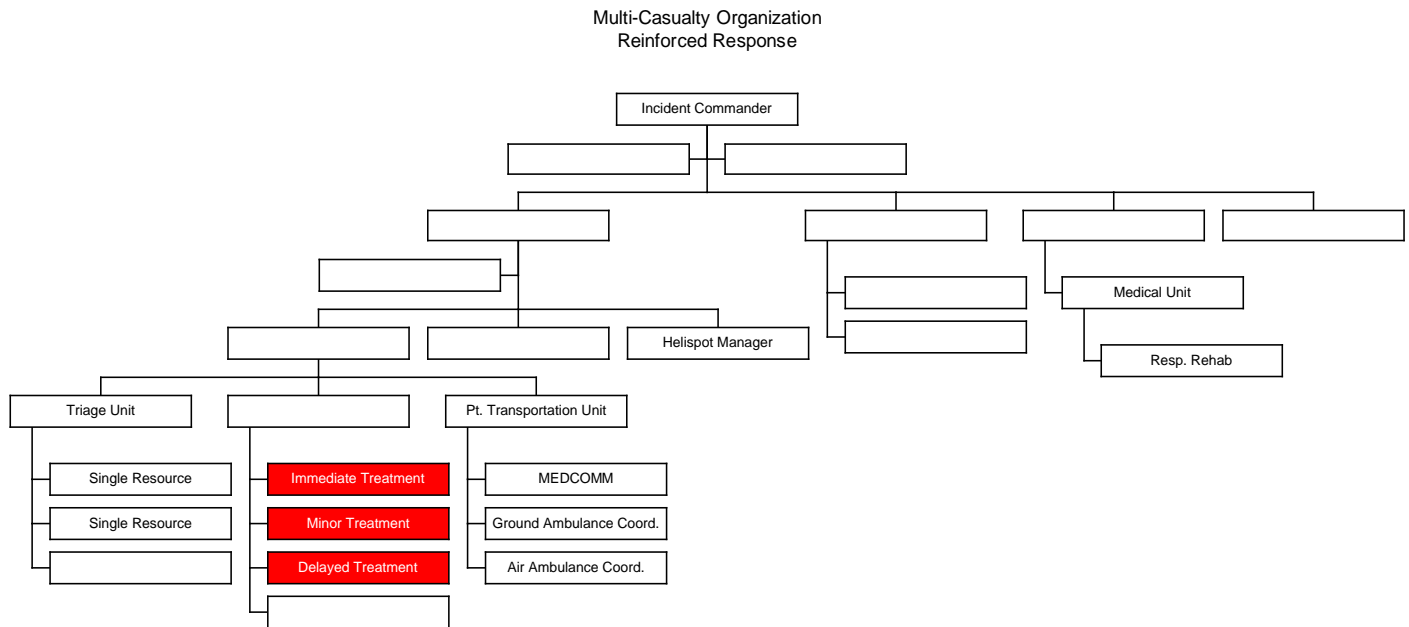
Ideal Staffing – Fire Company Officer

The Immediate, Delayed, and Minor Treatment Area Manager (MCIM, MCDM, MCMT) report to the Treatment Unit Leader and are responsible for treatment and re-triage of patients assigned to a particular treatment area:

- a. Assign treatment personnel to patients.
- b. Provide assessment of patients and re-triage/re-locate as necessary.
- c. Ensure appropriate level of treatment is provided to patients
- d. Ensure that patients are prioritized for transportation
- e. Coordinate transportation of patients with Patient Loading Coordinator
- f. Notify Patient Loading Coordinator of patient readiness and priority for transportation
- g. Ensure that appropriate patient information is recorded.
- h. Maintain Activity Log (ICS Form 214)

MCI Management Equipment

- 1. Obtain appropriate Treatment Area Managers packet, including vest and triage tag receipt holder form with clipboard.
- 2. Treatment area tarps



Position: Treatment Unit Leader

(FOG 2017)

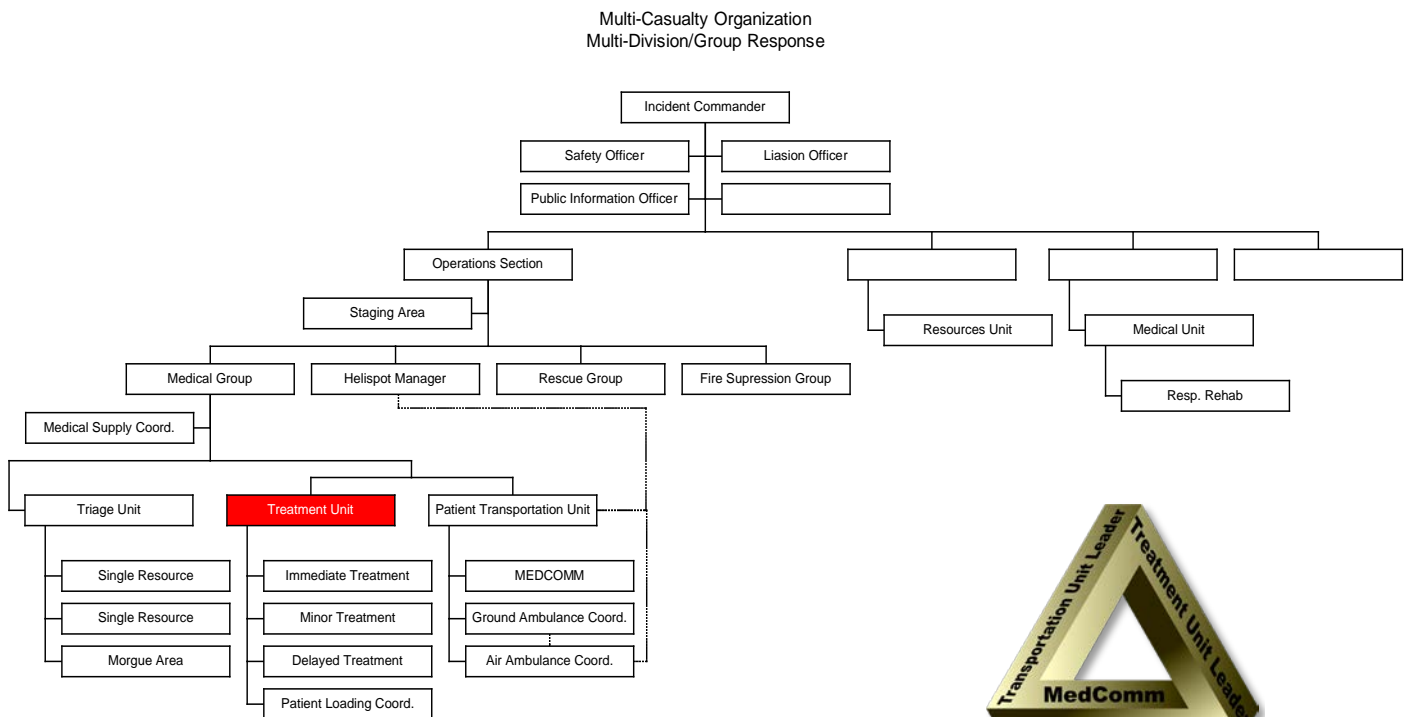
Ideal Staffing: Fire Company Officer

The Treatment Unit Leader (MCUL) reports to the Medical Group Supervisor and supervises Treatment Area Managers and the Patient Loading Coordinator. The Treatment Unit Leader assumes responsibility for treatment, preparation for transport, and the movement of patients to the loading location(s):

- a. Develop organization sufficient to handle assignment
- b. Direct and supervise Immediate, Delayed, and Minor Treatment Areas and Patient Loading Coordinator
- c. Ensure adequate patient decontamination and that proper notifications have been made (if applicable)
- d. Ensure continued assessment of patients and re-assess/re-locate as necessary throughout Treatment Areas
- e. Coordinate movement of patients from Triage Area to Treatment Areas with Triage Unit Leader
- f. Assign incident personnel to be treatment personnel (remember 3-6-9 rule)
- g. Request sufficient medical caches and supplies including DMSU or MCI trailers
- h. Establish communications and coordination with Patient Transportation Unit Leader and Medical Communications Coordinator (Golden Triangle)
- i. Responsible for the movement of patients to ambulance loading areas
- j. Give periodic status update to Medical Group Supervisor
- k. Request specialized medical resources through the EMS Agency Duty Officer (DMAT, DMORT, MRC, etc.)
- l. Maintain Activity Log (ICS Form 214)

MCI Management Equipment

1. Treatment Unit Leader Packet, including Treatment Unit Leader Count Worksheet, vest, and clipboard.
2. Treatment Area Manager vests and clipboards, as needed/staffed.
 - a. Provide vests, Triage Tag Receipt Holders and clipboards for all Treatment Area Managers, as needed/staffed.



Ideal Staffing: Fire Company Officer

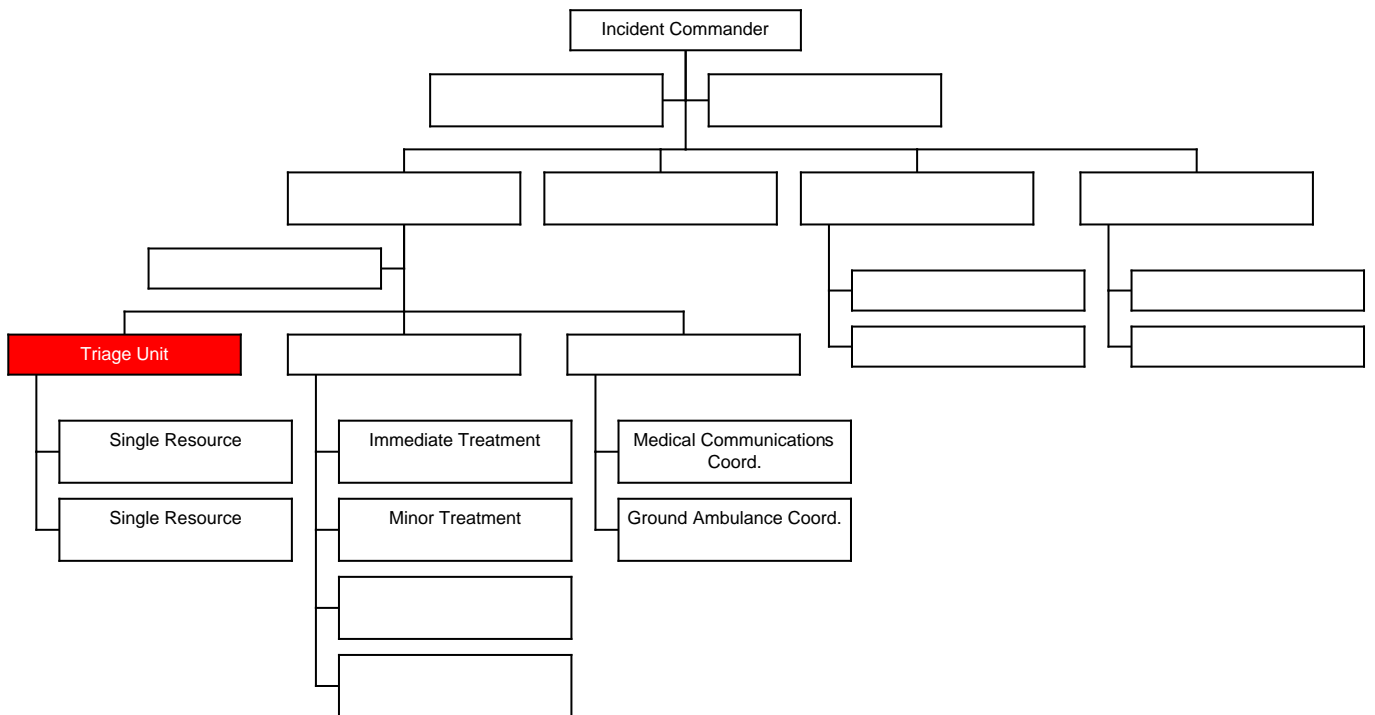
The Triage Unit Leader (MCTL) supervises triage personnel/litter bearers and the Morgue Manager, when applicable. The Triage Unit Leader assumes responsibility for providing triage management and movement of patients from the Triage Area. When triage has been completed and all the patients have been moved to the treatment areas, the Triage Unit Leader may be reassigned as needed:

- a. Develop organization sufficient to handle the assignment.
- b. Inform Medical Group Supervisor of resource needs
- c. Implement START/Jump START process
- d. Coordinate movement of patients from the triage area(s) to the appropriate treatment area(s)
- e. Ensure adequate patient decontamination and proper notifications are made, if appropriate
- f. Assign resources as triage personnel / litter bearers
- g. Give periodic status reports to Medical Group Supervisor
- h. Maintain security and control of the triage area(s)
- i. Establish a temporary morgue area in coordination with law enforcement and Medical Examiner, if necessary.
- j. Maintain Unit Activity Log (ICS 214)

MCI Management Equipment

- 1. Obtain Triage Unit Leader packet, including vest and clipboards with form(s).
- 2. Obtain triage patient count cards from triage personnel and total triage numbers on the Triage Count Worksheet found in the Triage Unit Leader packet. Total numbers are reported to Medical Group Supervisor

**Multi-Casualty Organization
Initial Response**



Modular Organizational Development

The following organizational structures are intended to provide the Incident Commander with a basic, expandable system to manage any number of patients during incidents of varying complexity. The degree of organizational structure should be driven by incident complexity and need.

As the complexity of an incident exceeds the capacity of local medical and health resources, additional response capabilities may be provided through provisions of the Public Health and Emergency Operations Manual (EOM) through the EMS Agency Duty Officer and broader Medical Health Operational Area Coordinator (MHOAC). For this reason, the EMS Agency Duty will be notified of any/all MCIs, regardless of size or complexity.

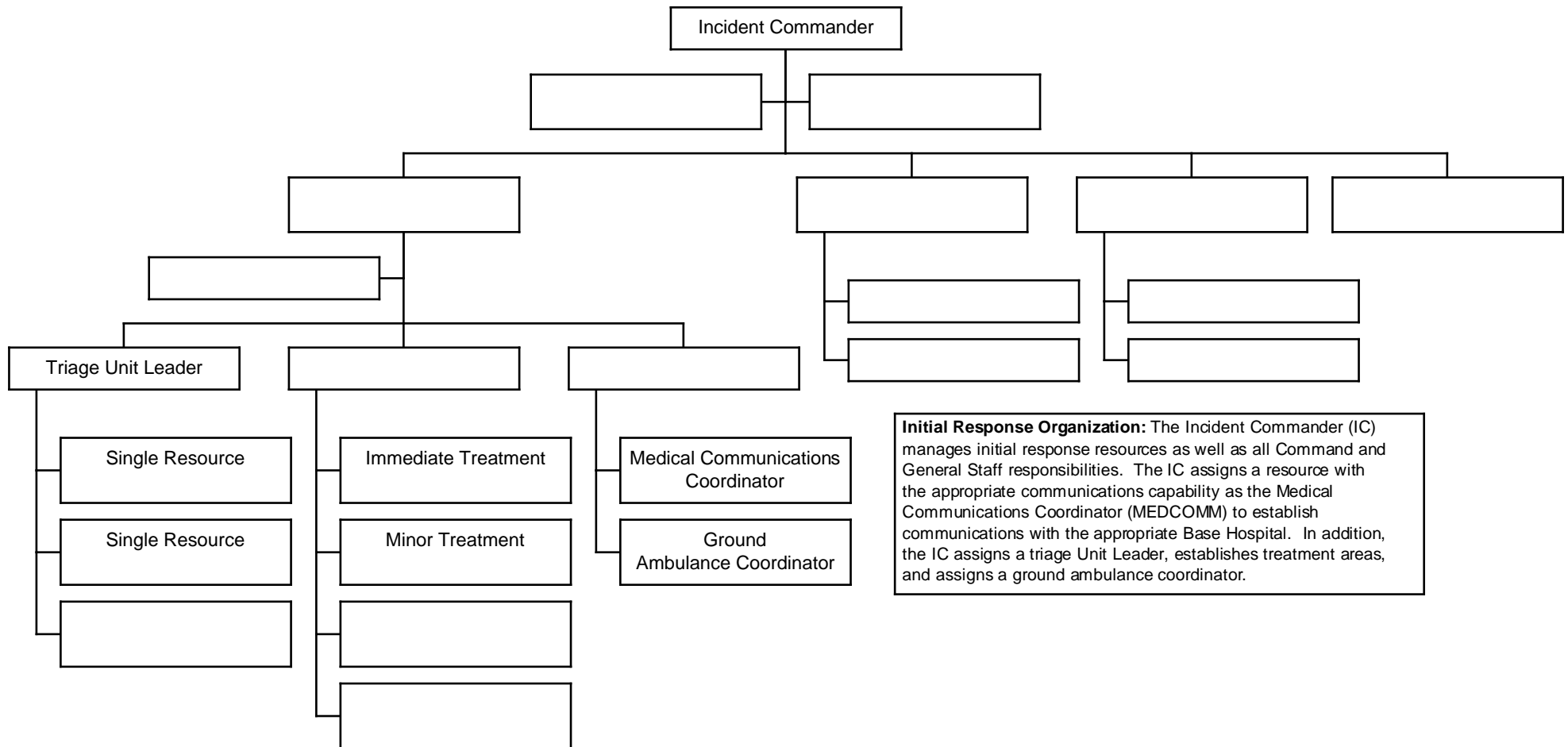
Initial Response Organization: The Incident Commander (IC) manages initial response resources as well as all Command and General Staff responsibilities. The IC assigns a resource with the appropriate communications capability as the Medical Communications Coordinator (MEDCOMM) to establish communications with the appropriate Base Hospital. In addition, the IC assigns a triage Unit Leader, establishes treatment areas, and assigns a ground ambulance coordinator.

Reinforced Response Organization: In addition to the initial response, the Incident Commander (IC) establishes a Safety Officer, a Treatment Unit Leader, and a Patient Transportation Unit Leader. An air ambulance coordinator is established based on the complexity of the air ambulance operation, and a helispot manager is established to manage the designated helispot. Immediate, Delayed, and Minor treatment areas are established and staffed (remember 3-6-9 rule). Considerations for additional resources should be considered for treatment area staffing and patient transportation. *Consult with EMS Agency Duty Officer for additional medical supplies, hospital concerns, and/or transportation needs such as Ambulance Strike Teams, DMSU, or MCI trailers.

Multi-Division/Group Response Organization: All positions within the Medical Group are now filled. A Rescue Group is established to three entrapped victims. A fire suppression group is established to control any hazardous conditions. A medical unit and responder rehabilitation are established to support incident personnel. *Consult with EMS Agency Duty Officer for additional medical supplies, hospital concerns, and/or transportation needs such as Ambulance Strike Teams, DMSU, or MCI trailers.

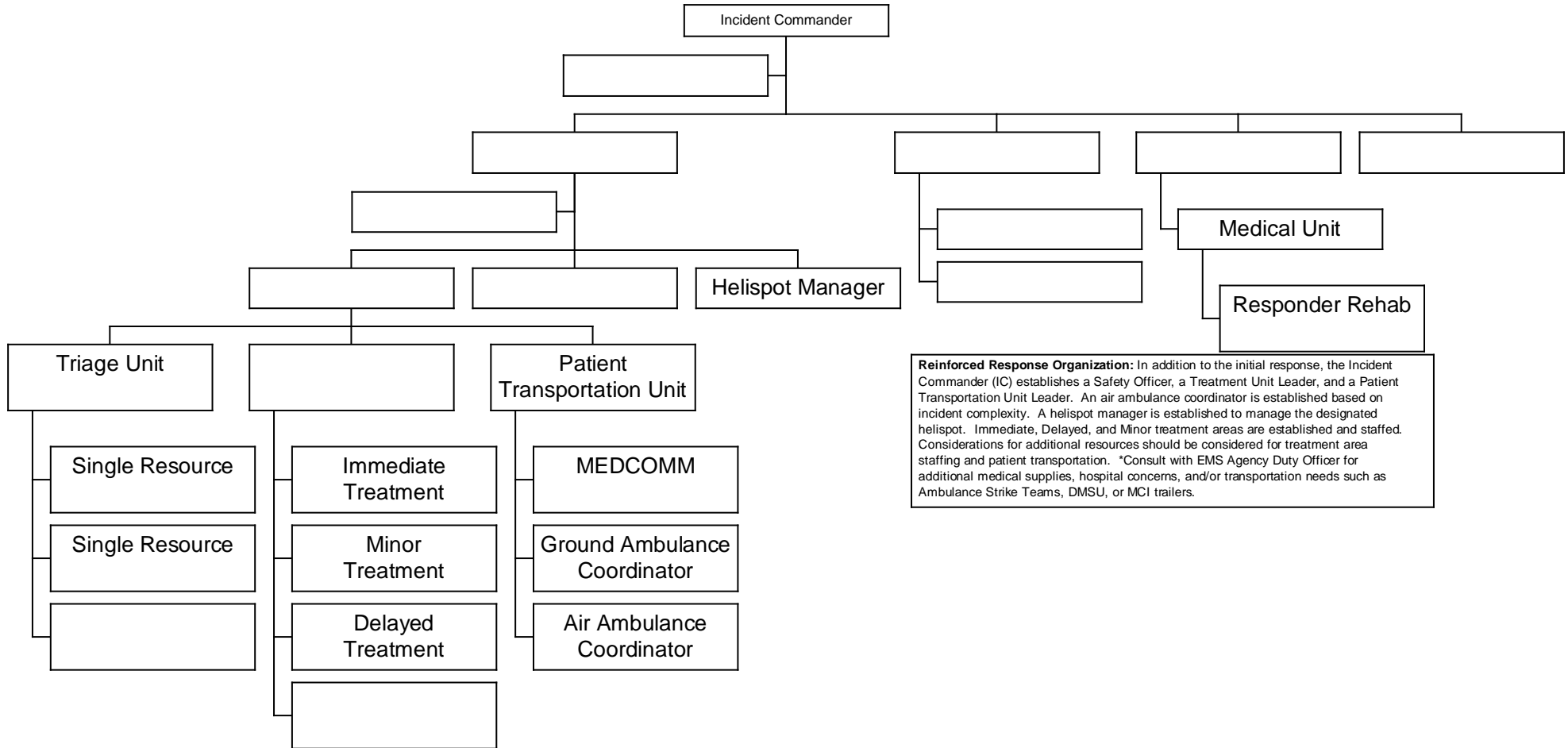
Multi-Branch Response Organization: The complete incident organization shows the Medical Branch and other branches. The Medical branch has multiple Medical Groups due to incident complexity, but only one Patient Transportation Group. This is because all patient transportation must be coordinated through one point to avoid overloading hospitals or other medical facilities. The air operations branch is shown to illustrate the coordination between the patient transportation unit and the air operations branch. *Consult with EMS Agency Duty Officer for additional medical supplies, hospital concerns, and/or transportation needs such as Ambulance Strike Teams, DMSU, or MCI trailers.

Multi-Casualty Incident Response
Initial Response Organization
FOG - 2017



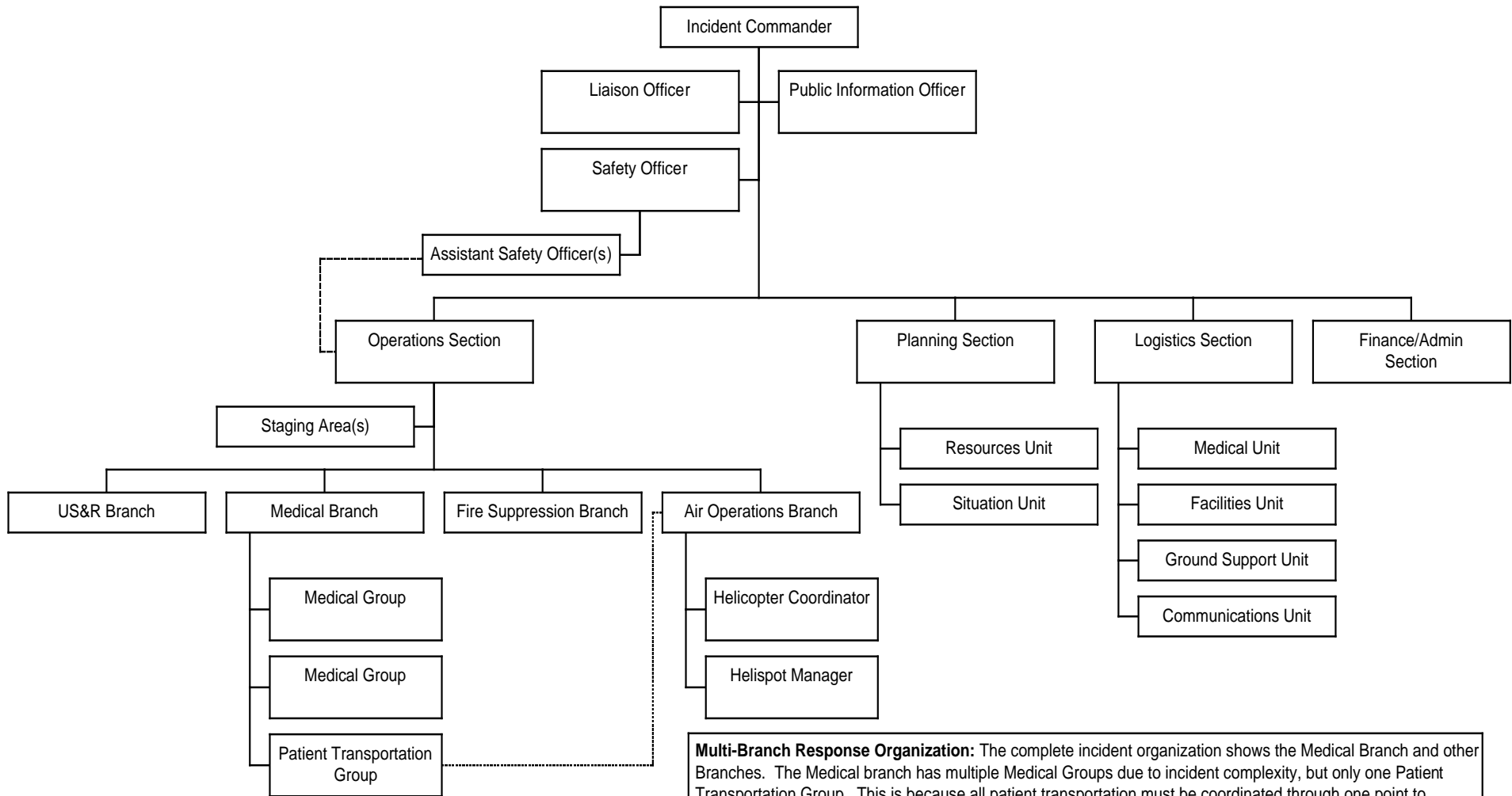
Initial Response Organization: The Incident Commander (IC) manages initial response resources as well as all Command and General Staff responsibilities. The IC assigns a resource with the appropriate communications capability as the Medical Communications Coordinator (MEDCOMM) to establish communications with the appropriate Base Hospital. In addition, the IC assigns a triage Unit Leader, establishes treatment areas, and assigns a ground ambulance coordinator.

Multi-Casualty Incident Response
Reinforced Response Organization
FOG - 2017





Reinforced Response Organization: In addition to the initial response, the Incident Commander (IC) establishes a Safety Officer, a Treatment Unit Leader, and a Patient Transportation Unit Leader. An air ambulance coordinator is established based on incident complexity. A helispot manager is established to manage the designated helispot. Immediate, Delayed, and Minor treatment areas are established and staffed. Considerations for additional resources should be considered for treatment area staffing and patient transportation. *Consult with EMS Agency Duty Officer for additional medical supplies, hospital concerns, and/or transportation needs such as Ambulance Strike Teams, DMSU, or MCI trailers.

Multi-Casualty Incident Response
Multi-Branch Organization
FOG - 2017





Multi-Branch Response Organization: The complete incident organization shows the Medical Branch and other Branches. The Medical branch has multiple Medical Groups due to incident complexity, but only one Patient Transportation Group. This is because all patient transportation must be coordinated through one point to avoid overloading hospitals or other medical facilities. The air operations branch is shown to illustrate the coordination between the patient transportation unit and the air operations branch. *Consult with EMS Agency Duty Officer for additional medical supplies, hospital concerns, and/or transportation needs such as Ambulance Strike Teams, DMSU, or MCI trailers.

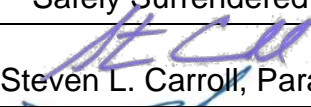

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Paramedic Scope of Practice		Policy Number: 310	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: December 1, 2019	
APPROVED: Medical Director:	 Daniel Shepherd, M.D.	Date: December 1, 2019	
Origination Date:	May, 1984	Effective Date: December 1, 2019	
Date Revised:	October 10, 2019		
Date Last Reviewed:	October 10, 2019		
Review Date:	October 31, 2021		

- I. PURPOSE: To define the scope of practice of a Paramedic accredited and practicing in Ventura County.
- II. AUTHORITY: Health and Safety Code Section 1797.172 and 1797.185. California Code of Regulations, Division 9, Chapter 4, Section 100145.
- III. POLICY:
 - A. A paramedic may perform any activity identified in the Scope of Practice of an EMT or Advanced EMT (AEMT) as defined in regulations governing those certification levels.
 - B. A paramedic trainee or paramedic accredited in Ventura County, while caring for patients in a hospital as part of their training or continuing education, under the direct supervision of a physician, registered nurse, or physician assistant, or while at the scene of a medical emergency, during transport, or during inter-facility transfer when medical direction is maintained by a physician or an MICN according to the policies and procedures approved by the Ventura County Emergency Medical Services Medical Director, may:
 1. Utilize electrocardiographic devices and monitor electrocardiograms (ECG), including 12-lead ECG.
 2. Perform pulmonary ventilation by use of oral endotracheal intubation or a Ventura County EMS approved alternative ALS airway management device.
 3. Utilize mechanical ventilation devices for continuous positive airway pressure (CPAP).
 4. Institute intravenous (IV) catheters, saline locks, needles or other cannulae (IV) lines, in peripheral veins.
 5. Monitor and access pre-existing peripheral and central vascular access lines.
 6. Institute intraosseous (IO) needles or catheters.
 7. Administer IV or IO glucose solutions and Normal Saline solutions.
 8. Obtain venous blood samples.
 9. Administer the following drugs:

- a. Adenosine
 - b. Amiodarone
 - c. Aspirin
 - d. Atropine sulfate
 - e. Bronchodilators, Nebulized beta-2 specific
 - f. Calcium chloride
 - g. Dextrose, 5%, 10%, 25%, and 50%
 - h. Diazepam
 - i. Diphenhydramine hydrochloride
 - j. Dopamine hydrochloride
 - k. Epinephrine
 - l. Heparin (Interfacility transfers only)
 - m. Glucagon hydrochloride
 - n. Hydroxocobalamin
 - o. Lidocaine hydrochloride
 - p. Magnesium sulfate
 - q. Midazolam
 - r. Morphine sulfate
 - s. Naloxone hydrochloride
 - t. Nitroglycerin preparations: oral, IV (interfacility transfers only)
 - u. Ondansetron
 - v. Pralidoxime Chloride
 - w. Sodium bicarbonate
 - x. Tranexamic Acid
10. Perform defibrillation
 11. Perform synchronized cardioversion
 12. Perform transcutaneous pacing
 13. Visualize the airway by use of the laryngoscope and remove foreign body(ies) with Magill forceps
 14. Perform Valsalva maneuver
 15. Monitor thoracostomy tubes
 16. Monitor and adjust IV solutions containing potassium ≤ 20 mEq/L.
 17. Monitor Capnography/Capnometry
 18. Perform needle thoracostomy
 19. Perform blood glucose level determination

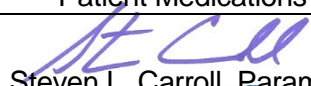
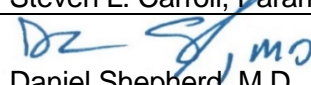
COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: SCENE CONTROL AT A MEDICAL EMERGENCY		Policy Number 600	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: December 1, 2019	
APPROVED: Medical Director:	 Daniel Shepherd, MD	Date: December 1, 2019	
Origination Date:	January 1985	Effective Date:	December 1, 2019
Date Revised:	June 11, 2015		
Date Reviewed:	May 9, 2019		
Review Date:	May 31, 2022		

- I. PURPOSE: To establish authority for scene control at a medical emergency.
- II. AUTHORITY: California Health and Safety Code, Section 1797.6(c)
- III. POLICY:
 - A. Authority for the management of the scene of an emergency shall be vested in the appropriate public safety agency having primary investigative authority.
 - B. The scene of an emergency shall be managed in a manner designed to minimize the risk of death or health impairment to the patient and to other persons who may be exposed to the risks as a result of the emergency condition, and priority shall be placed upon the interests of those persons exposed to the more serious and immediate risks to life and health.
 - C. Public safety officials shall consult emergency medical services personnel or other authoritative health care professionals at the scene in the determination of relevant risks.

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Safely Surrendered Babies		Policy Number: 619	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: 12/1/2019	
APPROVED: Medical Director:	 Daniel Shepherd, MD	Date: 12/1/2019	
Origination Date:	February 2003	Effective Date: December 1, 2019	
Revised Date:	May 9, 2019		
Last Reviewed:	May 9, 2019		
Review Date:	May 31, 2021		

- I. **PURPOSE:** This policy outlines the procedures whereby prehospital care providers accept a newborn under the California Safe Haven Law. This law as amended allows a person to surrender a minor child, less than 72 hours old to a person at any *designated* fire station, or emergency room without fear of arrest or prosecution, provided that the infant has not been abused or neglected. According to the law, “no person or entity that accepts a surrendered child shall be subject to civil, criminal, or administrative liability for accepting the child and caring for the child in the good faith belief that action is required or authorized by the bill, including but not limited to instances where the child is older than 72 hours or the person surrendering the child did not have lawful physical custody of the child”.
- II. **AUTHORITY:** 1797.220, 1798 Health & Safety Code; CCR Division 9 Chapter 4, 100175; Senate Bill 1368, Chapter 824, and Statutes of 2000; and Ventura County Board of Supervisor Resolution dated May 6, 2003.
- III. **POLICY:** Emergency Medical Services (EMS) personnel shall follow the procedures outlined in this document to ensure the surrendered infant is protected and medically cared for until delivered to the closest hospital emergency department.
- IV. **PROCEDURE:**
 - A. When an infant is surrendered to a fire station, the personnel shall notify their dispatch center of the situation.
 - B. The dispatch center will dispatch the closest paramedic transport unit.
 - C. Fire station personnel will assess the newborn and treat as needed.
 - D. Initiate first responder form.
 - E. Open the Newborn Safe Surrender Kit, (available at the fire station).
 - F. Place a confidential coded bracelet on the infant’s ankle and wrist. (Record this number on the first responder form)



- G. Provide the surrendering party the inner business reply mail envelope. This envelope contains the Safe Haven medical questionnaire (English and Spanish version), an information sheet, and a matching coded, confidential bracelet. Advise the surrendering party, providing there has been no abuse or neglect, the parent may reclaim the infant within **14 days**, by taking the bracelet back to the hospital. Hospital personnel will provide information about the baby.
- H. Upon arrival of the transport paramedic unit, the fire station personnel will provide a copy of the written report and a verbal report of the infants' care and status.
- I. If the infant appears to be greater than 72 hours old, abused or neglected, accept the infant and provide medical treatment as necessary.
- J. The paramedic transport unit will initiate base station contact and begin transport to the closest appropriate hospital emergency department.
- K. The paramedic transport unit will initiate care and treat the infant as needed.
- L. The paramedic transport unit will complete a PCR via approved Ventura County Documentation System and will record the confidential coded bracelet number.
- M. Upon arrival at the receiving emergency department, the transporting paramedic will provide a verbal and written report.
- N. Receiving hospital personnel will make verbal and written notification to the Ventura County HSA Department of Children and Family Services (DCFS).

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Patient Medications		Policy Number 624	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: December 1, 2019	
APPROVED: Medical Director:	 Daniel Shepherd, M.D.	Date: December 1, 2019	
Origination Date:	December 6, 2006		
Date Revised:	October 10, 2019		
Date Last Reviewed:	October 10, 2019	Effective Date: December 1, 2019	
Next Review Date:	October 31, 2021		

- I. PURPOSE: To establish a procedure for locating, identifying, and transporting medications in order to assist in the prompt and accurate hospital evaluation and treatment of patients.
- II. AUTHORITY: Health and Safety Code, Section 1797.220, and 1798; California Code of Regulations, Title 22, Section 100175.
- III. POLICY:
 - A. Reasonable efforts are to be made to determine the essential information for all medications: name, strength, dose, route, frequency, and time of last dose.
 - B. For patients who do not know this information, either a detailed list or the medications in their original containers will be taken with the patient to the hospital whenever possible.
 - C. Medications include all prescriptions, nutritional and herbal supplements, over-the-counter preparations, pumps, patches, inhalers, drops, sprays, suppositories, creams or ointments.
- IV. PROCEDURE:
 - A. For patients who do not know all of the essential information on all of their medications, either a list of medications with essential information or the medications in the original containers should be taken to the hospital.
 - B. If unable to locate the original labeled medication containers, pills in unlabeled containers or pills not in containers will be taken.
 - C. If the patient or family objects to turning over the medication to EMS personnel, the family must be told of their importance and instructed to take them to the emergency department promptly.
 - D. For cases involving a deceased individual with no resuscitation attempted, leave medication bottles or other drugs where they are so that the medical examiner's

investigator and/or law enforcement personnel can effectively assess and document the scene.

- E. Medications taken to the hospital are to be turned over to an identified individual hospital staff person.
- F. Hospital staff is responsible for returning the medications to patient or family.
- G. EMS personnel must document all actions in the Ventura County Electronic Patient Care Reporting (VCePCR) system, including discussing medications, taking them to the hospital, the person to whom they were turned over, and explain if unable to obtain essential information or medications.

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Hospice Patient Care		Policy Number: 629	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: December 1, 2019	
APPROVED: Medical Director:	 Daniel Shepherd, M.D.	Date: December 1, 2019	
Origination Date:	10/10/2019		
Date Revised:			
Date Last Reviewed:	Effective Date: December 1, 2019		
Next Review Date:	10/31/2021		

- I. PURPOSE: To define the management of patients enrolled in hospice.

- II. AUTHORITY: California Health and Safety Code, §1798, §1798.2; §1798.160 and §1798.170; California Code of Regulations, Title 22, §100145 and §100146

- III. POLICY: A. EMS personnel shall evaluate and treat patients enrolled in hospice programs with the goal of enabling them to remain at home and continue their desired treatment plan according to the following procedures.

- IV. PROCEDURE:
 - A. Patient Management:
 1. The responding EMS personnel will evaluate the presenting complaint, confirm that the patient is on hospice and identify the current hospice provider.
 2. A phone call shall be established between EMS and the on call hospice provider to communicate on scene findings.
 3. EMS and Hospice communication will be centered around the following goals;
 - a. Identifying a need for the hospice provider to respond to the scene
 - b. Identifying EMS interventions or actions which may facilitate patient comfort and prevent transport.
 - c. Identifying hospice resources or interventions which may facilitate patient comfort and prevent transport.

- d. Identifying the unique cases where transport is necessary for hospital treatment or diagnostics which are required in order to best continue in home treatment. In such cases the hospice provider should be able to confirm that hospice enrollment will not be cancelled as a result of transport to ED.

B. Resources / response:

1. Most often transport can be avoided and comfort optimized utilizing only the initial paramedic response along with follow up from the hospice agency.
2. EMS providers should consult with or request a response from one of the following:
 - a. Online medical direction from base hospital physician
 - b. Community paramedic response
 - c. EMS supervisor response

VCEMS General Patient Guidelines 705.00

- I. Purpose: To establish a consistent approach to patient care
 - A. Initial response
 1. Review dispatch information with crew members and dispatch center as needed
 2. Consider other potential issues (location, time of day, weather, etc.)
 - B. Scene arrival and Size-up
 1. Address Body Substance Isolation/Personal Protection Equipment (BSI/PPE)
 2. Evaluate scene safety
 3. Determine the mechanism of injury (if applicable) or nature of illness
 4. Determine the number of patients
 5. Request additional help if necessary (refer to VCEMS Policy 131)
 6. Consider spinal motion restrictions (refer to VCEMS Policy 614)
 - C. Initial assessment
 1. Airway
 - a. Open airway as needed, maintaining inline cervical stabilization if trauma is suspected
 - b. Insert appropriate airway adjunct if indicated
 - c. Suction airway if indicated
 - d. If a partial or complete Foreign Body Airway Obstruction (FBAO) is present, utilize appropriate interventions
 2. Breathing
 - a. Assess rate, depth, and quality of respirations
 - b. Assess lung sounds
 - c. If respiratory effort inadequate, assist ventilations with BVM
 - d. Initiate airway management and oxygen therapy as indicated
 3. Circulation
 - a. Assess skin color, temperature, and condition
 - b. Check distal/central pulses, including capillary refill time
 - c. Control major bleeding
 - d. Initiate shock management as indicated
 4. Disability
 - a. Determine level of consciousness
 - b. Assess pupils
 - c. Assess Circulation, Sensory, Motor (CSM)
 5. Exposure

Effective Date: December 1, 2019
Next Review Date: August 31, 2021

Date Revised: August 8, 2019
Last Reviewed: August 8, 2019



VCEMS Medical Director

- a. If indicated, remove clothing for proper assessment/treatment of injury location. Attempt to maintain patient dignity
 - b. Maintain patient body temperature at all times
 - D. Determine chief complaint. Initiate treatment per VCEMS policies/protocols
- II. History of Present Illness – including pertinent negatives and additional signs/symptoms
 - 1. Onset of current illness or chief complaint
 - 2. Provoking factors
 - 3. Quality
 - 4. Radiation
 - 5. Severity – 1 to 10 on pain scale
 - 6. Time
- III. Vital Signs
 - 1. Blood Pressure and/or Capillary Refill
 - 2. Heart Rate
 - 3. Respirations
 - 4. ALS assessments are primary survey and secondary assessment performed by a Paramedic and may include:
 - a. Cardiac rhythm
 - b. 12-lead ECG as indicated per VCEMS Policy 726
 - c. Pulse Oximetry
 - d. Capnography
- IV. Obtain history, including pertinent negatives
 - 1. Signs/Symptoms leading up to the event
 - 2. Allergies
 - 3. Medications taken
 - 4. Past medical history
 - 5. Last oral intake (as indicated)
 - 6. Events leading up to present illness
- V. Perform Detailed Physical Examination per Trauma Assessment/Treatment Guidelines
- VI. Base Hospital contact shall be made for all ALS patients in accordance with VCEMS Policy 704
- VII. Transport to appropriate facility per VCEMS guidelines
 - 1. Transport and Destination Guidelines – Policy 604
 - 2. STEMI Receiving Center Standards – Policy 430
 - 3. Stroke System Triage and Destination – Policy 451
 - 4. Post cardiac arrest with ROSC – Policy 705 (Cardiac Arrest)

Effective Date: December 1, 2019
 Next Review Date: August 31, 2021

Date Revised: August 8, 2019
 Last Reviewed: August 8, 2019



VCEMS Medical Director

5. Trauma Triage and Destination Criteria – Policy 1405
 6. Hospital Diversion – Policy 402
- VIII. Regularly assess vital signs and document all findings. Continue appropriate treatments and reassess throughout transport to assess for changes in patient status
- IX. Documentation
1. Completion of patient care documentation per VCEMS Policy 1000
 2. Document all assessment findings, pertinent negatives, vital signs, interventions/treatments (both initial and ongoing), responses to treatments, and all changes in patient status
 3. Submit ECG strips for all ALS patients
 4. Maintain patient confidentiality at all times

Effective Date: December 1, 2019
Next Review Date: August 31, 2021

Date Revised: August 8, 2019
Last Reviewed: August 8, 2019



VCEMS Medical Director

Bites and Stings	
BLS Procedures	
<p><u>Animal/insect bites:</u></p> <ul style="list-style-type: none">• Flush site with sterile water• Control bleeding• Apply bandage	
<p><u>Snake bites/envenomation:</u></p> <ul style="list-style-type: none">• Mark the edge of the wound ASAP and then every 10-15 minutes• Remove rings and constrictions• Immobilize the affected part in an elevated position• Avoid excessive activity	
<p><u>Bee stings:</u></p> <ul style="list-style-type: none">• If present, quickly remove stinger• Apply ice pack	
<p><u>Jellyfish stings:</u></p> <ul style="list-style-type: none">• Rinse thoroughly with normal saline<ul style="list-style-type: none">○ DO NOT:<ul style="list-style-type: none">• Rinse with fresh water• Rub with wet sand• Apply heat	
<p><u>All other marine animal stings:</u></p> <ul style="list-style-type: none">• If present, remove barb• Immerse in hot water if available	
<p>Administer oxygen as indicated</p> <p>All bites other than snake bites may be treated as a BLS call</p>	
ALS Standing Orders	
<p>IV access for snake bites</p> <p>Monitor for allergic reaction or anaphylaxis</p> <p>Morphine – per Policy 705 - Pain Control</p>	
Base Hospital Orders only	
<p>Consult with ED Physician for further treatment measure</p>	

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Next Review Date: July 31, 2021

Date Revised: July 11, 2019
Last Reviewed: July 11, 2019



VCEMS Medical Director

Cardiac Arrest – Asystole/Pulseless Electrical Activity (PEA)	
ADULT	PEDIATRIC
BLS Procedures	
Initiate Cardiac Arrest Management (CAM) Protocol Airway management per VCEMS policy	
ALS Standing Orders	
<p>Assess for and treat underlying cause</p> <p>IV/IO access</p> <ul style="list-style-type: none"> • PRESTO Blood Draw <p>Epinephrine* 0.1 mg/mL Administer ASAP goal ≤6 minutes</p> <ul style="list-style-type: none"> • IV/IO 1 mg (10 mL) q 6 min • May repeat x 2 for max of 3 doses during initial arrest. • If ROSC then re-arrest an additional 3 doses may be administered. <p>Normal Saline</p> <ul style="list-style-type: none"> • IV/IO bolus- 1 Liter <p>ALS Airway Management</p> <ul style="list-style-type: none"> • If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures in accordance with policy 710. 	<p>Assess for and treat underlying cause</p> <p>IV/IO access</p> <ul style="list-style-type: none"> • PRESTO Blood Draw <p>Epinephrine* 0.1mg/mL Administer ASAP goal ≤6 minutes</p> <ul style="list-style-type: none"> • IV/IO 0.01mg/kg (0.1 mL/kg) q 6 min • May repeat x 2 for max of 3 dose during initial arrest. • If ROSC then re-arrest an additional 3 doses may be administered. <p>Normal Saline</p> <ul style="list-style-type: none"> • IV/IO bolus- 20 mL/kg <p>ALS Airway Management</p> <ul style="list-style-type: none"> • If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures in accordance with policy 710.
Base Hospital Orders only	
<p>Tricyclic Antidepressant Overdose</p> <ul style="list-style-type: none"> • Sodium Bicarbonate <ul style="list-style-type: none"> ○ IV/IO – 1 mEq/kg ○ Repeat 0.5 mEq/kg q 5 min <p>Beta Blocker Overdose</p> <ul style="list-style-type: none"> • Glucagon <ul style="list-style-type: none"> ○ IV/IO – 2 mg up to 10 mg when available <p>Calcium Channel Blocker Overdose</p> <ul style="list-style-type: none"> • Calcium Chloride <ul style="list-style-type: none"> ○ IV/IO – 1 g ○ Repeat x 1 in 10 min • Glucagon <ul style="list-style-type: none"> ○ IV/IO – 2 mg up to 10 mg when available <p>History of Renal Failure/Dialysis</p> <ul style="list-style-type: none"> • Calcium Chloride <ul style="list-style-type: none"> ○ IV/IO – 1 g ○ Repeat x 1 in 10 min • Sodium Bicarbonate <ul style="list-style-type: none"> ○ IV/IO – 1 mEq/kg ○ Repeat 0.5 mEq/kg q 5 min x 2 	<p>Tricyclic Antidepressant Overdose</p> <ul style="list-style-type: none"> • Sodium Bicarbonate <ul style="list-style-type: none"> ○ IV/IO – 1 mEq/kg ○ Repeat 0.5 mEq/kg q 5 min <p>Beta Blocker Overdose</p> <ul style="list-style-type: none"> • Glucagon <ul style="list-style-type: none"> ○ IV/IO – 0.1 mg/kg up to 10 mg when available <p>Calcium Channel Blocker Overdose</p> <ul style="list-style-type: none"> • Calcium Chloride <ul style="list-style-type: none"> ○ IV/IO – 20 mg/kg ○ Repeat x 1 in 10 min • Glucagon <ul style="list-style-type: none"> ○ IV/IO – 0.1 mg/kg ○ May give up to 10mg if available <p>History of Renal Failure/Dialysis</p> <ul style="list-style-type: none"> • Calcium Chloride <ul style="list-style-type: none"> ○ IV/IO – 20 mg/kg ○ Repeat x 1 in 10 min • Sodium Bicarbonate <ul style="list-style-type: none"> ○ IV/IO – 1 mEq/kg ○ Repeat 0.5 mEq/kg q 5 min x 2
*Consult with ED Physician for further treatment measures	
<p>Additional Information:</p> <ul style="list-style-type: none"> • If sustained ROSC (> 30 seconds), activate VF/VT alarm and initiate post arrest resuscitation as outlined in Policy 733: Cardiac Arrest management and Post Arrest Resuscitation. • For termination of resuscitation, transport decisions, and use of base hospital consult reference Policy 733: Cardiac Arrest Management and Post Arrest Resuscitation. • If patient is hypothermic – only ONE round of medication administration prior to Base Hospital contact. Field determination of death is discouraged in these patients and they should be transported to the most accessible receiving facility. 	

Effective Date: December, 2019
Next Review Date: October 31, 2021

Date Revised: October 11, 2019
Last Reviewed: October 11, 2019

[Signature]
VCEMS Medical Director

Cardiac Arrest – VF/VT	
ADULT	PEDIATRIC
BLS Procedures	
Initiate Cardiac Arrest Management (CAM) Protocol Airway management per VCEMS policy	
ALS Standing Orders	
<p>Defibrillate</p> <ul style="list-style-type: none"> Use the biphasic energy settings that have been approved by service provider medical director Repeat every 2 minutes as indicated <p>IV or IO access</p> <ul style="list-style-type: none"> PRESTO Blood Draw <p>Epinephrine* 0.1 mg/mL Administer ASAP goal ≤6 minutes</p> <ul style="list-style-type: none"> IV/IO – 1 mg (10 mL) q 6min May repeat x 2 for max of 3 doses during initial arrest. If ROSC then re-arrest an additional 3 doses may be administered. <p>Amiodarone</p> <ul style="list-style-type: none"> IV/IO – 300 mg – after second defibrillation If VT/VF persists, 150 mg IV/IO in 3-5 minutes <p>Normal Saline</p> <ul style="list-style-type: none"> IV/IO bolus 1 Liter <p>ALS Airway Management</p> <ul style="list-style-type: none"> If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures in accordance with policy 710. <p>If VF/VT stops, then recurs, perform defibrillation at the last successful biphasic energy setting</p>	<p>Defibrillate – 2 Joules/kg</p> <ul style="list-style-type: none"> If patient still in VF/VT at rhythm check, increase to 4 Joules/kg Repeat every 2 minutes as indicated <p>IV or IO access</p> <ul style="list-style-type: none"> PRESTO Blood Draw <p>Epinephrine* 0.1mg/mL Administer ASAP goal ≤ 6 minutes</p> <ul style="list-style-type: none"> IV/IO – 0.01 mg/kg (0.1 mL/kg) q 6 min May repeat x 2 for max of 3 dose during initial arrest. If ROSC then re-arrest and additional 3 doses may be administered. <p>Amiodarone</p> <ul style="list-style-type: none"> IV/IO – 5 mg/kg – after second defibrillation If VT/VF-persists, 2.5 mg/kg IV/IO in 3-5 minutes <p>Normal Saline</p> <ul style="list-style-type: none"> IV/IO 20 mL/kg bolus <p>ALS Airway Management</p> <ul style="list-style-type: none"> If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures in accordance with policy 710. <p>If VF/VT stops, then recurs, perform defibrillation at the last successful biphasic energy setting</p>
Base Hospital Orders only	
<p>Tricyclic Antidepressants</p> <ul style="list-style-type: none"> Sodium Bicarbonate <ul style="list-style-type: none"> IV/IO – 1 mEq/kg Repeat 0.5 mEq/kg q 5 min <p>Torsades de Pointes</p> <ul style="list-style-type: none"> Magnesium Sulfate <ul style="list-style-type: none"> IV/IO – 2 g over 2 min May repeat x 1 in 5 min 	<p>Tricyclic Antidepressants</p> <ul style="list-style-type: none"> Sodium Bicarbonate <ul style="list-style-type: none"> IV/IO – 1 mEq/kg Repeat 0.5 mEq/kg q 5 min
<p>ED Physician Order Only</p> <p>1. History of Renal Failure/Dialysis</p> <ul style="list-style-type: none"> Calcium Chloride <ul style="list-style-type: none"> IV/IO – 1g Repeat x 1 in 10 min Sodium Bicarbonate <ul style="list-style-type: none"> IV/IO – 1 mEq/kg Repeat 0.5 mEq/kg q 5 min x 2 	<p>ED Physician Order Only</p> <p>1. History of Renal Failure/Dialysis</p> <ul style="list-style-type: none"> Calcium Chloride <ul style="list-style-type: none"> IV/IO – 20 mg/kg Repeat x 1 in 10 min Sodium Bicarbonate <ul style="list-style-type: none"> IV/IO – 1 mEq/kg Repeat 0.5 mEq/kg q 5 min x 2
Consult with ED Physician for further treatment measures*	
<p>Additional Information:</p> <ul style="list-style-type: none"> If sustained ROSC (>30 seconds), activate VF/VT alarm and initiate post arrest resuscitation as outlined in Policy 733: Cardiac Arrest management and Post Arrest Resuscitation. For termination of resuscitation, transport decisions, and use of base hospital consult reference Policy 733: Cardiac Arrest Management and Post Arrest Resuscitation If patient is <u>hypothermic</u>—only ONE round of medication administration and limit <i>defibrillation to 6 times</i> prior to Base Hospital contact. Field determination of death is discouraged in these patients and they should be transported to the most accessible receiving facility Ventricular tachycardia (VT) is a rate > 150 bpm 	

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VCEMS Medical Director

Chest Pain – Acute Coronary Syndrome

BLS Procedures

Administer oxygen if dyspnea, signs of heart failure or shock, or SpO₂ < 94%
Assist patient with prescribed Nitroglycerin as needed for chest pain

- Hold if SBP less than 100 mmHg

ALS Standing Orders

Perform 12-lead ECG

- Expedite transport to closest STEMI Receiving Center if monitor interpretation meets the manufacturer guidelines for a positive STEMI ECG and/or physician states ECG is positive for STEMI.
- Notify Base hospital within 10 minutes of monitor interpretation of a positive STEMI ECG
- Document all initial and ongoing rhythm strips and ECG changes

For continuous chest pain consistent with ischemic heart disease:

- **Aspirin**
 - PO – 324 mg
- **Nitroglycerin (DO NOT administer if ECG states inferior infarct)**
 - SL or lingual spray – 0.4 mg q 5 min for continued pain
 - No max dosage
 - Maintain SBP greater than 100 mmHg

IV/IO access

- 3 attempts only prior to Base Hospital contact

If pain persists and not relieved by NTG:

- **Morphine** – per policy 705 - Pain Control
 - Maintain SBP greater than 100 mmHg

If patient presents or becomes hypotensive:

- Lay Supine
- **Normal Saline**
 - IV/IO bolus – 500 mL -may repeat x1 for total 1000 mL.
 - Unless CHF is present

Communication Failure Protocol

One additional IV/IO attempt if not successful prior to initial BH contact

- 4 attempts total per patient

If hypotensive (SBP less than 90 mmHg) and signs of CHF are present or no response to fluid therapy:

- Epinephrine 10mcg/mL
 - 1mL (10mcg) q 2 minutes, slow IV/IO push
 - Titrate to SBP of greater than or equal to 90mm/Hg

Base Hospital Orders only

Consult ED Physician for further treatment measures

ED Physician Order Only: For ventricular ectopy [PVC's > 10/min, multifocal PVC's, or unsustained V-Tach], consider Amiodarone IV/IOPB - 150 mg in 50 mL D5W infused over 10 minutes

Additional Information:

- Refer to VCEMS Policy 735 for additional information on preparing push dose epinephrine solution.
- Nitroglycerin is contraindicated in inferior infarct or when phosphodiesterase inhibitor medications [Sildenafil (Viagra and Revatio), Vardenafil (Levitra), and Tadalafil (Cialis)] have been recently used (Viagra or Levitra within 24 hours; Cialis within 48 hours). These medications are most commonly used to treat erectile dysfunction or pulmonary hypertension. NTG then may only be given by ED Physician order
- Appropriate dose of Aspirin is 324mg. Aspirin may be withheld if able to confirm that patient has received appropriate dose prior to arrival. If unable to confirm appropriate dose, administer Aspirin, up to 324mg.

Overdose	
ADULT	PEDIATRIC
BLS Procedures	
Decontaminate if indicated and appropriate Administer oxygen and support ventilations as indicated Suspected opioid overdose with respirations less than 12/min and significant ALOC: <ul style="list-style-type: none"> • Naloxone <ul style="list-style-type: none"> ○ IN – 4 mg in 0.1 mL, may repeat X 1, Max of 8 mg ○ IM – 2 mg, may repeat X 1, Max of 4 mg 	
ALS Prior to Base Hospital Contact	
IV/IO access Suspected opioid overdose with respirations less than 12/min and significant ALOC <ul style="list-style-type: none"> • Naloxone, if not already administered by BLS personnel or if patient continues with decreased resp rate and significant ALOC <ul style="list-style-type: none"> ○ IN – 4 mg in 0.1 mL, may repeat x1, Max of 8 mg ○ IM – 2 mg q 5 min ○ IV/IO – 0.4 mg q 1min <ul style="list-style-type: none"> • Initial max 6 mg ○ May repeat as needed to maintain respirations greater than 12/min Dystonic Reaction <ul style="list-style-type: none"> • Benadryl <ul style="list-style-type: none"> ○ IV/IO/IM – 50 mg 	IV/IO access Suspected opioid overdose with respirations less than 12/min and significant ALOC: <ul style="list-style-type: none"> • Naloxone, if not already administered by BLS personnel or if patient continues with decreased resp rate and significant ALOC <ul style="list-style-type: none"> ○ IM – 0.1 mg/kg <ul style="list-style-type: none"> • Initial max of 2 mg ○ IV/IO – 0.1 mg/kg <ul style="list-style-type: none"> • Initial max 2 mg ○ May repeat as needed to maintain respirations greater than 12/min Dystonic Reaction <ul style="list-style-type: none"> • Benadryl <ul style="list-style-type: none"> ○ IV/IO/IM – 1 mg/kg <ul style="list-style-type: none"> ▪ Max 50 mg
Base Hospital Orders only	
Tricyclic Antidepressant Overdose <ul style="list-style-type: none"> • Sodium Bicarbonate <ul style="list-style-type: none"> ○ IV/IO – 1 mEq/kg Beta Blocker Overdose <ul style="list-style-type: none"> • Glucagon <ul style="list-style-type: none"> ○ IV/IO – 2 mg <ul style="list-style-type: none"> • May give up to 10mg if available Calcium Channel Blocker Overdose <ul style="list-style-type: none"> • Calcium Chloride <ul style="list-style-type: none"> ○ IV/IO – 1 g over 1 min • Glucagon <ul style="list-style-type: none"> ○ IV/IO – 2 mg <ul style="list-style-type: none"> • May give up to 10 mg if available Stimulant/Hallucinogen Overdose <ul style="list-style-type: none"> • Midazolam <ul style="list-style-type: none"> ○ IV/IO – 2 mg <ul style="list-style-type: none"> • Repeat 1 mg q 2 min as needed • Max 5 mg ○ IM – 0.1 mg/kg <ul style="list-style-type: none"> • Max 5 mg 	Tricyclic Antidepressant Overdose <ul style="list-style-type: none"> • Sodium Bicarbonate <ul style="list-style-type: none"> ○ IV/IO – 1 mEq/kg Beta Blocker Overdose <ul style="list-style-type: none"> • Glucagon <ul style="list-style-type: none"> ○ IV/IO – 0.1 mg/kg <ul style="list-style-type: none"> • May give up to 10 mg if available Calcium Channel Blocker Overdose <ul style="list-style-type: none"> • Calcium Chloride <ul style="list-style-type: none"> ○ IV/IO – 20 mg/kg over 1 min • Glucagon <ul style="list-style-type: none"> ○ IV/IO – 0.1 mg/kg <ul style="list-style-type: none"> • May give up to 10 mg if available Stimulant/Hallucinogen Overdose <ul style="list-style-type: none"> • Midazolam <ul style="list-style-type: none"> ○ IM – 0.1 mg/kg <ul style="list-style-type: none"> • Max 5 mg
Additional Information: <ul style="list-style-type: none"> • Refer to VCEMS Policy 705.17-Nerve Agent Poisoning for nerve agent exposure treatment guidelines. • If chest pain present, refer to chest pain policy. DO NOT GIVE ASPIRIN OR NITROGLYCERIN (Consult with ED Physician) • Narcan – it is not necessary that the patient be awake and alert. Administer until max dosage is reached <u>or</u> RR greater than 12/min. When given to chronic opioid patients, withdrawal symptoms may present. IM dosing is the preferred route of administration. <ul style="list-style-type: none"> ○ If base hospital contact cannot be made, naloxone should be administered sparingly, in doses no more than 0.1 mg every 2-3 minutes. 	

Effective Date: December 1, 2019
Next Review Date: July 31, 2021

Date Revised: July 11, 2019
Last Reviewed: July 11, 2019


 VCEMS Medical Director

Suspected Stroke	
ADULT	
BLS Procedures	
Cincinnati Stroke Scale (CSS)	
Administer oxygen as indicated	
Administer oxygen if SpO2 less than 94% or unknown	
Determine Blood Glucose level, treat according to VC EMS policy 705.03 – Altered Neurologic Function	
ALS Prior to Base Hospital Contact	
IV/IO access	
Cardiac monitor – document initial and ongoing rhythm strips	
If not already performed by BLS personnel, determine Blood Glucose level, treat according to VC EMS policy 705.03 – Altered Neurologic Function	
Patients meeting Stroke Alert criteria as defined in VC EMS Policy 451:	
<ul style="list-style-type: none"> • Notify Base hospital within 10 minutes of identifying a Stroke Alert • Expedite transport to appropriate Acute Stroke Center (ASC). 	
Patients meeting ELVO Alert criteria as defined in VC EMS Policy 451:	
<ul style="list-style-type: none"> • Notify TCASC within 10 minutes of identifying an ELVO Alert • Expedite transport to appropriate Thrombectomy Capable Acute Stroke Center (TCASC). 	
Base Hospital Orders only	
Consult with ED Physician for further treatment measure	
Additional Information	
<u>Cincinnati Stroke Scale (CSS)</u>	<u>Ventura County ELVO Score (VES)</u>
Facial Droop	Forced Eye Deviation
Normal: Both sides of face move equally	
Abnormal: One side of face does not move normally	
Arm Drift	Aphasia
Normal: Both arms move equally or not at all	
Abnormal: One arm does not move, or one arm drifts down compared with the other side	Neglect
Speech	Obtundation
Normal: Patient uses correct words with no slurring	
Abnormal: Slurred or inappropriate words or mute	Refer to VC EMS Policy 451 for Detailed VES.
<ul style="list-style-type: none"> • Patients must meet Stroke Alert criteria in order to continue to VES • Document name and phone number in ePCR of person who observed patient's Time Last Known Well (TLKW), and report this information to the receiving facility. • Stroke patients in cardiac arrest with sustained ROSC (greater than 30 seconds) shall be transported to the nearest STEMI Receiving Center (SRC). • For seizure activity, refer to VC EMS Policy 705.20 Seizure. 	

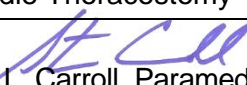

Traumatic Cardiac Arrest	
ADULT	PEDIATRIC
BLS Procedures	
<ul style="list-style-type: none"> • Assess for viability per policy 606 • Treat immediate threats to life <ul style="list-style-type: none"> External hemorrhage: Tourniquet as indicated Airway and Breathing: Clear airway when indicated, place OPA, BVM ventilations Chest Compressions: Chest compressions should be performed when possible without delaying transport or other treatments <p>Rapid trauma assessment per Trauma Treatment guidelines to identify potential injuries and prioritize interventions</p>	
ALS Standing Orders	
Assess patient and mechanism Prioritize interventions in order of suspected etiology	
<p>Optimize Oxygenation/Ventilation</p> <ul style="list-style-type: none"> • Advanced airway per policy <p>Correct potential obstructive shock</p> <ul style="list-style-type: none"> • Maintain high Index of suspicion for tension pneumothorax • Bilateral needle thoracostomy per policy 715 <p>Treat potential exsanguination</p> <ul style="list-style-type: none"> • Obtain bilateral large bore IV or IO access • Tourniquet for any external hemorrhage • 1 L normal saline bolus simultaneously via each IV/IO • Utilize pressure bag for rapid fluid administration • Repeat PRN during arrest <p>Treat Cardiovascular Collapse</p> <ul style="list-style-type: none"> • High quality CPR • Epinephrine per policy <p>If palpable pulse becomes present;</p> <ul style="list-style-type: none"> • Re-assess for and control external hemorrhage. • Administer TXA as indicated in VCEMS Policy 734 • Titrate normal saline to SBP \geq 80 mmHg or palpable peripheral pulses 	<p>Optimize Oxygenation/Ventilation</p> <ul style="list-style-type: none"> • Clear airway obstruction and suction as indicated <p>Correct potential obstructive shock</p> <ul style="list-style-type: none"> • Maintain high Index of suspicion for tension pneumothorax • Bilateral needle thoracostomy per policy 715 <p>Treat potential exsanguination</p> <ul style="list-style-type: none"> • Obtain bilateral large bore IV or IO access • Tourniquet for any external hemorrhage • 20 mL/kg normal saline bolus simultaneously via each IV/IO • Utilize pressure bag or push pull technique for rapid fluid administration • Repeat PRN during arrest <p>Treat Cardiovascular Collapse</p> <ul style="list-style-type: none"> • High quality CPR • Epinephrine per policy <p>If palpable pulse becomes present;</p> <ul style="list-style-type: none"> • Re-assess for and control external hemorrhage. • Titrate normal saline to SBP \geq 80 mmHg or palpable peripheral pulses
Base Hospital Orders only	
Consult with ED Physician when orders are needed for interventions within scope but not addressed in policy.	
Additional Information	
<ul style="list-style-type: none"> • Lung sounds are subjective and when pneumothorax is present will worsen over time with BVM ventilations. Diminished or absent lung sounds should make needle thoracostomy the priority. Any other findings are inconclusive and do not contraindicate needle thoracostomy. • IO access is preferred for initial access unless circumstances are such that IO is less likely to be successful than IV. • Basic interventions should be initiated immediately and can be terminated if indicated after initial 606 assessment. • Intubation of immobilized patient in cardiac arrest is inherently difficult. Strongly consider use of supraglottic device as primary advanced airway adjunct. • Minimize Scene time to \leq 10 minutes. 	

Effective Date: December 1, 2019
Next Review Date: October 31, 2020

Date Revised: October 10, 2019
Last Reviewed: October 10, 2019



VCEMS Medical Director

COUNTY OF VENTURA EMERGENCY MEDICAL SERVICES		HEALTH CARE AGENCY POLICIES AND PROCEDURES
Policy Title: Needle Thoracostomy		Policy Number: 715
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: December 1, 2019
APPROVED: Medical Director	 Daniel Shepherd, M.D.	Date: December 1, 2019
Origination Date:	August 2010	
Date Revised:	October 10, 2019	Effective Date: December 1, 2019
Date Last Reviewed:	October 10, 2019	
Review Date:	October 31, 2021	

- I. Purpose: To define the indications, procedure and documentation for needle thoracostomy use by paramedics.
- II. Authority: Health and Safety Code, Sections 1797.220 and 1798. California Code of Regulations, Title 22, Sections 100145 and 100169.
- III. Policy: Paramedics may perform needle thoracostomy on patients with a suspected tension pneumothorax in accordance with this policy.
- IV. Procedure:
 - A. Indications
 1. Patients with **ALL** of the following:
 - a. Clinical suspicion of pneumothorax (e.g., trauma, dyspnea, chest pain),
 - b. Systolic Blood Pressure less than 90 mmHg (adults) or 70 mmHg (pediatrics less than 40 kg) and signs of hypoperfusion.
 - c. Absent or significantly decreased breath sounds on the affected side.
 2. Patients in traumatic cardiac arrest:
 - a. Bilateral needle thoracostomy should be performed when patients meet criteria for resuscitation per policy 606 and have known or suspected torso trauma.
 - B. Contraindications: None in this setting
 - C. Equipment
 1. Antiseptic solution
 2. 10 ml syringe
 3. Adults and pediatric patients over 40kg: 3-3.5 inch (8.0-8.5 cm), 10 to 14 gauge over-the-needle catheter
Peds under 40kg: 1.25-inch (3cm), 14 to 16 gauge over-the-needle catheter
 4. Connection tubing
 5. Heimlich valve
 6. Tape

D. Placement

1. Attach the syringe to the needle/catheter.
2. Identify and prep the site with antiseptic solution:

Preferred Adult Site:

- The lateral placement is the preferred method which is the fourth intercostal space in the anterior-axillary line (lateral to nipple).

Preferred Adult *Alternative* Site and Preferred Pediatric Site:



- If unable to access lateral placement due to patient size, position, or failed attempt, locate the second intercostal space in the mid-clavicular line.
3. Insert the needle/catheter perpendicular to the skin over the rib and direct it just over the top of the rib into the intercostal space.
 4. After inserting the needle under the skin, maintain negative pressure in the syringe.
 5. Advance the needle/catheter through the parietal pleura until a “pop” is felt and/or air or blood enters the syringe, then advance **ONLY** the catheter (not the syringe/needle) until the catheter hub is against the skin.

CAUTION: Do not reinsert needle into cannula due to danger of shearing cannula.



6. Hold the catheter in place and remove and discard the syringe and needle.
7. Attach tubing and Heimlich valve.
8. Secure the catheter hub to the chest wall with dressings and tape.
9. Reevaluate the patient (VS, lung sounds).

E. Documentation

1. All needle thoracostomy attempts must be documented in the Ventura County Electronic Patient Care Reporting System (VCePCR).
2. Documentation will include location, size of equipment, number of attempts, success, complications, patient response and any applicable comments.

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Use of Pre-existing Vascular Device (PVAD)		Policy Number: 716	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: December 1, 2019	
APPROVED: Medical Director	 Daniel Shepherd, MD	Date: December 1, 2019	
Origination Date:	March 2, 1992	Effective Date:	December 1, 2019
Date Revised:	May 9, 2019		
Last Reviewed:	May 9, 2019		
Review Date:	May 31, 2021		

- I. PURPOSE: To define the use of pre-existing vascular access devices (PVAD) by Paramedics in the prehospital setting.
- II. AUTHORITY: Authority: California Health and Safety Code, §1798, §1798.2; §1798.160 and §1798.170, and California Code of Regulations, Title 22, §100145 and §100146.
- III. POLICY: PVADs may be used in the prehospital setting as set forth by this document.
- IV. Definition: A PVAD is a heparin/saline lock or an indwelling catheter/device placed into a vein, to provide vascular access for those patients requiring long term intravenous therapy or hemodialysis. Internal subcutaneous indwelling devices are not to be accessed by prehospital field personnel.
- V. Procedure: After successful completion of an approved Ventura County training module, a Paramedic may access a PVAD and administer normal saline and medications, for a patient with the following conditions:
 - A. Peripheral Vein Heparin/Saline Lock
 1. Any conditions requiring intravenous fluids and/or medications
 - B. Central Line devices with externally visible access ports –PICC, tunneled catheters, or temporary dialysis catheters
Urgent need to administer fluids and/or medications which can only be given by the IV route and a peripheral IV site is not readily/immediately available.
 - C. Hemodialysis Fistula (to be used only in the absence of IO, peripheral, or central IV access):
Urgent need to administer fluids and/or medications which can only be given by the IV route and an alternate IV site is not readily/immediately available. Attempt to aspirate at least 5 ml of blood prior to administering any medications.

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Patients After Conducted Electrical Weapon (TASER) Use		Policy Number: 725	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: December 1, 2019	
APPROVED: Medical Director	 Daniel Shepherd, M.D.	Date: December 1, 2019	
Origination Date:	August 10, 2006	Effective Date: December 1, 2019	
Date Revised:	August 8, 2019		
Date Last Reviewed:	August 8, 2019		
Next Review Date:	August 31, 2021		

- I. PURPOSE: To provide a framework for the pre-hospital treatment and transport of patients after TASER deployment.

- II. AUTHORITY: Health and Safety Code, Sections 1797.214, 1797.220, 1798, and 1798.200, California Code of Regulations, Title 22, Section 100169.

- III. POLICY: Law enforcement officers may remove the TASER probes and may choose to transport individuals in custody to an emergency department. On occasion, EMS personnel may be called to evaluate, treat and/or transport patients with or without the TASER probes in place.
 - A. When requested by law enforcement and absent any contraindications as outlined in policy, TASER probes may be removed by EMS personnel.
 - B. If EMS transport is indicated or requested by law enforcement EMS personnel should transport to the closest receiving facility, appropriate specialty care facility, or the hospital requested by law enforcement.

- IV. PROCEDURE:
 - A. Be sure the scene has been deemed safe and secured by law enforcement before evaluating and treating the patient.
 - B. Before touching any patient where the Taser has been deployed, ensure law enforcement has disconnected cartridge from the handheld unit.
 - C. Any injuries or medical conditions will be treated according to the appropriate treatment protocol.
 - D. If the transporting paramedic determines that the patient is a risk to him/herself and/or the ambulance personnel, law enforcement officer(s) may be requested to accompany the patient.

E. TASER Probe Removal:

If one or both of the TASER probes requires removal for safe transportation or if removal requested by law enforcement:

1. Procedure must be witnessed by the arresting law enforcement officer. Identify the appropriate officer and confirm they are ready to witness the procedure.
2. Verify the cartridge has been removed from the handle or has been cut.
3. Used taser probes shall be considered a sharp biohazard, similar to used hypodermic needle. Standard safety precautions should be taken.
4. Place one hand on the patient in the area where the probe is embedded and stabilize the skin surrounding the puncture site between two fingers. With your other hand, in one fluid motion pull the probe straight out from the puncture site.
5. Reinsert TASER probes, point down, into the discharged air cartridge and hand it to the law enforcement officer.
6. Use appropriate antiseptic wipe to cleanse the skin surrounding the puncture site.
7. Apply direct pressure for bleeding and apply a sterile dressing to the wound site.
8. Assess for any injuries that may need medical attention and seek appropriate level of care.

F. Contraindications:

1. If the Taser has penetrated a sensitive area (e.g. head, face, neck, hand bone, axilla, groin, female breast), Do NOT remove the probe as injury may occur to bone, nerves, blood vessels, or an eye. Transport the patient to the ED in an appropriate position.

G. Documentation:

1. Any EMS incidents resulting from TASER deployment or probe removal will be documented in the Ventura County Electronic Patient Care Reporting System Refer to policy 1000: Documentation of Prehospital Care.
2. Incidents that do not result in EMS transport will be documented as outlined in VCEMS policy 603: Refusal of EMS Services.
3. If TASER probes are removed by EMS personnel documentation will include that procedure as well as the requesting law enforcement officer and/or agency.

COUNTY OF VENTURA EMERGENCY MEDICAL SERVICES		HEALTH CARE AGENCY POLICIES AND PROCEDURES
Policy Title 12 Lead ECG		Policy Number: 726
APPROVED: Administration:	<i>SLC</i> Steven L. Carroll, Paramedic	Date: December 1, 2019
APPROVED: Medical Director:	<i>Dr. S. MD</i> Daniel Shepherd, MD	Date: December 1, 2019
Origination Date:	August 10, 2006	
Date Revised:	July 11, 2019	Effective Date: December 1, 2019
Date Last Reviewed:	July 11, 2019	
Review Date:	July 31, 2021	

- I. Purpose: To define the indications, procedure and documentation for obtaining 12-lead ECGs.
- II. Authority: California Health and Safety Code, Sections 1797.220 and 1798, California Code of Regulations, Title 22, Section 100175.
- III. Policy: Paramedics will obtain 12-lead ECGs in patients demonstrating symptoms of acute coronary syndrome. Treatment of these patients shall be done in accordance with this policy. Only paramedics who have received training in this policy are authorized to obtain a 12-lead ECG on patients. EMTs who are specially trained may be authorized to set up the 12 lead.
- IV. Procedure:
 - A. Indications for a 12-lead ECG: Medical history and/or presenting complaints consistent with an acute coronary syndrome. Patients will have the acute (within the previous 12 hours) onset or acute exacerbation of one or more of the following symptoms that have no other clear identifiable cause:
 1. Chest, upper back or upper abdominal discomfort.
 2. Generalized weakness.
 3. Dyspnea.
 4. Symptomatic bradycardia
 5. After successful cardioversion/defibrillation of sustained V-Tach (Policy 705.25)
 6. Paramedic Discretion
 - B. Contraindications: Do NOT perform an ECG on these patients:
 1. Critical Trauma: There must be no delay in transport.
 2. Cardiac Arrest unless return of spontaneous circulation
 - C. ECG Procedure:
 1. Attempt to obtain an ECG during initial patient evaluation. Oxygen should be administered if patient is dyspneic, shows signs of heart

failure or shock, or has SpO₂ < 94%. If the ECG can be completed without delay (less than 3 minutes after patient contact), and the patient is not in severe distress, perform ECG prior to medication administration.

2. The ECG should be done prior to transport.
3. If the ECG is of poor quality (artifact or wandering baseline), or the patient's condition worsens, repeat to a total of 3.
4. Once an acceptable quality ECG is obtained, switch the monitor to the standard 4-lead function.
5. If the interpretation on monitor meets your manufacturer guidelines for a POS STEMI ECG, note underlying rhythm, and verify by history and physical exam that the patient does not have a pacemaker or ICD.

D. Base Hospital Communication/Transportation:

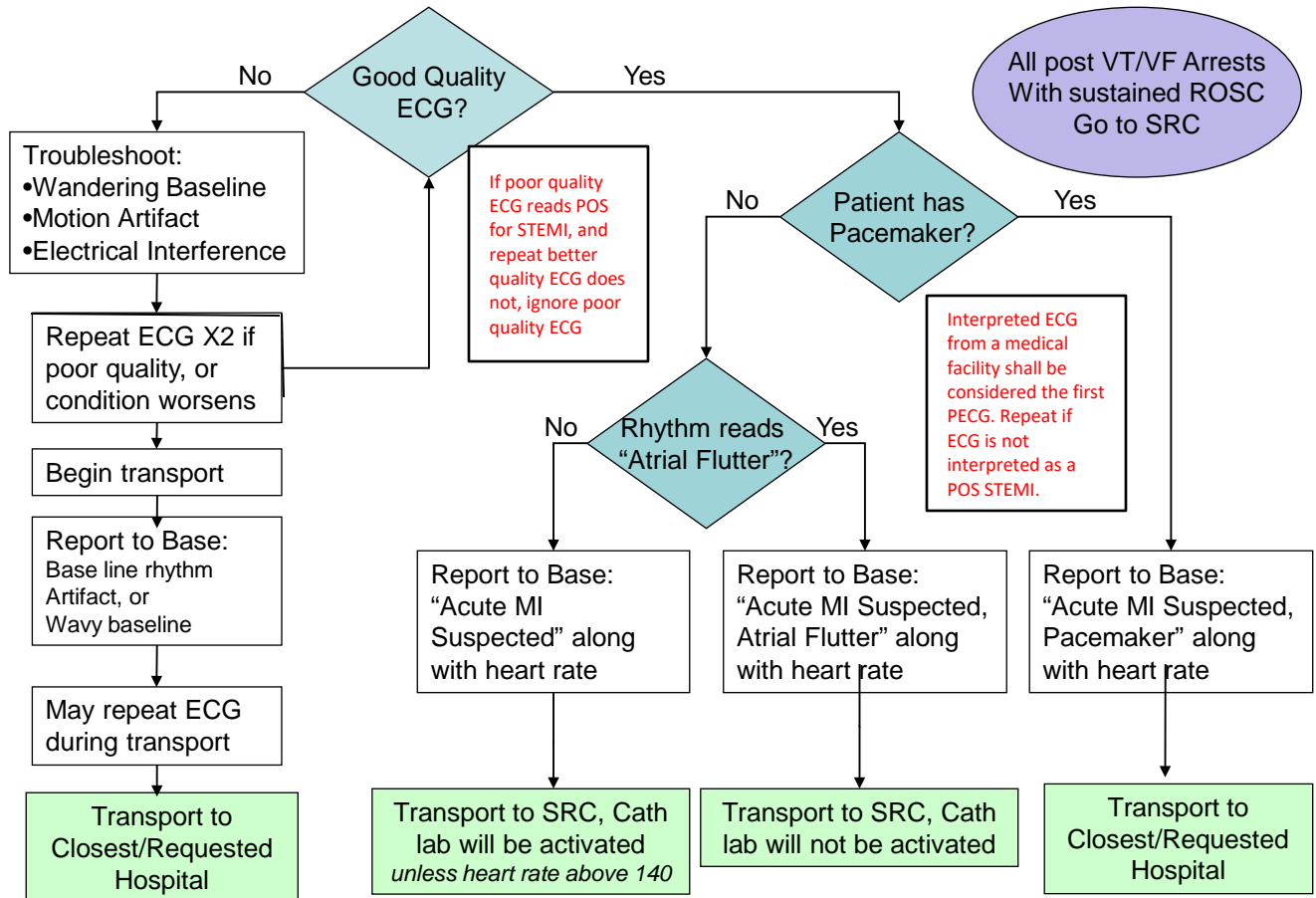
1. If the interpretation on monitor meets your manufacturer guidelines for a POS STEMI ECG, notify base hospital within 10 minutes of interpretation. Report POS STEMI ECG to MICN along with the heart rate on ECG. If the ECG is of poor quality, or the underlying rhythm is paced, or atrial flutter, include that information in the initial report. All other information, except that listed in items 2, 4, and 5 below, is optional and can be given at the paramedic and MICN's discretion.
2. Paramedics are to ask the patient if they have a cardiologist and report the information to the base hospital.
3. If the interpretation on monitor meets your manufacturer guidelines for a POS STEMI ECG, patients should be transported to the closest and most appropriate STEMI Receiving Center (SRC) depending on patient preference and cardiac catheterization lab availability. MICN may direct ambulance to alternative SRC if cardiac catheterization lab not available.
4. If the interpretation on monitor meets your manufacturer guidelines for a POS STEMI ECG, and the underlying rhythm is Atrial Flutter or if the rate is above 140, the Base Hospital shall be notified at the beginning of the report. The Cath Lab will not be activated.
5. If the interpretation on monitor meets your manufacturer guidelines for a POS STEMI ECG, and the patient has a pacemaker or the ECG is of poor quality (wandering baseline and/or artifact) report that to the MICN.



6. If a first responder paramedic obtains an ECG that does **not have** an interpretation on monitor that meets your manufacturer guidelines for a POS STEMI ECG, and the patient is stable, patient care may be turned over to the transporting paramedic. The ECG will be turned over to the transporting paramedic.
 7. Positive ECGs will be handed to the receiving medical practitioner. The receiving practitioner will initial, time and date the ECG to indicate they have received and reviewed the ECG.
- E. Patient Treatment:
1. Patient Communication: If the interpretation on monitor meets your manufacturer guidelines for a POS STEMI ECG, the patient should be told that “according to the ECG you may be having a heart attack”. If the ECG interpretation is anything else, the patient should NOT be told the ECG is normal or “you are not having a heart attack”. If the patient asks what the ECG shows, tell him/her that it will be read by the emergency physician.
- F. Other ECGs
1. If an ECG is obtained by a physician and the interpretation on the ECG is positive for STEMI, the patient will be treated as a positive STEMI. If the ECG obtained by a physician does not indicate a STEMI by interpretation, and the physician is stating **it is** a STEMI, perform a repeat ECG once patient is in the ambulance. If EMS ECG is positive for STEMI, transport to SRC as a STEMI alert. If EMS ECG is negative for STEMI, transport to SRC, however no STEMI alert will be activated. If physician is **not stating** it is a STEMI, and EMS ECG is not positive for STEMI, then transport to nearest facility.
 3. The original ECG performed by physician shall be obtained and accompany the patient.
 4. 12 Lead ECG will be scanned, or a picture will be obtained and added as an attachment to the Ventura County electronic Patient Care Report (VCePCR), in addition to being hand delivered to the receiving facility.
- G. Documentation
1. VCePCR will be completed per VCEMS policy 1000. The original ECG will be turned in to the base hospital and ALS Service Provider.

H. Reporting

1. False Positive ECGs not recognized and called in as such to the Base Hospital, will be reported to VC EMS as an Unusual Occurrence in accordance with VC EMS Policy 150.

Interpretation on monitor meets your manufacturer guidelines for a
POS STEMI ECG:



COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Documentation of Prehospital Care		Policy Number 1000	
APPROVED:		Date: December 1, 2019	
Administration:	Steven Carroll, Paramedic		
APPROVED:		Date: December 1, 2019	
Medical Director	Daniel Shepherd, M.D.		
Origination Date:	June 15, 1998		
Date Revised:	October 10, 2019		
Date Last Reviewed:	October 10, 2019	Effective Date: December 1, 2019	
Review Date:	October 31, 2021		

- I. **PURPOSE:** To define the use of standardized records to be used by Ventura County Emergency Medical Service (VCEMS) providers for documentation of pre-hospital care.
- II. **AUTHORITY:** California Health and Safety Code, Sections 1797.225, and 1798; California Code of Regulations, Title 22, Division 9, Section 100147.
- III. **Definitions:**

Incident: For the purposes of this policy, will be defined as any response involving any Ventura County pre-hospital personnel to any event in which there is an actual victim, or the potential for a victim

Patient Contact: Any encounter involving Ventura County pre-hospital personnel with any person consenting, either implied or informed, to assessment and/or treatment.

National EMS Information System (NEMSIS): The national data standard for emergency medical services as defined by the National Highway Traffic and Safety Administration (NHTSA) and the NEMSIS Technical Assistance Center (TAC)

California EMS Information System (CEMSIS): The California data standard for emergency medical services, as defined by the California EMS Authority (CalEMSA). This data standard includes the NEMSIS standards and state defined data elements.

VCEMS Data Standard: The local data standard, as defined by VCEMS. This data standard includes the NEMSIS and CEMSIS standards, in addition to locally defined data elements.

Ventura County Electronic Patient Care Report (VCePCR): The electronic software platform that allows for real time collection of prehospital patient care information at the time of service.

IV. POLICY: Patient care provided by first responders and transport personnel shall be documented using the appropriate method.

V. PROCEDURE:

A. Provision of Access

VCEMS will provide access to the approved Ventura County Electronic Patient Care Report (VCePCR) system and software to EMS system stakeholders required to enter, edit, or analyze data.

B. Documentation

1. The VCEMS VCePCR will be used to document the care provided by pre-hospital personnel for every incident in which there is a patient contact. Documentation shall be completed on any person with obvious injury or significant mechanism regardless of consent. The following are exceptions:

- a. If a First Responder Advanced Life Support (FR ALS) Paramedic initiates care of the patient, the FR ALS Paramedic shall document all care provided to the patient on VCePCR.
- b. If care is turned over to another ALS agency, a VCePCR shall be completed by all pre-hospital provider agencies who delivered patient care and/or transport.
- c. All relevant fields pertaining to the EMS event will be appropriately documented on the VCePCR.
- d. Patient side documentation is encouraged and should be practiced whenever patient care would not be negatively affected.
- e. In the event of an incident with three or more victims, documentation will be accomplished as follows:

- 1) MCI/Level I (3-14 victims): The care of each patient shall be documented using a VCePCR.
- 2) MCI/Level II or III (15+ victims): Each patient transported to a hospital shall have their care documented on a Ventura County Multi-Casualty Patient Record.
 - a) The transporting agency is responsible for completion of the multi-casualty patient record. The record is designed to be completed by the transporting crew enroute to the receiving hospital.
 - b) The transporting agency retains the original of the multi-casualty patient record. A copy shall be left with the patient at the receiving hospital. The triage tag shall be attached to this copy and is included as official documentation in the patient's medical record.
 - c) The transporting agency shall distribute copies of the multi-casualty patient record to the base hospital and EMS Agency within twenty-four hours of demobilization of the incident.

C. Transfer of Care

1. Transfer of care between two field provider teams and between field provider and hospital will be documented on the VCePCR. The first arriving agency will post to the server and perform a coordinated electronic transfer of care whenever possible within the VCePCR system to the next incoming unit. The unit receiving the electronic transfer will download the correct corresponding report prior to completion of the VCePCR. This includes intra-agency units and inter-agency units.

- a. Any / all agencies involved in the transferring of electronic medical records shall ensure they are uploading and downloading the correct record for the correct patient.
2. A VCePCR shall be completed in accordance with training administered by VCEMS, or designee.
3. The time that patient care is transferred to hospital staff shall be documented by the primary provider handling patient care in all circumstances where a patient is transported to a hospital.
 - a. Transfer of care to the receiving facility is complete when:
 - 1) The patient is moved off of the EMS gurney, and;
 - 2) Verbal patient report is given by transporting EMS personnel and acknowledged by Emergency Department medical personnel and a signature of patient receipt is obtained in the VCePCR.
 - a) The signature time shall be the official transfer of care time, and will be documented in eTimes.12 – Destination Patient Transfer of Care Date/Time Destination.

D. Cardiac Monitor

In the event the cardiac monitor is attached as required by any of the VCEMS 705 policies, a complete ECG data transfer shall be recorded and attached to the corresponding VCePCR. ECG data shall be downloaded by each provider agency involved in that incident and attached to the corresponding VCePCR. An original 12 lead ECG shall be printed and submitted upon transfer of care to hospital staff for any patient where a 12 lead ECG was performed.

1. If a 12 lead ECG is performed by medical staff at a clinic or urgent care the original document shall be scanned or photographed and attached to the VCePCR, at the time of posting to the server, as part of the patient's prehospital medical record and the original or a copy of the 12-lead ECG shall be submitted to SRC staff upon transfer of care to hospital personnel.

- E. Submission to VCEMS
1. In the following circumstances, a complete VCePCR shall be completed and posted by any transporting unit, and by FR ALS personnel retaining care, within thirty (30) minutes of arrival at destination:
 - a. Any patient that falls into Step 1 or Step 2 (1.1 – 2.8) of the Ventura County Field Triage Decision Scheme
 - b. Any patient that is in cardiac arrest, or had a cardiac arrest with ROSC.
 - c. Any patient with a STEMI positive 12 lead ECG.
 - d. Any patient with a positive Cincinnati Stroke Screening (CSS +). This includes all prehospital Stroke Alerts and all prehospital ELVO alerts.
 - e. Any patient that is unable to effectively communicate information regarding present or past medical history.
 - f. An exception to this circumstance would be during times of EMS system overload where a delay in a unit returning to service could pose significant delays in response times.
 2. For circumstances not listed above, in which the patient was transported to a hospital, the entire data set found within the VCePCR 'REPORT' tab shall be completed and electronically posted to the server by transporting agencies, and by FR ALS personnel retaining care, within thirty (30) minutes of arrival at destination. This includes all assessments, vital signs, procedures, and medications performed as part of the response.
 - a. An exception to this circumstance would be during times of EMS system overload where a delay in a unit returning to service could pose significant delays in response times.
 3. All other reports not falling into the above criteria shall be completed and posted to the server as soon as possible and no later than the end of shift.

4. In all circumstances in which a person is transported to a receiving hospital from the scene of an emergency, or as part of any emergent/urgent specialty care transfer (STEMI, Stroke, Trauma), the transporting personnel shall obtain and document the eOutcome.04 – Hospital Encounter Number.
- F. For Refusal of EMS Services, Refer to Policy 603 for documentation requirements. Every patient contact resulting in refusal of any medical treatment and/or transport must be documented with the following information, the reason dispatched and/or chief complaint, assessment and vital signs, base hospital contact (when appropriate), patient advised to seek medical attention and completion of all applicable fields. Signatures will be captured whenever possible by each agency at the time of patient contact/refusal. If, at any point, a signature is not obtained for any reason, explanation shall be documented in the narrative section of the VCePCR.
 - G. ALS Inter-facility Transfers (Acute Care Facility to Acute Care Facility) Documentation shall be completed on all ALS Inter-facility transfers only. Documentation will include, but not be limited to, baseline assessment, medications administered, reason for transfer, procedures done to the patient, vital signs and any changes from baseline assessment. If the transferring facility sends staff to accompany the patient, the staff member(s) name(s) shall be documented on the VCePCR.
 - H. The completion of any VCePCR will not delay patient transport to hospital receiving facility.
 - I. Patient Medical Record
The VCePCR and Ventura County Multi-Casualty Patient Record shall be considered a legal document and part of the patient's medical record. The first responder agency, transport agency, and hospital are custodians of record. Printing should only be performed as needed, and an electronic copy of the VCePCR should be utilized and referred to whenever feasible. A print log and reason for printing shall be monitored regularly to help ensure security of protected health information within the system.

Attachment A

These abbreviations have been accumulated from the California approved EMT Curriculum and various other resource material. The abbreviations were collected by the Ventura County ALS CQI Team to assist EMS field, hospital and dispatch personnel in providing consistent medical documentation.

Term	Abbreviation
5% Dextrose in Water	D5W
Abdomen	Abd
Above knee amputation	AKA
Acquired Immunodeficiency Syndrome	AIDS
Ad Libitum (as desired)	Ad lib
Advanced Life Support	ALS
Against medical advise	AMA
Alcohol	ETOH
Alert and oriented	A & O
Also known as	AKA
Altered Level Of Consciousness	ALOC
Amount	Amt
Ampule	Amp
Antecubital	AC
Anterior	Ant
Anterior/Posterior	AP
Appointment	Appt
Arterial Blood Gas	ABG
Arteriosclerotic Heart Disease	ASHD
As necessary	prn
As soon as possible	ASAP
Aspirin	ASA
At	@
Atrial Fibrillation	A fib, AF
Attention Deficit Hyperactivity Disorder	ADHD
Automated external Defibrillator	AED
Automatic Implantable Cardiac Defibrillator	AICD
Bag Valve Mask	BVM
Basic Life Support	BLS
Birth Control Pill	bcp
Bowel Movement	BM
Bundle Branch Block	BBB
By Mouth	p.o.
By Order Of	per
Cancer	CA
Carbon Dioxide	CO ₂
Carbon Monoxide	CO
Cardio Pulmonary Resuscitation	CPR

Term	Abbreviation
Central Nervous System	CNS
Cerebrospinal Fluid	CSF
Cerebrovascular Accident	CVA
Cervical Spine	C-Spine
Chief Complaint	CC
Chronic Obstructive Pulmonary Disease	COPD
Circulation, Sensation, Motor	CSM
Clear	Cl
Continuous Positive Airway Pressure	CPAP
Coronary Artery Bypass Graft	CABG
Coronary Artery Disease	CAD
Date of Birth	DOB
Dead on Arrival	DOA
Defibrillated	Defib
Delirium Tremens	DTs
Diabetes Mellitus	DM
Dilation and curettage	D & C
Discontinue*	D/C*
Distal Interphalangeal Joint	DIP
Deformity, Contusion, Abrasion, Penetration, Burn, Tenderness, Laceration, Swelling	DCAPBTLs
Do Not Resuscitate	DNR
Doctor of Osteopathy	DO
Drops	gtts
Dyspnea On Exertion	DOE
Electrocardiogram	ECG
Electroencephalogram	EEG
Emergency Department	ED
Emergency Medical Services	EMS
Emergency Medical Technician	EMT
Endotracheal	ET
End-Tidal CO ₂	EtCO ₂
Equal	=
Estimated	Est
Estimated Time of Arrival	ETA
Etiology	Etiol.
Every	q

Term	Abbreviation
Every day*	qd*
Evening	pm
Extended Care Facility	ECF
Eye, ear, nose, throat	EENT
Fahrenheit	F
Female	F
Fetal Heart Rate	FHR
Fluid	FI
Foot	Ft
Foreign body	FB
Four times a day	QID
Fracture	Fx
Gallbladder	GB
Gastrointestinal	GI
Genitourinary	GU
Glasgow Coma Score	GCS
Grain	Gr
Gram	g
Gravida 1,2,3, etc	G1, G2, G3
Gun Shot Wound	GSW
Gynecological	Gyn
Heart Rate	HR
Hematocrit	Hct
Hemoglobin	Hgb
Hepatitis A Virus	HAV
Hepatitis B Virus	HBV
Hepatitis C Virus	HCV
History	Hx
History and Physical	H & P
Hour of Sleep (bedtime)*	hs*
Human Immunodeficiency Virus	HIV
Hydrochlorothiazide	HCTZ
Hypertension	HTN
Immediately	STAT
Insulin Dependent Diabetes Mellitus	IDDM
Intake and Output	I & O
Intensive Care Unit	ICU
Intercostal Space	ICS
Intracranial Pressure	ICP
Intralingual	IL
Intramuscular	IM
Intraosseous	IO
Intrauterine Device	IUD
Intravenous	IV
Intravenous Push	IVP
Irregular	Irreg
Jugular venous distention	JVD
Kilogram	kg
Kilometer	Km
Labor and Delivery	L & D
Laceration	Lac
Last Menstrual Period	LMP
Lateral	Lat
Left	L
Left Eye*	OD*

Term	Abbreviation
Left Lower Extremity	LLE
Left Lower Lobe	LLL
Left Lower Quadrant	LLQ
Left Upper Extremity	LUE
Left Upper Lobe	LUL
Left Upper Quadrant	LUQ
Less Than	<
Lower Extremity	LE
Lumbar Puncture	LP
Male	M
Medical Doctor	MD
Metered Dose Inhaler	MDI
Microgram	mcg
Milliequivalent	mEq
Milligram	mg
Milliliter	ml
Millimeter	mm
Minute	Min
Morning	am
Morphine Sulphate*	MS*
Motor Vehicle Collision	MVC
Mouth	MO
Moves all Extremities	MAE
Multiple Casualty Incident	MCI
Multiple sclerosis	MS
Myocardial Infarction	MI
Nasal cannula	NC
Nausea/Vomiting	NV
Negative	neg
Night	Noc
Nitroglycerin	NTG
No Acute Distress	NAD
No Known Allergies	NKA
No Known Drug Allergies	NKDA
Non Insulin Dependent Diabetes Mellitus	NIDDM
Non Rebreather Mask	NRBM
Non Steroidal Anti-inflammatory Drugs	NSAID
Normal Saline	NS
Normal Sinus Rhythm	NSR
Not applicable	NA
Nothing by Mouth	NPO
Obstetrics	OB
Occupational Therapy	OT
Oral Dissolving Tablet	ODT
Operating Room	OR
Organic Brain Syndrome	OBS
Ounce	oz
Over the Counter	OTC
Overdose	OD
Oxygen	O2
Oxygen Saturation	SpO ₂
Palpable	Palp
Para, number of pregnancies	Para 1,2,3, etc
Paramedic	PM

Term	Abbreviation
Paroxysmal Supraventricular Tachycardia	PSVT
Paroxysmal Nocturnal Dyspnea	PND
Past Medical History	PMH
Pediatric Advanced Life Support	PALS
Pelvic Inflammatory Disease	PID
Per Rectum	pr
Percutaneously Inserted Central Catheter	PICC
Phencyclidine	PCP
Physical Exam	PE
Positive	+, pos
Pound	lb
Pregnant	Preg
Premature Ventricular Contraction	PVC
Primary Care Physician	PCP
Private/Primary Medical Doctor	PMD
Privately Owned Vehicle	POV
Pro Re Nata – As Needed	PRN
Pulmonary Embolism	PE
Pulse, Motor, Sensation	PMS
Pulseless Electrical Activity	PEA
Pupils Equal Round and Reactive to Light	PERRL
Range of Motion	ROM
Registered Nurse	RN
Respiration	R
Respiratory Rate	RR
Respiratory Therapist	RT
Right	Rt
Right Eye*	OD*
Right Lower Extremity	RLE
Right Lower Lobe	RLL
Right Lower Quadrant	RLQ
Right Middle Lobe	RML
Ringer's Lactate	RL
Rule Out	R/O
Sexually Transmitted Disease	STD

Term	Abbreviation
Shortness of Breath	SOB
Sinus Bradycardia	SB
Sinus Tachycardia	ST
Sodium Bicarbonate	NaHCO ₃
Sodium Chloride	NaCl
Streptococcus	Strep
Subcutaneous*	SQ*
Sublingual	SL
Sudden Acute Respiratory Syndrome	SARS
Sudden Infant Death Syndrome	SIDS
Supraventricular Tachycardia	SVT
Temperature	T
Temperature, Pulse, Respiration	TPR
Three Times a Day	TID
Times	X
To Keep Open	TKO
Tracheostomy	Trach
Traffic Collision	TC
Transient Ischemic Attack	TIA
Transcutaneous Pacing	TCP
Treatment	Tx
Tuberculosis	TB
Twice a day	BID
Upper Respiratory Infection	URI
Urinary Tract Infection	UTI
Ventricular Fibrillation	VF
Ventricular Tachycardia	VT
Vital Signs	VS
Volume	Vol
Water	H ₂ O
Weight	Wt
With	w/
Within Normal Limits	WNL
Without	w/o
Wolf-Parkinson-White	WPW
Year	Yr
Years Old	y/o

*THE JOINT COMMISSION and ISMP have indicated these abbreviations have a high likelihood of misinterpretation; thereby leading to medical errors, therefore, they are **not** to be used in **handwritten** documentation.