Public	Health Administration Pre-hospital Services Committee	October 11, 2018
	Conference Room Agenda	9:30 a.m.
	E. Gonzales, 2 <sup>nd</sup> Floor	
Oxnar	d, CA 93036	
I.	Introductions	
II.	Approve Agenda	
III.	Minutes	
IV.	Medical Issues	
	A. Push dose Epi changes	Dr. Shepherd
٧.	New Business	
	A. ROSC Policy	Katy Hadduck/Dr. Shepherd
VI.	Old Business	
	A. 319 – Paramedic Preceptor	Chris Rosa
	B. 330 – EMT/Paramedic/MICN Decertification and Discipline	Chris Rosa
	C. 504 - ALS/BLS Equipment	Chris Rosa
VII.	Informational/Discussion Topics	
	A. 210 - Child, Dependent Adult or Elder Abuse Reporting	Karen Beatty
	B. 705.09 - Nitro Changes	Dr. Shepherd
	C. 726 - STEMI Activation Changes	Karen Beatty
VIII.	Policies for Review	
137	A. None	
IX.	Agency Reports	
	A. Fire Departments	
	B. Ambulance Providers	
	C. Base Hospitals	
	D. Receiving Hospitals	
	E. Law Enforcement	
	F. ALS Education Program	
	G. EMS Agency	
	H. Other	
Χ.	Closing	

Health Administration Large Conference Room 2240 E. Gonzales, 2<sup>nd</sup> Floor Oxnard, CA 93036

# Pre-hospital Services Committee Minutes

September 13, 2018 9:30 a.m.

	Topic	Discussion	Action	Approval
II.	Approve Agenda		Approved	Motion: Kathy McShea Seconded: Tom Gallegos Passed unanimous
III.	Minutes		Approved	Motion: Heather Ellis Seconded: Tom O'Connor Passed unanimous
IV.	Medical Issues			
V.	New Business			
VI.	Old Business			
	<ul><li>A. 705.25 – Ventricular Tachycardia, Sustained, Not in arrest</li></ul>	Karen Beatty made requested changes discussed at the last PSC and presented the new draft to the committee.  James Rosolek asked for clarification on the use of Versed for cardioversion.  Dr. Larsen explained that they wanted to give paramedics the latitude to call base and ask for Versed if needed.	Chris Rosa said he will clarify the use of Versed on cardioversion patients in "Additional Information".  Approved with changes.	Motion: Tom Gallegos Seconded: Kathy McShea Passed unanimous
VII.	Informational/Discussion Topics			
	A.			
VIII.	Policies for Review			
	A. 105 – Prehospital Services Committee Operations Guideline		No Change	Motion: Kathy McShea Second: Tom O'Connor Unanimous
	<ul><li>B. 106 – Development of Proposed Policies/Procedures</li></ul>		Anyone who asks for a PSC item must attend the meeting.	Motion: Kathy McShea Second: Tom O'Connor Unanimous
	C. 110 – County Ordinance #4099 Ambulance Business License		No Change Approved	Motion: Kathy McShea Second: Tom O'Connor Unanimous

D. 111 – Amb Company Procedure	Licensing	No change Approved	Motion: Kathy McShea Second: James Rosolek Unanimous
Services R	pital Emergency Reduction Impact	No change Approved	Motion: Kathy McShea Second: James Rosolek Unanimous
F. 151 – Med Reporting	lication Error	Add the EMS Duty Officer information/contact number. Re-send hyperlink to the committee. Approved with changes	Motion: Kathy McShea Second: Tom O'Connor Unanimous
G. 210 – Chil Adult or El Reporting			
H. 319 – Para Preceptor	amedic	Change policy name to: Paramedic Preceptor/FTO. Chris will add FTO language and make additional changes to bring up to date. Bring draft back to PSC. Table until next PSC	
I. 321 – MIC Requireme	N Authorization ents	No change Approved	Motion: Kathy McShea Second: Tom Gallegos Unanimous
J. 322 – MIC Reauthoriz Requireme	zation ents	No change Approved	Motion: Kathy McShea Second: Nicole Vorzimer Unanimous
Reactivation	N Authorization on	No change Approved	Motion: Kathy McShea Second: Nicole Vorzimer Unanimous
Decertifica Discipline		Tabled until next PSC. Chris Rosa will work on the changes and prepare draft for PSC to review in October.	
X. Agency Repo			
A. Fire de	epartments  VCFPD – Working on upgrading the s  VCFD – Helping OFD with paramedic  OFD – Working on Level 1 and Level	upgrades.	

		Fed. Fire – none	
		SPFD – none	
		FFD – none	
B.	Transport Providers	LMT – none	
		AMR/GCA – Chad Panke has stepped down from his position as Regional	
		Director. Mike Sanders will be covering this position until a replacement has	
		been chosen. Two AMR paramedics were deployed to assist with hurricane.	
		AIR RESCUE –First Blackhawk helicopter came to Ventura County last Sunday.	
		Still needs to be painted.	
C.	Base Hospitals	SVH – none	
		LRRMC – none	
		SJRMC – none	
		VCMC – The new wing at VCMC will be opened any day.	
D.	Receiving Hospitals	<b>PVH</b> – The new hospital tower will be populated with patients on October 15,	
		2018. There will be an open house at PVH on Sept. 27, 2018 from 1100 – 1400.	
		SPH – none	
		<b>CMH</b> – Conducting life safety training for staff to work in new building.	
		<b>OVCH</b> – Conducting life safety training for staff to work in new building.	
E.	Law Enforcement	VCSO – The Air Unit received its first Blackhawk last Sunday.	
		CSUCI PD – Fall semester has started and it is very busy on campus.	
F.	ALS Education	Ventura College – none	
	Programs		
G.	EMS Agency	<b>Steve</b> – Katy is retiring and will be missed very much. We will have a going	
		away party on October 11, 2018 immediately following a short PSC meeting. The	
		EMS Agency continues to assist VCPH with setting up TB POD's.	
		Dr. Shepherd - none	
		Chris – none	
		Katy – Katy will be working with Cedars Sanai after she retires.	
		Karen – Will send out information on World Stroke Day.	
		Julie – Suicide Awareness training in October. Please encourage employees to	
		attend.	
- 11	Other	Randy – none	
H.	Other	Masting adjacement at 12:00	
XI.	Closing	Meeting adjourned at 12:00	



Expires October 11, 2018

# Health Care Services 2240 E. Gonzales Rd Oxnard, CA 93036

For use in "Green Permit Parking" Areas only, **EXCLUDES** Patient parking areas

Parking Instructions: Parking at workshop venue is limited. Arrive early to allow for offsite parking if venue parking lot is full.

## 2240 Gonzales Rd. location

If you park in a designated "green permit parking" slot, fold this flyer in half and place pass face-up on the dash of your car, to avoid receiving a ticket.

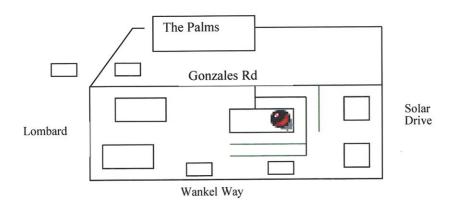
# 2100 Solar Drive

An additional amount of "Green Permit Parking" spaces (only 30) are available in adjacent parking lot, those that back-up against venue parking area, (Enter this parking lot off of Gonzales[3rd driveway] or Solar Drive). Place this flyer on your dash. If all of those stalls are occupied, overflow parking is available at The Palms shopping area or side streets.

### The Palms - shopping mall

Enter The Palms at Lombard and Gonzales. Allow for a ten minute walk to venue location.

Additional parking is available on side streets, Lombard, Solar and Wankel Way.



COUNTY OF VENTU	RA	EMERGENCY MEDICAL SERVICES	
HEALTH CARE AGE	NCY	POLI	CIES AND PROCEDURES
	Policy Title:		Policy Number
Car	diac Arrest Management: ROSC		XXX
APPROVED:			Date:
Administration:	Steven L. Carroll, Paramedic		Date.
APPROVED:			Date:
Medical Director:	Daniel Shepherd, MD		
Origination Date:			
Date Revised:			Effective Date:
Date Last Reviewed:			Ellective Date.
Next Review Date:			

- I. PURPOSE: To establish a standardized procedure for the treatment of patients who have a return of spontaneous circulation (ROSC) following treatment for cardiac arrest.
- II. AUTHORITY: California Health and Safety Code, Section 1797.220, and 1798.California Code of Regulations, Title 22, Section 100170.
- III. POLICY:
  - A. For patients who are 18-years-old and older, who achieve ROSC following a cardiac arrest that is non-traumatic in nature, ROSC protocol will be followed.
- IV. PROCEDURE:

# \*\*\*\*\*PRIORITIES POST RESUSCITATION\*\*\*\*\*

- Immediate recognition and treatment of re-arrest
- Preventing re-arrest by effective and continuous management of C − A − B
- Thorough assessment and identification / treatment of correctable causes
- Movement and transport decisions that prioritize ongoing patient care

## Rescuer 1

- Palpate femoral pulse continuously for first 10 minutes prior to patient movement
- Immediately begin chest compressions if femoral pulse is lost or in question

# Rescuer 2

- Continue rescue breathing
- Deliver 1 ventilation every 6 seconds, no more than 10 breaths per minute
- Deliver ventilations with ONE HAND on bag to avoid hyperventilation

## Rescuer 3

- Ensure effective mask seal with continuous "2 thumbs up" technique
- Coach rescuer 2 as needed to assure delivery of ventilations and avoid hyperventilation
- For spontaneously breathing patients apply nasal EtCO₂ device, if available

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# Rescuer 5

- Assist in overseeing triangle of life roles
- Assist rescuer 4 by preparing medications and equipment
- Obtain manual blood pressure
- Obtain 12-lead EKG once directed; assure monitor is returned to pads / paddles mode
- May be delegated a variety of tasks based on scope

# Rescuer 4 TEAM LEAD

- Communicate treatment priorities to team -- ensure roles are clear and effective
- Setup cardiac monitor to recognize change in patient status monitor must remain attached to patient and observed through all phases of incident
- Confirm monitor settings
  - o VF alarm activated
  - o Pads / paddles mode
  - SpO<sub>2</sub> waveform
  - o EtCO<sub>2</sub> waveform
- Attach adhesive SpO<sub>2</sub> probe to assure consistent and reliable waveform, if available
- Perform a thorough assessment: history, medications, circumstances
- May delegate interventions as appropriate

# **ASSESS**

### **CIRCULATION**

- Evaluate for palpable femoral pulse
- Evaluate MANUAL blood pressure
  - o repeat every 5 minutes
  - o manual for patient changes or SBP < 90 mmHg
- Monitor for falling EtCO2 as sign of re-arrest
- Obtain and evaluate 12-lead only after assessment and interventions

### **AIRWAY - VENTILATION - OXYGENATION**

- Confirm EtCO<sub>2</sub> waveform present with every ventilation; normal 35 – 45 mmHg
- · Confirm presence of bilateral lung sounds
- Evaluate SpO<sub>2</sub>; goal is 94% 98%
- Consider likelihood of respiratory cause; e.g. choking

# **SUPPORT**

### **CIRCULATION**

- Obtain peripheral IV preferred 18g, minimum 20g
- Initiate 1 L fluid bolus, use pressure bag for IO or rapid infusion via peripheral IV
- Administer pressor epinephrine\* IV 10 μg (1 mL of prepared solution\*) every 5 minutes PRN for SBP < 90mmHg</li>
- · Circulation treatment goals
  - o Peripheral pulses present
  - o Systolic BP > 90 mmHg
  - Ongoing fluid therapy\*\*
- · Consider etiology and treat if possible
  - o Hypovolemia, sepsis, GI bleeding
  - o MI, heart failure, idiopathic electrical anomaly
  - o Hyperkalemia, opiate overdose

### **AIRWAY - VENTILATION - OXYGENATION**

- · Place advanced airway as needed to
  - o Improve ventilation or oxygenation
  - o Protect against aspiration
  - o Effectively ventilate while moving
- SpO $_2$  goal 94%-99% titrate supplemental oxygen down if SpO $_2$  is 100%
- · Ventilation treatment goals
  - o EtCO2 waveform present with each breath
  - o Bilateral breath sounds
- · Consider etiology and treat if possible
  - o Tension pneumothorax
  - o Bronchoconstriction
  - o Pulmonary embolus
  - o Upper airway obstruction

<sup>\*</sup>To prepare pressor epinephrine for treatment of hypotension, discard 1 mL from 10 mL saline flush syringe and draw 1 mL from epinephrine preload into flush syringe. This creates a solution of 10 mL / 100  $\mu$ g – AND -- 1 mL / 10  $\mu$ g.

<sup>\*\*</sup>Fluid bolus is given whether or not patient is hypotensive.

# **Triangle of Life: ROSC**

## Rescuer 3

- Maintains 2 hand, thumbs up mask seal
- Coaches to ensure adequate ventilation and avoid hyperventilation

# Rescuer 1 Rescuer 2 • Palpates femoral pulse continuously for 10 minutes Provides 1 hand BVM ventilations Immediately starts compressions if femoral pulse lost 1 breath every 6 seconds or in question Avoids hyperventilation PRIORITY position; does not take on additional tasks PRIORITY position; does not take on additional tasks Rescuer 5 Rescuer 4 TEAM LEAD · Directly assists team lead May serve as timekeeper Visually monitors EtCO<sub>2</sub>, SpO<sub>2</sub> pads/paddles EKG Takes manual blood pressure Obtains / delegates peripheral IV Assists in obtaining 12-lead Initiates NS bolus MOST MOBILE POSITION Provides ALS circulatory assessment and support MAY BE DELEGATED OTHER TASKS Provides airway assessment and support PRN Determines all ALS care - performs / delegates

Policy XXX: Cardiac Arrest Management: ROSC Page 4 of 6

	CARDIAC ARREST ROSC MANAGEMENT CHECKLIST
V	Initial Actions
	Initiate 10 minute continuous femoral pulse check
	Continue rescue breathing as needed
	Paddles attached and EKG waveform visible
	VF alarm set, SpO <sub>2</sub> and EtCO <sub>2</sub> waveforms visible
	Circulation
	Obtain peripheral IV access (18 g preferred, 20 g minimum)
	Initiate NS fluid bolus
	Assess for peripheral pulses
	Obtain manual blood pressure
	Epinephrine IN ADDITION TO fluids for systolic BP < 90 mmHg
	Airway / Ventilation
	Assess for responsiveness and spontaneous ventilations
	Assess EtCO <sub>2</sub> , lung sounds, SpO <sub>2</sub>
	Maintain BLS airway or place advanced airway as indicated
	Place advanced airway if needed to ventilate while moving patient
	Oxygenate to SpO <sub>2</sub> 94% to 99%
	Oxygen flow rate titrated to prevent SpO <sub>2</sub> 100%
	Obtain 12-lead EKG only after managing C-A-B and prior to movement
	Prior to Moving Patient, Confirm
	Patient has sustained ROSC > 10 minutes
	Stabilization of hemodynamics has been addressed
	Team has planned how to effectively ventilate during move
	Team is prepared to recognize re-arrest:  STOP MOVING RESUME CAM ON SCENE

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# **Post Resuscitation Transport**

- Transport is indicated after a patient has sustained ROSC > 10 minutes and effective efforts have been made to stabilize airway, breathing, and circulation
- Continuous patient assessment and treatment must remain the priority during transport. Recognizing hypotension, inadequate ventilation, or re-arrest, will have a large impact on patient outcome.

# Re-Arrest Guidelines (Loss of ROSC)

- Re-arrests require the same high quality CAM and ALS care as the initial arrest:
  - o Remain on scene or stop transport
  - Ensure adequate workspace
  - o Begin CAM Procedure
  - Defibrillate VF / VT ASAP
- Provide an additional 20 minutes of high quality CAM prior to any further movement or transport.
- If ROSC is obtained again, reassess, stabilize C − A − B as indicated, then continue with previous transport plan.
- If no ROSC, or multiple re-arrests, through 20 minutes from initial re-arrest consider underlying cause, circumstances, and presentation, then contact base for consultation.

	Prioritizing Care in Re-Arrest				
	Re-Arrest On Scene	Re-Arrest During Transport			
gu so • If to ar	re-arrest occurs during movement to urney or ambulance, resume CAM on cene outside of ambulance re-arrest occurs after loading but prior transport, unload patient from mbulance, resume CAM, and move to orkable space	<ul> <li>Do not continue transport</li> <li>Move to ambulance to safe location to provide CAM without movement</li> <li>IF DOD is indicated after re-arrest in ambulance, transport Code 2 to SRC</li> </ul>			

#### NOTE:

Most re-arrests occur in the first 10 minutes after ROSC is achieved.

Most delayed identification of re-arrest occurs during movement of the patient and during transport.

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# NO ROSC - NO ROSC AFTER RE-ARREST - FREQUENT RE-ARREST Base Consultation

- Base consultation is indicated when considering DOD vs continuing resuscitation.
- Assessment findings, observations, and circumstances should be clearly communicated to base.
- Strongly consider base consultation with ED physician for cases of prolonged resuscitation and predictors of increased chance of survival. In such cases high quality CAM should continue on scene unless transport is ordered by base hospital.

Patient Factors	Base Consult Takes Place	DOD
<ul> <li>Asystole / PEA</li> <li>Never defibrillated, no shockable rhythm observed</li> </ul>	After 20 minutes of resuscitation efforts	Consider after 20 minutes; base consult
<ul><li>VF / VT</li><li>Defibrillated at least once during arrest</li></ul>	After 40 minutes of resuscitation efforts without ROSC	Consider after 40 minutes; base consult
<ul><li>Witnessed collapse</li><li>Any arrest in which EMS witnessed loss of pulses</li></ul>	After 40 minutes of resuscitation efforts without ROSC	Consider after 40 minutes; base consult
<ul> <li>Signs of survivability</li> <li>EtCO2 &gt; 30</li> <li>Spontaneous breathing attempts</li> <li>Spontaneous movement</li> <li>Frequent / persistent VF / VT</li> </ul>	After 40 minutes of resuscitation efforts without ROSC	Consider DOD after 40 minutes; base consult  Physician consult preferred
<ul><li>Re-arrest without ROSC</li><li>Frequent re-arrest</li></ul>	After 20 minutes of re-arrest, or 20 minutes of intermittent ROSC	Consider after base consult  Consider rhythm and signs of survivability  If DOD is appropriate after rearrest in transport, continue resuscitation efforts and transport Code 2

COUNTY OF VENTURA			EMERGENCY MEDICAL SERVICES	
HEALTH CARE AGENO	CY	РО	LICIES AND PROCEDURES	
Para	Policy Title: amedic Preceptor / FTO		Policy Number: 319	
APPROVED: Administration: Ste	even L. Carroll, Paramedic		Date: DRAFT	
APPROVED: Medical Director Da	niel Shepherd, MD		Date: DRAFT	
Origination Date: Date Revised: Last Date Reviewed: Next Review Date:	June 1, 1997 September 13, 2018 September 13, 2018 September 30, 2021		Effective Date: DRAFT	

- I. PURPOSE: To establish minimum requirements for designation as a Ventura County peramedic perceptor.
- II. AUTHORITY: Health and Safety Code, Sections 1797.214 and 1798. California Code
  of Regulations, Title 22, Division 9, Section 100150

# III. DEFINITIONS:

- A. A fField tTraining Officer (FTO) is an agency designation for those personnel qualified to train others for the purposes of EMT ALS-Assist authorization,

  Pparamedic Accreditation, Level I or Level II Paramedic authorization/reauthorization.
- B. The <u>p</u>Paramedic <u>p</u>Preceptor <u>as identified in California Code of Regulations, is qualified to train paramedic student Interns. A paramedic preceptor may also be a FTO, when designated by that individual's agency.</u>

# IV. POLICY:

- A. A Paramedic may be designated a pracamedic preceptor upon completion of the following:
  - Be a licensed paramedic in the state of California, working in the field for at least the last two (2) years
  - Be under the supervision of the principal instructor, program director and/or program medical director of the applicable paramedic training program.
  - 3. 6 months, (minimum 1440 hours) practice in Ventura County as a Level II pramedic.
  - 4. Written approval submitted to VC-EMSA by employer.

- 5. Written approval submitted to VC-EMSA by the perehospital ceare ceoordinator at the base hospital of the area where the peramedic practiced the majority of the time.
- 6. Successful completion of <u>aThe-Ventura County Emergency Medical</u>
  Services Agency (VC-EMSA) <u>pParamedic pPreceptor tTraining course.</u>
- 7. Written notification of intent to practice as a peramedic perceptor shall be submitted to VC-EMSA prior to preceptor working in this capacity.
- B. <u>.</u> will be responsible for the training, supervision and evaluation of personnel in Ventura County who are preparing for accreditation or completion of requirements for Level I, Level II or EMT ALS Assist authorizations, and Paramedic Interns.
- C. A preceptor shall not precept or evaluate more than one person at a time.
- D. Paramedic Interns: Preceptors must directly observe the performance of all "Critical Procedures" and must be located in a position to immediately assume control of the procedure. The preceptor may not be functioning in any other capacity during these procedures.
  - 1. Critical Procedures:
  - a. Endotracheal Intubation
    - Paramedic Intern shall be limited to one attempt in difficult intubations (e.g., morbidly obese patients, neck or facial trauma, active vomiting, massive oropharyngeal bleeding).
       The intern will not make a second attempt.
  - b. Needle Thoracostomy
  - c. Intraosseous needle insertion
  - d. Childbirth
  - e. Drug-Medication Administration
  - f. PVAD
  - g. Intravenous Access when patient requires immediate administration of fluids and/or medication(s).
- F. Paramedics acting as preceptors for paramedic interns need to meet State of California, Title XXII requirements and successfully complete the Ventura County Preceptor Training course.

G. Each preceptor will be evaluated by their intern or candidate at the end of their training period. This evaluation will be forwarded to the preceptor's employer

# **Recommendation Form**

Employer: Please instruct the Paramedic to complete the listed. Upon employer approval the employer will contact contacting PCC for approval.	
approved to provide EMS Prehospital Care in the following in as defined in Ventura County EMS policies. I have reviewed attached to this recommendation.	
Please initial the appropriate box	
Paramedic Preceptor  All the requirement of level II met 6 months (minimum 1440 hrs.) practice in Ventura Composition of the VC EMS Preceptor Trace   Approval by employer Approval by the PCC at the base hospital of the area   majority of the time during the previous year Notification of VC EMS Completion of Curriculum Vitae	ining course.
Please sign and date below for approval.	
Employer	Date:
PCC, BH	Date:

COUNTY OF VENTURA			CY MEDICAL SERVICES	
HEALTH CARE AGENCY			ES AND PROCEDURES	
	Policy Title:		Policy Number	
EMT/Para	medic/MICN Decertification and Discipline		330	
APPROVED:		Deter		
Administration: Steven L. Carroll, Paramedic		Date:	Date.	
APPROVED:		Deter		
Medical Director:	Daniel Shepherd, M.D.	Date:		
Origination Date:	April 9, 1985			
Date Revised:			Effective Detect DDAET	
Date Last Reviewed: September 13, 2018			Effective Date: DRAFT	
Review Date: September 30, 2021				

- PURPOSE: Defines the disciplinary process regarding prehospital emergency care certificates including provision of counseling, placing certificate holder on probation or suspension, revocation of certificate, denial of renewal of certificate, or denial of certification.
- II. AUTHORITY: California Health and Safety Code, Section 1798.200
- III. POLICY: The Ventura County Emergency Medical Services Agency Director (VCEMSD) may provide counseling, place on probation, suspend from practice for a designated time period, deny or revoke certification or deliver reprimands to Ventura County Certified EMT, Paramedic, or MICN if their actions, while providing prehospital care, constitutes a threat to public health and safety.

# **GROUNDS FOR DISCIPLINARY ACTION:**

- A. Evidence that one or more of the following actions that constitute a threat to public health and safety has/have occurred:
  - 1. Fraud in the procurement of any certification, license or authorization.
  - 2. Gross negligence or repeated negligent acts
  - Incompetence.
  - 4. Commission of any fraudulent, dishonest, or corrupt act, which is substantially related to the qualifications, functions, and duties of prehospital personnel.
  - Conviction of any crime, which is substantially related to the qualifications, functions and duties of prehospital personnel. The record of conviction shall be considered conclusive evidence of conviction.
  - 6. Violation of or an attempt to violate or assistance in or abetting the violation of, or conspiring to violate, any provision of Division 2.5 of the Health and Safety Code, or of the regulations promulgated by the California State Emergency Medical

- Services Authority, or the County of Ventura pertaining to prehospital care personnel.
- 7. Violation of or an attempt to violate any federal or state statute or regulation, which regulates narcotics, dangerous drugs or controlled substances.
- 8. Addiction to the excessive use of, or the misuse of, alcoholic beverages, narcotics, dangerous drugs or controlled substances.
- Functioning as a Ventura County certified EMT, accredited Paramedic, or authorized MICN while under the influence of alcoholic beverages, narcotics, dangerous drugs or controlled substances.
- 10. Functioning outside the scope of the held certificate or independent of medical controls in the local prehospital emergency medical care system except as authorized by other license or certification.
- 11. Unprofessional conduct exhibited by any of the following:
  - a. The mistreatment or physical abuse of any patient resulting from force in excess of what a reasonable and prudent person trained and acting in a similar capacity while engaged in the performance of his or her duties would use if confronted with a similar circumstance. Nothing in this section shall be deemed to prohibit an EMT or Paramedic from assisting a peace officer, or a peace offer that is acting in the dual capacity of peace officer and EMT or Paramedic, from using that force that is reasonably necessary to affect a lawful arrest or detention.
  - b. The failure to maintain confidentiality of patient medical information,
     except, as disclosure is otherwise permitted or required by law in Section
     56 to 56.6, inclusive, of the California Civil Code.
  - c. The commission of any sexually related offense specified under Section 290 of the-California Penal Code.
- 12. Demonstration of irrational behavior or occurrence of a physical disability to the extent that a reasonable and prudent person would have reasonable cause to believe that the ability to perform the duties normally expected may be impaired.
- B. Failure to pass a certifying or recertifying examination shall be sufficient grounds for the denial of a certificate or the denial of the renewal of a certificate without a formal appeal process.

# IV. PROCEDURE:

A. Submission of Claim-

When any of the Grounds for Disciplinary Action are exhibited by a certificate holder, any individual observing such grounds may submit a written claim relative to the infraction as well as any other supporting evidence to the VCEMSD. Discovery through medical audit shall be considered as a source of information for action.

B. Notification of Claim against Certificate Holder.

Before any formal investigation is undertaken, the VCEMSD shall evaluate the claim(s) relative to the potential threat to the public health and safety and determine if further action appears to be warranted.

When such a claim is submitted to the VCEMS, D he/she shall notify the PCC and ED mMedical dD irector at the appropriate bBase hHospital shall be notified, and in addition to the ALS provider management (if the certificate holder is an EMT or pParamedic) of the claim. Notification of such a claim shall be given verbally within twenty-four (24) hours, or as soon as possible, followed by written notification within ten (1010) days. The written notice shall include:

- 1. A statement of the claim(s) against the certificate holder.
- A statement which explains that the claim(s), if found to be true, constitute a
  threat to the public health and safety and are cause for the VCEMSD to take
  disciplinary action pursuant to Section 1798.200 of the Health and Safety Code.
- 3. An explanation of the possible actions, which may be taken if the claims are found to be true.
- 4. A brief explanation of the formal investigation process.
- 5. A request for a written response to the claim(s) from the certificate holder.
- A statement that the certificate holder may submit in writing any information, which she/he feels in pertinent to the investigation, including statements from other individuals, etc.
- 7. The date by which the information must be submitted.
- 8. A statement that if she/he so chooses, the certificate holder may designate another person, including legal counsel or the certificate holder's employer, to represent him/her during the investigation.

This notification may be combined with notification of disciplinary action if the certificate holder's certificate is being immediately suspended.

The claim shall be responded to by the appropriate individual(s) and relevant information shall be submitted to the VCEMSD within fifteen (15) days after receipt of written notification.

C. Review of Submitted Material-

The VCEMSD shall review the submitted material and determine the appropriate disciplinary action.

- The nature of the disciplinary action shall be related to the severity of the risk to the public health and safety caused by the actions of the certificate holder or applicant for a prehospital care certificate.
- 2. The types of action, which may be taken prior to or subsequent to formal investigation, include:

  Immediate suspension: VCEMS may immediately suspend a prehospital emergency medical care certificate at any point in the investigative or appeal process if there is evidence which indicates in the expert opinion of the VCEMS 

  Medical Director that a continuing threat to the public health and safety will exist if the certificate is not suspended. The certificate holder's relevant employer shall be notified prior to or concurrent with initiation of the suspension. If the certificate is suspended prior to the initiation or completion of a review of the claims by an investigative review panel (IRP), an IRP shall not be required unless the certificate holder requests an IRP review, in writing, within fifteen (15) calendar days of the date that written notification is received. An expedited appeal hearing shall be convened if the certificate holder requests, in writing, such a hearing.

Written notification shall be sent by certified mail.

COUNTY OF VENT		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
HEALTH CARE AG	BENCY		
	Policy Title:	Policy Number:	
BLS	And ALS Unit Equipment And Supplies	504	
APPROVED:			
Administration:	Steven L. Carroll, Paramedic	Date:	
APPROVED:			
Medical Director	Daniel Shepherd, MD	Date:	
Origination Date:	May 24, 1987	1	
Date Revised:	April 12, 2018	Effective Date: <u>DRAFT</u>	
Last Reviewed:	April 12, 2018		
Review Date:	April 30, 2021		

- I. PURPOSE: To provide a standardized list of equipment and supplies for response and/or transport units in Ventura County.
- II. POLICY: Each response and/or transport unit in Ventura County shall be equipped and supplied according to the requirements of this policy.
- III. AUTHORITY: California Health and Safety Code Section 1797.178, 1797.204, 1797.218, 1797.221 and California Code of Regulations Sections 100148, 100306, 100404

# IV. PROCEDURE:

The following equipment and supplies shall be maintained on each response and/or transport unit in Ventura County.

Deviation from the standards outlined in this policy shall only be authorized with written approval from the VCEMS Medical Director.

Policy 504: ALS and BLS Unit Equipment and Supplies Policy 504:

		PSV/CCT	FR/AIS	Search and
	ALS / BLS Unit Minimum Amount	Minimum Amount	Minimum Amount	Rescue Minimum Amounts
A. ALL BLS AND ALS RESPONSE AND/OR TRANSPORT UNITS				CHICAGO
Clear masks in the following sizes:				
Child	1 each	1 each	1 each	1 adult
Infant Neonate				1 infant
Bag valve units				
Adult	1 each	1 each	1 each	1 adult
Nasai cannula Aduit	8	က	3	3
Nasopharyngeat airway (adult and child or equivalent)	1 each	1 each	1 each	1 each
Continuous positive airway pressure (CPAP) device	1 per size	1 per size	1 per size	1 per size
	ō	6	6	0
Blood glucose determination devices (optional for non-911 BLS units)	2	٠	*	1
Oral glucose 15gm unit dose	1	1	*	,
Orophanyngeal Airways Achait				
Ohido	1 each size	1 each size	1 each size	1 pach size
Infant Newborn			}	À
Oxygen with appropriate adjuncts (portability required)	10 L/min for 20 minutes	10 L/min for	10 L/min for 20	10 L/min for
Portable curiton an imment	·	ZU MINS.	mins.	ZU MINS.
Fortable Suctions equipment Fortable Suctions equipment Transpared rownen masks	-	~		1
Adult nonrebreather	ო	8	2	٥
Child	က	7	: 7	10
Bandage strissors	7	7	2	2
OLOGODO DE CONTROL DE	-	_	_	
Bandages				
<ul> <li>4"x4" sterile compresses or equivalent</li> </ul>	12	12	12	νΩ
• 2",3",4" or 6" roller bandages	9	0.0	တ	4 (
o A SU OI IAIBEL DIESSIFIU		0	ν	7
Blood pressure cuffs				•
Thigh	-		-	
Adult	·- v	· ·	<b></b> •	
Urant	- 4		- 4	-
Emesis basin/bag	-	1	<b>*</b>	-
Flashight	1		1	,
Traction splint or equivalent device		۳-	1	-
Pneumatic or rigid splints (capable of splinting all extremities)	4	4	4	4
Potable water or saline solution	4 liters	4 liters	4 liters	4 liters
Cervical spine immobilization device	2	2	2	2
Spinal Immobilization devices KED or equivalent	•	•	•	
יייים טייים אין סייים אין אין סייים אין אין סייים אין אין סייים אין אין טייים אין אין סייים אין אין אין אייים איין אייים אין אייים אין א		-	_	

	F F 4	TIBOUIL	Amount	Minimum Amounts
60" minimum with at least 3 sets of straps	1 4	0	1	
Sterile obstetrical kit	4	1	-	-
Tongue depressor		4	4	4
Cold packs	4	4	4	4
Tourniquet	-	-	-	1
1 mL/3 mL svringes with IM needles	4	4	4	4
Automated External Defibrillator (if not equipped with ALS monitor/defibrillator)	1	1	1	1
Personal Protective Equipment per State Guideline #216	1.0		- Z (	(
Rescue helmet	NI (\	~  ←	010	olo
With more	11 00	-1 -	0 0	0 0
Two suit	2 L / 2 XXL	1L/1XXL	101	101
Tychem hooded suit	2 L / 2 XXL	1 L / 1 XXL	OI	OI
Nitrile gloves	1 Med / 1 XL	1 Med / 1 XL	01	OI
Disposable footwear covers	1 Box	1 Box	OI	Ol
<u>Leather work gloves</u>	3 L Sets	1 L Set	Ol	01
Field operations guide	-	-	OI	0
OPTIONAL EQUIPMENT				
Occlusive dressing or chest seal		.,		
Hemostatic gauze per EMSA guidelines				
B. TRANSPORT UNIT REQUIREMENTS				
Ambulance cot and collapsible stretcher; or two stretchers, one of which is collapsible.	1	0	0	-
1	<del>\</del>	++	++	++
Straps to secure the patient to the stretcher or ambulance cot, and means of securing the stretcher or ambulance cot in	1 Set	0	0	1 Set
Soft And and wrist restraints.	-	0	0	0
Sheets, pillow cases, blankets and towels for each stretcher or ambulance cot, and two pillows for each ambulance	1	0	0	0
Bedpan	1	0	0	0
Urinal	1	0	0	0
Personal Protective Equipment per State Guideline #216				
Rescue helmet	Ci ·	₹+ :	Φ :	Ф
EMS-jacket	CH (	↔ •	0	Φ (
Work gaggles	CH C	+ ;	<b>D</b> (	<b>D</b> (
Tyvek suit	2L/2XX	1 / 1 XX	<b>D</b> C	Ф С
Hydrem Hodded Sulfi	1 Mod / 1 YI	1 Mod / 1 XI	<b>D</b> C	<b>D</b> C
Mitthe Gloves Discosolal Annual Coulors	1 Box	1 Box	• @	• •
Leatherwork cloves	31 Sets	1L Set	Φ	Ф
Field operations quide	++	++	0	0

Policy 504: ALS and BLS Unit Equipment and Supplies

	ALS / BLS Unit Minimum Amount	PSV/CCT Minimum Amount	FR/ALS Minimum Amount	Search and Rescue Minimum Amounts
C. ALS TRANSPORT UNIT REQUIREMENTS				
Cellular telephone		<b>4</b>	1	1
Alternate ALS airway device	2	4	+	-
Arm Boards	ALLEAN AND AND AND AND AND AND AND AND AND A	A A A A A A A A A A A A A A A A A A A		
18"	നന	00	<del></del> -	00
Cardiac monitoring equipment		-		-
CO <sub>2</sub> monitor	1	-	-	1
Colorimetric CO2 Detector Device	-	1	1	
Defibrillator pads or gel	т	ဧ	8	1 adult – No Peds.
Defibriliator w/adult and pediatric paddles/pads	l	-	done	-
EKG Electrodes	10 sets	3 sets	3 sets	6 sets
Endotracheal intubation tubes, sizes 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5 with stylets	1 of each size	1 of each size	1 of each size	4, 5, 6, 6.5, 7, 7.5, 8
EZ-{O intraosseous infusion system	1 Each Size	1 Each Size	1 Each Size	1 Each Size
Intravenous Fluids (in flexible containers)  Normal calina colution 500 ml				
Normal saline solution, 1000 ml	9	~~ 0	<b>←</b> 44	m
IV admin set - microdrip	4	_	2	2
IV admin set - macrodrip	4	_	4	က
IV catheter, Sizes I4, I6, I8, 20, 22, 24	6 each 14, 16, 18, 20 3 each 22 3 each 24	2 each	2 each	2 each
Laryngoscope, replacement bulbs and batteries	1 set	1 set	1 set	1 set
Curved blade #2, 3, 4 Straight blade #1, 2, 3	1 each 1 each	1 each 1 each	1 each 1 each	1 each
Magill forceps Adult Parlistric		~ ~	\$100 \$100	
Nebulizer	2	2	2	2
Nebulizer with in-line adapter		1	-	1
Needle Thoracostomy kit	2	2	2	2
Pediatric length and weight tape	~	1	-	-
SpO <sub>2</sub> Monitor (If not attached to cardiac monitor)	-		-	1
OPTIONAL ALS EQUIPMENT (No minimums apply)				
Frexible intubation stylet Cvanide Antidote Kit				
Syalinde Alindote Nil				

Policy 504: ALS and BLS Unit Equipment and Supplies Page 5 of 5

OR MILE Copional for ALS and non-911 BLS units), OR ing in 2 miles of a point		BLS Unit Minimum Amount	ALS Unit Minimum Amount	PSV/CCT Minimum Amount	FR/ALS Minimum Amount	Search and Rescue Minimum Amounts
State   Stat		***************************************				
Part	Adenosine, 6 ma		8	3	က	က
According the control of the contr	Albuteral 2 Smalls		9	2	က	<b>*</b>
Somginif Smilling Eleandary), 30 mg/ml Implication of Implication Smilling Eleandary), 30 mg/ml Implication of Implica	Aspiric 81mg		4 ea 81 mg	4 ea 81 mg	ea	4 ea 81 mg
1, 50 mg/ml   2	Amiodarone, 50mg/ml 3ml		9	3	9	3
1,50 mg/ml   2   1   1   1   1   1   1   1   1   1	Atronios suffate 1 mo/10 ml		2	2	2	2
Compared to prioral for ALS and non-911 BLS units), OR   Compared to prioral for non	Dinhenbudramine (Benadrul), 50 ma/ml		2	-	-	2
1   2   1   1   1   1   1   1   1   1	Calcium chloride 1000 mo/10 ml		2	*	٠	1
1   1   1   1   1   1   1   1   1   1	Concern contracts, evening to m.		2	_	2	1
sg/ml         2         4         2         2         4         2         2         4         2         2         4         2         2         4         2         2         2         2         2         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3         3 <td>Daytrace 11% 251 m</td> <td></td> <td>2</td> <td>Į.</td> <td>2</td> <td><b></b></td>	Daytrace 11% 251 m		2	Į.	2	<b></b>
og/ml bijector (0.3 mg), AND hijector (0.3 mg), AND hijector (0.15 mg) mg/ml (1 mg/10ml preparation)         2         4         2         2         4         2         2         4         2         2         4         2         2         4         2         2         2         3         3         3         4         2         1         1         1         1         1         1         1         1         1         1         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         3         3         3         3         3         3         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4 <td>Doubles 200, 2 F CM 10m3</td> <td></td> <td></td> <td>+</td> <td><del></del></td> <td>ı</td>	Doubles 200, 2 F CM 10m3			+	<del></del>	ı
Part	Dekilose 20/0 2.3 Own 10mi		9	2	2	2
Epinephrine - Inginil 1         2         4         2           I mL ampule I vial, OR Ped auto-injector (0.3 mg) AND Peds auto-injector (0.15 mg)         2         4         2           Peds auto-injector (0.15 mg) Peds auto-injector (0.15 mg)         2         4         2           Epinephrine D unginil (1 mg/10ml preparation)         2         1         1           Epinephrine Inginil, 30 ml multi-dose vial         2         2         1           I mg/ml         10 mg/ml         2         2         2           I mg/ml         2 mg/ml         2         2         2           Iffate, 10 mg/ml         2         5         5         5           M I No concentration - 2 mg in 2 mL preload foptional for non-911 BLS units), OR Noncentration - 2 mg in 2 mL preload foptional for non-911 BLS units), OR Noncentration - 2 mg in 2 mL preload foptional for non-911 BLS units), OR Noncentration - 2 mg in 2 mL preload foptional for non-914 BLS units), OR Noncentration - 2 mg in 2 mL preload foptional for non-914 BLS units), OR Noncentration - 2 mg in 2 mL preload foptional for non-914 BLS units), OR Noncentration - 2 mg in 2 mL preload foptional for non-914 BLS units), OR Noncentration - 2 mg in 2 mL preload foptional for non-914 BLS units), OR Noncentration - 2 mg in 2 m	Dexirose outs, 20 Givingo					
2	Epinephiline - Enimantripe 1malmi			6	,	٢
auto-injector (0.3 mg), AND auto-injector (0.15 mg) be 1 mg/ml, 30 ml multi-dose vial an per 2 ml am per 2 ml am per 2 ml argin ner 2 ml argin nor 1 mL (optional for non-911 BLS units), OR centration - 2 mg in 2 mL preload (optional for non-911 BLS units)  0 mEq/ml aingle use vial an of med/ml aingle use vial an of med/ml an	Cipilograme Visial OR	2	<b>†</b>	7	7	7
auto-injector (0.15 mg)  e unay(ml, 30 ml multi-dose vial)  e 1 mg/ml, 30 ml multi-dose vial  e 1 mg/ml, 30 ml multi-dose vial  gm per 2 ml  gm per	Adult autoriolector (0.3 mg) AND	2	7	2	2	2
Second State   Control of the cont	Additional automatics (Co. 118), mad Deale automatical (Co. 118), mad	2	4	2	2	2
1	Enimodytics (1 mot/flm) treparation)		9	3	9	4
Part Part Part Part Part Part Part Part	Epinephine Comment (1 mg/ compress)		•	-	+	-
Second			2	-	2	-
gm per 2 ml         4         1         1           ighml         2         2         2           e (Narcan)         2         5         5           action - 4 mg in 0.1 mL (optional for mon-911 BLS units)         42         5         5           centration - 2 mg in 2 mL preload (optional for mon-911 BLS units)         4         5         5           ions, 0.4 mg         2         2         2           0 mEg/ml         2         2         1           single use vial         4         4         4           in Advanced)         5 might         5 might           2 units         5 might         5 might	Lidonaine 100 molfml		2	2	2	2
g in 0.1 mL (optional for ALS and non-911 BLS units), OR     2     5     5       2 mg in 2 mL preload (optional for non-911 BLS units)     42     5     5       g     2     2     2       inl     2     2     1       inl     4     4     4       inl     5     6     4       inl     5     1     4       inl     5     1     1       inl     5     1     4       inl     5     1     1	Lidovalino, 190 vigoriii Manaeciim eulfata 1 am nar 2 ml		4	4	2	2
arcan)       2       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       5       1       2       2       2       2       2       2       2       2       2       2       2       2       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4       4 <td>Morphine sulfate, 10 mg/ml</td> <td></td> <td>2</td> <td>2</td> <td>2</td> <td>2</td>	Morphine sulfate, 10 mg/ml		2	2	2	2
9 in 0.1 mL (optional for ALS and non-911 BLS units), OR 42 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Malayana Hudraphinda (Naman)					
Incentration - 2 mg in 2 mL preload (optional for non-911 BLS units)	Indicating Hydrocan and Constitution - 4 mg in 0.1 mL (optional for ALS and non-911 BLS units), OR	2	2	5	ည	သ
ations, 0.4 mg         1 bottle         1 bottle           50 mEq/ml         2         2           single use vial         4         4           ral         5 mg/ml         5 mg/ml           rain         2 viale         2 viale	<ul> <li>IM / IV concentration - 2 mg in 2 mL preload (optional for non-911 BLS units)</li> </ul>	42	လ	5	ટ	2
50 mEq/ml     2     2       single use vial     4     4       ral     4     4       ral     5 mg/ml     5 mg/ml       oxinter (Naceal)     5 mg/ml     5 mg/ml	Nitroalycerine preparations, 0.4 mg		1 bottle	1 bottle	1 bottle	1 bottle
50 mEg/mi         2         1           / single use vial         4         4         4           ral         4         4         4         4           ral         5 mg/ml         5 mg/ml         5 mg/ml         5 mg/ml	Normal saline 10 ml		2	2	8	2
5 mg/ml 5 mg/ml 5 mg/ml	Sodium bicarbonate 50 mFo/m		2	-	ţm	1
5 mg/ml 5 mg/ml 5 mg/ml	Ordensetten Ama IV cinals use viol		4	4	4	4
5 mg/ml 5 mg/ml	Olioariscuoli 4 iligity single cas via		4	4	4	4
Slein C	Undansetion 4 mg oral		5 malml	5 ma/mi	5 ma/ml	5 ma/ml
Z VIGIS Z VIGIS	Midazolam Hydrochloride (Versed)		2 viats	2 vials	2 vials	2 vials

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		••
		,

# 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 Prior to Base Hospital Contact

## Perform 12-lead ECG

- Expedite transport to closest STEMI Receiving Center if monitor interpretation meets the manufacturer guidelines for 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)
  - o SL or lingual spray 0.4 mg q 5 min for continued pain
    - No max dosage
    - Maintain SBP greater than 100 mmHg
    - Aspirin
    - PO-324 mg

#### 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
  - o Maintain SBP greater than 100 mml-lg

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

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 0.1 mg/mL
  - Slow IV/IOP 0.1 mg (1 mL) increments over 1-2 minutes
    - Repeat every 3-5 min
      - Max 0.3 mg (3 mL)

# 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:

- 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.

June 1, 2018 Effective Date: Next Review Date: March 31, 2020

Date Revised: March 8, 2018 Last Reviewed: March 8, 2018

VCEMS Medical Director

COUNTY OF VENTU	JRA		HEALTH CARE AGENCY
EMERGENCY MEDI	CAL SERVICES	POI	LICIES AND PROCEDURES
	Policy Title		Policy Number:
	12 Lead ECG		726
APPROVED: Administration:			Date: June 1, 2018
APPROVED: Medical Director:	Daniel Shepherd, MD		Date: June 1, 2018
Origination Date:	August 10, 2006		
Date Revised:	March 8, 2018	Effective	ve Date: June 1, 2018
Date Last Reviewed:	March 8, 2018	Ellectiv	e Date. Julie 1, 2010
Review Date:	March 8, 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
  - After successful cardioversion/defibrillation of sustained V-Tach (Policy 705.25)
  - 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:
  - 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.
- 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, report that to MICN immediately, 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.
- 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

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- 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 of ECG is positive for STEMI, physician interpretation is Acute MI, the patient will be treated as a positive POS-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 another ECG once patient is in the ambulance. A STEMI alert will be initiated or not, based on this repeat ECG interpretation. Regardless if PECG is a STEMI alert or not, all patients from a medical facility will be transported to an SRC. Do not perform an additional ECG unless the ECG is of poor quality, or the patient's condition worsens.
- 2. If there is no interpretation of another ECG then repeat the ECG.
- 3. The original ECG performed by physician shall be obtained and accompany the patient.
- 12 Lead ECG will be scanned 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

- 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

 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:

