Public Health Administration Large Conference Room 2240 E. Gonzales, 2nd Floor Oxnard, CA 93036	Pre-hospital Services Committee Agenda	January 10, 2019 9:30 a.m.
I.	**Introductions**	
II.	**Approve Agenda**	
III.	**Minutes**	
IV.	**Medical Issues**	
	A. Other	
V.	**New Business**	
	A. 705 – Treatment Protocols Cover Page	Rosa/Shepherd
	1. 705.29 - Tranexamic Acid	Rosa/Shepherd
	2. 734 - Tranexamic Acid Administration	Rosa/Shepherd
	B. Push Dose Epinephrine	Rosa/Shepherd
	1. 705.02– Allergic Reaction and Anaphylaxis	
	2. 705.09– Chest Pain – Acute Coronary Syndrome	Rosa/Shepherd
	3. 705.11– Crush Injury/Syndrome	Rosa/Shepherd
	4. 705.21– Shortness of Breath – Pulmonary Edema	Rosa/Shepherd
	5. 705.22– Shortness of Breath – Wheezes/Other	Rosa/Shepherd
	6. 705.24– Symptomatic Bradycardia	Rosa/Shepherd
	7. 735 - Push Dose Epinephrine	Rosa/Shepherd
	C. 504 – ALS and BLS Equipment and Supplies	Chris Rosa
VI.	**Old Business**	
	A. Other	
VII.	**Informational/Discussion Topics**	
	A. Other	
VIII.	**Policies for Review**	
	A. 622 – ICE – In Case of Emergency for Cell Phones	
	B. 625 – Physician Orders for Life Sustaining Treatment (POLST)	
	C. 627 – Fireline Medic	
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	
X.	**Closing**	

Health Administration Large Conference Room 2240 E. Gonzales, 2nd Floor Oxnard, CA 93036	Pre-hospital Services Committee Minutes	October 11, 2018 9:30 a.m.

Topic	Discussion	Action	Approval
II. Approve Agenda		Approved	Motion: Nicole Vorzimer Seconded: Tom O'Connor Passed unanimous
III. Minutes		Approved	Motion: Nicole Vorzimer Seconded: Tom O'Connor Passed unanimous
IV. **Medical Issues**			
A. Push Dose Epinephrine	Dr. Shepherd is reviewing all the Epi doses in the 705 policies. The current dosages are on the high side and he will work with Chris Rosa and agency representatives to develop draft language before the next PSC meeting.	Bring back to next PSC.	Motion: Ira Tilles Second: Tom O'Connor Unanimous
V. New Business			
A. ROSC Policy	Tabled	Bring back to future PSC Meeting.	
VI. Old Business			
A. 319 – Paramedic Preceptor		Remove section "B" and replace it with section "C".	Motion: Kathy McShea Second: Tom O'Connor Unanimous
B. 330 – EMT/Paramedic/MICN Decertification and Discipline	Chris updated this policy to reflect the new regulations. IRP was removed and is now handled through an Administrative Judge.		Motion: Nicole Vorzimer Seconded: James Rosolek Passed unanimous
C. 504 – ALS/BLS Equipment		Chris will be working on updating this policy with the most current information. Bring back to next PSC.	Motion: Mike Sanders Second: James Rosolek Unanimous
VII. Informational/Discussion Topics			
A. 210 – Child, Dependent Adult or Elder Abuse Reporting		Tabled	

	B. 705.09 – Nitro Changes	Dr. Shepherd went over changes made to this policy.	Approved	Motion: Kathy McShea Second: Nicole Vorzimer Unanimous
	C. 726 - STEMI		Approved with presented changes.	Motion: Kathy McShea Second: Nicole Vorzimer Unanimous
VIII.	**Policies for Review**			
X.	**Agency Reports**			
	A. Fire departments	**VCFPD** – Mark Komins said there is a Benadryl Shortage and may need a waiver. **VCFD-**none **OFD** –none **Fed. Fire** – none **SPFD** – none **FFD** – none		
	B. Transport Providers	**LMT –** none **AMR/GCA** – **AIR RESCUE –**		
	C. Base Hospitals	**SVH** – They are now an official "Chest Pain Center". **LRRMC** – none **SJRMC –** none **VCMC** – none		
	D. Receiving Hospitals	**PVH –none** **SPH** – none **CMH** – Moving to new hospital on December 16, 2018. **OVCH** – none		
	E. Law Enforcement	**VCSO –**none **CSUCI PD –** none		
	F. ALS Education Programs	**Ventura College** – Paramedic Advisory Committee is scheduled for November 2, 2018.		
	G. EMS Agency	**Steve –** Katy is retiring and we are all going to miss her very much!! Thank you, Katy, for all your hard work and innovative programs. RFP went out last week. The work group will look over all applications received. **Dr. Shepherd -** none **Chris** – none **Katy** –none **Karen** –none		

	Julie –none **Randy** – none	
H. Other		
XI. Closing	**Meeting adjourned at 11:30**	

TEMPORARY
PARKING PASS
Expires January 10, 2019

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

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

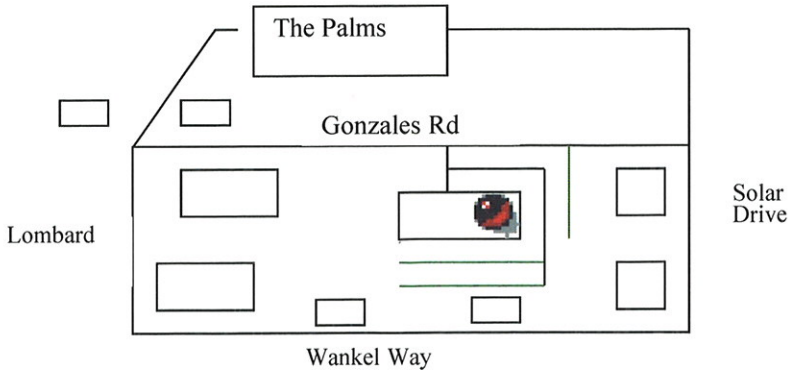
Parking Instructions: Parking at workshop venue is limited. Arrive early to allow for offsite parking if venue parking lot is full.

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.



Prehospital Services Committee 2018

For Attendance, please initial your name for the current month

Agency	LastName	FirstName	1/11/2018	2/8/2018	3/8/2018	4/12/2018	5/10/2018	6/14/2018	7/12/2018	8/9/2018	9/13/2018	10/11/2018	11/8/2018	12/11/2018	%
AMR	Stefansen	Adriane				AS				AS	AS				
AMR	Casey	Andrew	YC					AC		AC	AC	AC			
CMH - ER	Levin	Ross	NC		RL	RL		RL		RL		RL			
CMH - ER	Querol	Amy													
OVCH - ER	Pulido	Ed	EP		EP	EP				EP	EP	EP			
OVCH - ER	Ferguson	Catherine	CF		CF	CF				CF	CF				
CSUCI PD	Drehsen	Charles	CD		CD	CD		CD		CD	CD	CD			
CSUCI PD	Camp	Arnie	AC							AC					
FFD	Herrera	Bill	BH		BH	BH		BH		BH	BH	BH			
FFD	Panke	Chad						CP							
GCA	Villasenor	Alejandro						AV		AV		AV			
GCA	Sanders	Mike			MS	MS		MS		MS	MS	MS			
Lifeline	Rosolek	James	JR			JR					JR	JR			
Lifeline	Williams	Joey			JW					JW					
LRRMC - ER	Brooks	Kyle	KB			KB		KB		KB		KB			
LRRMC - ER	Shaner	Meghan	MS		MS	MS		MS		MS		MS			
OFD	Strong	Adam				SM						AS			
OFD	Villa	Jaime	JV		JV	JV		JV				JV			
SJPVH - ER	Hutchison	Stacy	SD			SD		SH		SH	KM	SH			
SJPVH - ER	Sikes	Chris	JD		CS	CS		CS		CS		CS			
SJRMC - ER	Larsen	Todd	TL		TL	TL		TL		TL	TL	TL			
SJRMC - ER	McShea	Kathy	KM		KM	KM		KM		KM	KM	KM			
SVH - ER	Tilles	Ira	IT		IT	IT		IT		IT		IT			
SVH - ER	Vorzimer	Nicole	NV		NV	NV		NV			NV	NV			
V/College	O'Connor	Tom	TO		TO	TO		TO		TO		TO			
VCFD	Tapking	Aaron			AT	AT									
VCFD	Ellis	Heather			JH	HE		HE		HE	HE				
VNC	Parker	Barry			SZ			BP		BP	BP	BP			
VNC	Dullam	Joe	JT			JT		JD				JD			
VNC - Dispatch	Gregson	Erica			EG	EG		EG			EG				
VCMC - ER	Chase	David			DC	DC		DC		DC	DC	DC			
VCMC - ER	Gallegos	Tom	TG		TG	TG		TG		TG	TG	TG			

Agency	LastName	FirstName	1/11/2018	2/8/2018	3/8/2018	4/12/2018	5/10/2018	6/14/2018	7/12/2018	8/9/2018	9/13/2018	10/11/2018	11/8/2018	12/11/2018	%
VCMC-SPH	Holt	Carrie	SM		SM	SM									
VCSO SAR	Hadland	Don	DH			DH					DH	DH			
VCSO SAR	Tolle	Jonathon								JT	JT	JT			
VFF	Santillo	Dave													
VFF	Vilaseca	James								JV					
Below names a	**Date Change/cancelled - not counted against member for attendance**														
EMS	Carroll	Steve	SC		SC	SC		SC		SC	SC	SC			
EMS	Frey	Julie	JF		JF	JF		JF		JF	JF	JF			
EMS	Hadduck	Katy	KH		KH	KH		KH		KH	KH	KH			
EMS	Perez	Randy			RP	RP		RP				RP			
EMS	Shepherd	Daniel			DS	DS		DS		DS		DS			
EMS	Rosa	Chris	CR		CR	CR		CR		CR		CR			
EMS	Salvucci	Angelo													
EMS	Hansen	Erik													
EMS	Beatty	Karen	KB		KB	KB		KB		KB	KB	KB			
EMS	Garcia	Martha				MG		MG		MG		MG			
LMT	Winter	Jeff	JW		JW	JW				JW	JW	JW			
LMT	Frank	Steve										SF			
State Parks	Futoran	Jack			JF	JF					JF				
VCMC	Hill	Jessica								JH	JH	JH			
VCMC	Duncan	Thomas				TD		TD				TD			
CMH	Hall	Elaina				EH		EH		EH		EH			
VNC	James	Lauri						LJ		LJ	LJ				
VNC	Shedlosky	Robin	RS		RS	RS		RS		RS					
VNC	Komins	Mark	MK		MK	MK		MK				MK			

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Treatment Protocols		Policy Number 705
APPROVED: Medical Director:	Daniel Shepherd, M.D.	Date: DRAFT
Origination Date: Date Revised: Date Last Revised: Review Date:	January 1988 See individual algorithms See individual algorithms See individual algorithms	Effective Date: As indicated on individual algorithms

I. PURPOSE: To provide uniform protocols for prehospital medical control in Ventura County.

II. AUTHORITY: Health and Safety Code 1797.220 and 1798; California Code of Regulations, Title 22, Division 9, Sections 100063, 100064, and100146.

A. DEFINITIONS:

1. Unless otherwise specified in an individual treatment protocol or policy, the following definitions shall apply:

a. Adult: Age 12 or greater (12th birthday and older)

b. Pediatric: Age less than 12 (up to 12th birthday)

B. Exceptions to the pediatric definition rule are in the following policies:

1. Policy 606: Withholding or Termination of Resuscitation and Determination of Death

2. Policy 705.29: Tranexamic Acid

3. Policy 710: Airway Management

4. Policy 717: Intraosseous Infusion

5. Policy 734: Tranexamic Acid Administration

C. Cardiac Monitor/12 Lead EKG

1. When cardiac monitoring or a 12 Lead ECG is performed, copies of rhythms strips and 12 Lead ECGs shall be submitted to the ALS Provider(s), Base Hospital, and Receiving Hospital.

IV. POLICY: Treatment protocols shall be used as a basis for medical direction and control for prehospital use.

A. Effective July 1, 2018 BLS personnel are authorized to administer the following medications and/or perform the following procedures for certain conditions as outlined below. BLS personnel shall not administer these medications and/or

perform these procedures until all required training has been completed, and all necessary equipment has been distributed. Training and equipment deployment shall be completed by all agencies no later than July 1, 2019.

1. Epinephrine for anaphylaxis or severe respiratory distress as a result of asthma.
2. Naloxone for suspected opioid overdose
3. Nerve Agent Antidote Kit (Pralidoxime Chloride and Atropine Sulfate) for suspected nerve agent or organophosphate exposure.
4. Determination of blood glucose level for altered neurological function and/or for suspected stroke
5. Continuous Positive Airway Pressure (CPAP) for shortness of breath.

B. In the event BLS personnel administer naloxone, epinephrine or a nerve agent antidote kit, ALS personnel will assume care of the patient as soon as possible and continue care at an ALS level, in accordance with all applicable VCEMS policies and procedures.

C. Hypoglycemic patients with a history of diabetes, who are fully alert and oriented following determination of blood glucose level and a single administration of 15g of oral glucose may be transported at a BLS level of care.

V. PROCEDURE: See the following pages for specific conditions.

Contents

Tranexamic Acid (TXA) Administration

ADULT (15 Years of Age and Over)

BLS Procedures

- Administer oxygen as indicated

ALS Prior to Base Hospital Contact

- IV/IO Access
- Initial Dose
  - IV/IOPB - 1gm TXA in 100mL NS over 10 minutes

Base Hospital Orders only

Consult with ED Physician for further treatment measures

Additional Information

- Prepare TXA concentration consistent with standards outlined in VCEMS Policy 734 – Tranexamic Acid (TXA) Administration
- During extended transports, usually in a CCT environment, caregivers may encounter different concentrations

COUNTY OF VENTURA HEALTH CARE AGENCY	EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Tranexamic Acid (TXA) Administration	Policy Number 734~~XXX~~
APPROVED: Administration: Steve L. Carroll, Paramedic	Date: DRAFT
APPROVED: Medical Director: Daniel Shepherd, M.D.	Date: DRAFT
Origination Date: Date Revised: Date Last Reviewed: Review Date:	Effective Date: DRAFT

I. PURPOSE: To define the indications, contraindications, and procedure related to administration of Tranexamic Acid (TXA) by paramedics.

II. AUTHORITY: Health and Safety Code, Sections 1797.220 and 1798. California Code of Regulations, Title 22, Sections 100145 and100169.

III. POLICY: Paramedics may administer TXA to patients presenting with hypovolemic shock secondary to trauma in accordance with this policy.

IV. PROCEDURE:

A. Indications

1. Blunt or penetrating traumatic injury with SBP less than or equal to 90mmHg
2. Significant hemorrhage not controlled by direct pressure, hemostatic agents, or tourniquet application **AND** SBP less than or equal to 90 mmHg

B. Contraindications

1. Greater than 3 hours post injury
2. Isolated spinal shock
3. Isolated head injury
4. Isolated extremity injury when bleeding has been controlled
5. Patient less than 15 years of age
6. Active thromboembolic event (within the last 24 hours); i.e., stroke, myocardial infarction, pulmonary embolism or DVT
7. History of hypersensitivity or anaphylactic reaction to TXA
8. Traumatic arrest with > 5 minutes of CPR without return of spontaneous circulation
9. Drowning or hanging victims

C. Precautions

1. Severe kidney disease
2. Pregnancy

D. Adverse Effects
   1. Chest Tightness
   2. Difficulty Breathing
   3. Facial flushing
   4. Swelling in hands and feet
   5. Blurred vision
   6. Hypotension with rapid IV infusion

E. Preparation
   1. Supplies Needed:
      i. 1gm Tranexamic Acid (TXA) (1)
      ii. 100mL bag of 0.9% normal saline (1)
      iii. 10mL syringe (1)
   2. Mixing Instructions
      i. Inject 1gm (10mL) of TXA into 100mL NS bag
   3. Maintain sterile technique
   4. Label bag with the drug name and final concentration
      i. Example: (TXA 1gm in 100mL NS)

F. Dosing
   1. IV/IO - 1gm in 100mL Normal Saline over 10 minutes

G. Communication and Documentation
   1. Communicate the use of TXA to the base hospital
   2. Administration of TXA and any/all associated fields will be documented in the Ventura County electronic Patient Care Report (VCePCR)

Allergic Reaction and Anaphylaxis

BLS Procedures

Administer oxygen as indicated
Anaphylaxis: Assist patient with prescribed epinephrine auto-injector, or

- If under 30 kg – Epinephrine IM 1 mg/mL
  - IM 0.15 mg via auto-injector, pre-filled syringe, or syringe/vial draw
    - May repeat x1 in 5 minutes if patient remains in distress
- If 30 kg and over – Epinephrine IM 1mg/mL
  - IM 0.3mg via auto-injector, pre-filled syringe, or syringe/vial draw
    - May repeat x1 in 5 minutes if patient remains in distress

ALS Prior to Base Hospital Contact

ADULT

IV/IO access

Allergic Reaction:

- **Benadryl**
  - IV/IO/IM – 50 mg
- **Albuterol (if wheezing is present)**
  - Nebulizer – 5 mg/6 mL
    - Repeat as needed

Anaphylaxis without shock:

- **Epinephrine** 1 mg/mL, if not already administered by BLS personnel
  - IM 0.3 mg
  - May repeat in ~~x 1 q~~ 5 minutes if patient remains in distress

Anaphylaxis with Shock:

- ~~Epinephrine IM 1 mg/mL as above "anaphylaxis without shock" if IV/IO has not been established~~
- Epinephrine 10mcg/mL
  - 1mL (10mcg) every 3-5 minutes, slow IV/IO push
  - Titrate to SBP of greater than or equal to 90mm/Hg
- ~~Epinephrine IV/IO 0.1 mg/mL~~
  - ~~o~~
- Initiate 2nd IV/IO
- **Normal Saline**
  - IV/IO bolus – 1 Liter
  - May repeat x 1 as indicated

PEDIATRIC

IV/IO Access

Allergic Reaction:

- **Benadryl**
  - IV/IO/IM – 1 mg/kg
    - Max 50 mg
- **Albuterol (if wheezing is present)**
  - **Patient less than 30 kg**
    - Nebulizer – 2.5 mg/3 mL
      - Repeat as needed
  - **Patient greater than 30kg**
    - Nebulizer – 5 mg/6 mL
      - Repeat as needed

Anaphylaxis without Shock:

- **Epinephrine 1 mg/mL, if not already administered by BLS personnel**
  - IM – 0.01 mg/kg to a max of 0.~~15 mg~~3mg
    - May repeat q 5 minutes, if patient remains in distress
      - ~~If patient under 30 kg, max dose is 0.3 mg~~
      - ~~If patient 30 kg and over, max dose is 0.6 mg~~

Anaphylaxis with Shock:

- ~~Epinephrine IM 1 mg/mL as above "anaphylaxis without shock" if IV/IO has not been established~~
- Epinephrine ~~IV/IO~~ 10mcg/mL
  - 0.1mL/kg (1mcg/kg) every 3-5 minutes, slow IV/IO push
  - Max single dose of 1mL or 10mcg
  - Titrate to SBP of greater than or equal to 80 mm/Hg
    - ~~0.1 mg/~~
    - ~~Slow IV/IOP - 0.01 mg/kg (0.1 mL/kg) increments over 1-2 minutes~~
      - ~~Max 0.03mg (3mL)~~
- Initiate 2nd IV if possible or establish IO
- **Normal Saline**
  - IV/IO bolus – 20 mL/kg
  - May repeat x 1 as indicated

Communication Failure Protocol

Anaphylaxis without Shock • Epinephrine 1mg/mL o IM 0.3 mg • May repeat in 5 minutes if patient remains in distress o ~~—~~ ~~Anaphylaxis with Shock~~ ~~• Epinephrine 1 mg/mL as above "anaphylaxis without shock" if IV/IO has not been established~~ ~~• *Repeat* **Normal Saline**~~ ~~o IV/IO bolus – 1 Liter~~ ~~• Epinephrine IV/IO 0.1 mg/mL~~ ~~o Slow IV/IOP - 0.01 mg (1 mL) increments over 1-2 minutes~~ ~~• Max 0.03 mg (3 mL)~~	~~Anaphylaxis without Shock~~ ~~• *Repeat* **Epinephrine 1 mg/mL**~~ ~~o IM – 0.01 mg/kg q 5 min x 2 as needed~~ ~~Anaphylaxis with Shock~~ ~~• Epinephrine 1 mg/mL as above "anaphylaxis without shock" if IV/IO has not been established~~ ~~• *Repeat* **Normal Saline**~~ ~~o IV/IO bolus – 20 mL/kg~~ ~~• **Epinephrine 0.1 mg/mL**~~ ~~o Slow IV/IOP – 0.01 mg/kg (0.1 mL/kg) increments over 1-2 min~~ ~~• Max 0.03 mg (3 mL)~~
Base Hospital Orders Only	
Consult with ED Physician for further treatment measures	
Additional Information • In cases of anaphylaxis or anaphylactic shock do not delay epinephrine administration for IV/IO access. Utilize IM Epinephrine prior to IV/IO epinephrine. • Refer to VCEMS Policy 735 for additional information on preparing push dose solution.	

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 and/or physician states ECG is positive for STEMI.
- 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 slow IV/IO push 1mL (10mcg) q 3-5 minutes
  - Max 3mL (30mcg) prior to base
  - Titrate to SBP greater than 90mm/Hg
- ~~**Epinephrine 0.1 mg/mL**~~
  - ~~Slow IV/IOP – 0.01 mg (1 mL) increments over 1-2 minutes~~
    - ~~Repeat every 3-5 min~~
      - ~~Max 0.03 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:

- To prepare the push dose epinephrine solution, push 10mL of 0.1mg/mL epinephrine from preload into 100mL bag of normal saline. Final concentration is essentially 10mcg/mL.
- Utilizing a 1mL tuberculine syringe, draw 1mL of solution prior to each administration.~~Discard1 mL from 10 mL saline flush syringe and draw 1 mL from epinephrine preload into flush syringe. This creates a solution of 100 mcg / 10 mL - or – 10 mcg / 1 mL.~~
- 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

Effective Date: December 1, 2018
Next Review Date: October 31, 2020
Date Revised: October 11, 2018
Last Reviewed: October 11, 2018

VCEMS Medical Director

- 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.

Crush Injury/Syndrome

ADULT	PEDIATRIC

BLS Procedures

Perform spinal precautions as indicated
Determine Potential vs. Actual Crush Syndrome
Administer oxygen as indicated

Maintain body heat

ALS Prior to Base Hospital Contact

Potential for Crush Syndrome
- IV/IO access
- ~~Maintain body heat~~
- Release compression
- Monitor for cardiac dysrhythmias

Communication Failure Protocol

Crush Syndrome

- Initiate 2nd IV/IO access
- **Normal Saline**
  - IV bolus – 1 Liter
    - Caution with cardiac and/or renal history
- **Sodium Bicarbonate**
  - IV mix – 1 mEq/kg
    - Added to 1st Liter of Normal Saline
- **Albuterol**
  - Nebulizer – 5 mg/6 mL
    - Repeat as needed
- **Morphine** – Per Policy 705 - Pain Control
- ~~Maintain body heat~~
- Release compression
- Monitor for cardiac dysrhythmias
- For cardiac dysrhythmias:
  - **Calcium Chloride**
    - IV – 1 g over 1 min

For continued shock
- *Repeat* **Normal Saline**
  - IV bolus – 1 Liter

Crush Syndrome

- Initiate 2nd IV/IO access if possible or establish IO
- **Normal Saline**
  - IV/IO bolus – 20 mL/kg
    - Caution with cardiac and/or renal history
- **Sodium Bicarbonate**
  - IV mix– 1 mEq/kg
    - Added to 1st Liter of Normal Saline
- **Albuterol**
  - **Patient less than 30 kg**
    - Nebulizer – 2.5 mg/3 mL
      - Repeat as needed
  - **Patient greater than 30 kg**
    - Nebulizer – 5 mg/6 mL
      - Repeat as needed
- ~~Maintain body heat~~
- **Morphine** – Per Policy 705 - Pain Control
- Release compression
- Monitor for cardiac dysrhythmias
- For cardiac dysrhythmias:
  - **Calcium Chloride**
    - IV/IO – 20 mg/kg over 1 min

For continued shock
- *Repeat* **Normal Saline**
  - IV/IO bolus – 20 mL/kg

Base Hospital Orders only

For persistent hypotension after fluid bolus:
- Epinephrine 10mcg/mL
  - 1mL (10mcg) every 3-5 minutes, slow IV/IO push
  - Titrate to SBP of greater than or equal to 90mm/Hg
- ~~**Epinephrine 0.1 mg/mL**~~
  - ~~Slow IV/IOP – 0.01 mg (1 mL) increments over 1-2 minutes~~
- ~~Repeat every 3-5 min~~
  ~~Max 0.03 mg (3 mL)~~

Consult with ED Physician for further treatment measures

For persistent hypotension after fluid bolus:
- Epinephrine 10mcg/mL
  - 0.1mL/kg (1mcg/kg) every 3-5 minutes, slow IV/IO push
  - Max single dose of 1mL or 10mcg
  - Titrate to SBP of greater than or equal to 80 mm/Hg
- ~~**Epinephrine 0.1mg/mL**~~
  - ~~Slow IV/IOP – 0.01 mg/kg (0.1 mL/kg) over 1-2 min~~
- ~~Repeat every 3-5 min~~
  ~~Max 0.03 mg (3 mL)~~

Consult with ED Physician for further treatment measures

Additional Information:

Effective Date: December 1, 2018
Next Review Date: October 31, 2020

Date Revised: October 11, 2018
Last Reviewed: October 11, 2018

VCEMS Medical Director

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- To prepare the push dose epinephrine solution, push 10mL of 0.1mg/mL epinephrine from preload into 100mL bag of normal saline. Final concentration is essentially 10mcg/mL.
- Utilizing a 1mL tuberculine syringe, draw 1mL of solution prior to each administration.~~Discard 1 mL from 10 mL saline flush syringe and draw 1 mL from epinephrine preload into flush syringe. This creates a solution of 100 mcg / 10 mL or 10 mcg / 1 mL~~
- Potential Crush Syndrome – Continuous crush injury to torso or extremity above wrist or ankle for 2 hours or less.
- Crush Syndrome – Continuous crush injury to torso or extremity above wrist or ankle for greater than 2 hours.
- If elderly or cardiac history is present, use caution with fluid administration. Reassess and treat accordingly.
- Dysrhythmias are usually secondary to Hyperkalemia. ECG monitor may show: Peaked T-waves, Absent P-waves, widened QRS complexes, bradycardia
- Calcium Chloride and Sodium Bicarbonate precipitate when mixed. Strongly consider starting a second IV (if feasible) for administration of Calcium Chloride

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Shortness of Breath – Pulmonary Edema

BLS Procedures

Administer oxygen as indicated

Initiate CPAP for moderate to severe distress

ALS Prior to Base Hospital Contact

Nitroglycerin

- SL or lingual spray – 0.4 mg q 1 min x 3
  - Repeat 0.4 mg q 2 min
  - No max dosage
  - Hold for SBP < 100 mmHg

If not already performed by BLS personnel, Initiate CPAP for moderate to severe distress

Perform 12-lead ECG (Per VCEMS Policy 726)

IV/IO access

If wheezes are present and suspect COPD/Asthma, consider:

- **Albuterol**
  - Nebulizer – 5 mg/6 mL
    - Repeat as needed

Communication Failure Protocol

If patient becomes or presents with hypotension

- Epinephrine slow IV/IO push 1mL (10mcg) q 3-5 minutes
  - Max 3mL (30mcg) prior to base
  - Titrate to SBP greater than 90mm/Hg
- ~~**Epinephrine 0.1 mg/mL**~~
  - ~~Slow IV/IOP – 0.01 mg (1 mL) increments over 1-2 min~~
  - ~~Repeat q 3-5 min~~
    - ~~Max 0.03 mg (3 mL)~~

Base Hospital Orders only

Consult with ED Physician for further treatment measures

Additional Information:

- To prepare the push dose epinephrine solution, push 10mL of 0.1mg/mL epinephrine from preload into 100mL bag of normal saline. Final concentration is essentially 10mcg/mL.
- Utilizing a 1mL tuberculine syringe, draw 1mL of solution prior to each administration.~~Discard 1 mL from 10 mL saline flush syringe and draw 1 mL from epinephrine preload into flush syringe. This creates a solution of 100 mcg / 10 mL - or – 10 mcg / 1 mL~~
- Nitroglycerin is contraindicated 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. In this situation, NTG may only be given by ED Physician order.

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Date Revised: October 11, 2018
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EMS Medical Director

Effective Date: December 1, 2018
Next Review Date: October 31, 2020

Date Revised: October 11, 2018
Last Reviewed: October 11, 2018

EMS Medical Director

Shortness of Breath – Wheezes/Other

ADULT

PEDIATRIC

BLS Procedures

Administer oxygen as indicated

Initiate CPAP for both moderate and severe distress – 8 years of age and older

Assist patient with prescribed Metered Dose Inhaler if available

Severe Distress Only
- Epinephrine 1 mg/mL
  - If Under 30 kg
    - IM 0.15 mg
      - May repeat x1 in 5 minutes if patient still in distress
  - If 30 kg and Over
    - IM – 0.3 mg
      - May repeat x 1 in 5 minutes if patient still in distress

ALS Prior to Base Hospital Contact

Perform Needle Thoracostomy if indicated per VCEMS Policy 715

If not already performed by BLS personnel, consider CPAP for both moderate and severe distress

Moderate Distress
- **Albuterol**
  - Nebulizer – 5 mg/6 mL
    - Repeat as needed
- Epinephrine 1 mg/mL, if not already administered by BLS personnel
  - IM 0.3mg
    - May repeat x 1 in 5 minutes if patient still in distress

Severe distress
- Epinephrine 1 mg/mL as above for moderate distress ~~if IV/IO has not been established~~
- ~~Epinephrine IV/IO 0.1 mg/mL~~
  - ~~Slow IV/IOP-0.01 mg (1 mL) increments over 1-2 minutes~~
    - ~~Max 0.03 mg (3 mL)~~
    - ~~~~

If hypotensive, consider alternative etiologies and refer to additional treatment protocols

~~If not already performed by BLS personnel, consider CPAP for both moderate and severe distress~~

IV/IO access

Perform Needle Thoracostomy if indicated per VCEMS Policy 715

If not already performed by BLS personnel, consider CPAP if age 8 years old and greater

Moderate Distress
- **Albuterol**
  - **Patient less than 30 kg**
    - Nebulizer – 2.5 mg/3 mL
      - Repeat as needed
  - **Patient greater than 30 kg**
    - Nebulizer – 5 mg/6 mL
      - Repeat as needed
- Epinephrine 1 mg/mL, if not already administered by BLS personnel
  - IM – 0.01 mg/kg to a max of 0.15 mg
    - May repeat distress 5 minutes, if patient remains in distress
      - If patient under 30kg, max dose is 0.3 mg
      - If patient 30 kg and over, max dose is 0.6 mg

Severe Distress
- Epinephrine 1 mg/mL, as above for moderate distress ~~if IV/IO has not been established.~~
- ~~Epinephrine IV/IO 0.1 mg/mL~~
- ~~Slow IV/IOP-0.01 mg/kg (0.1 mL/kg) increments over 1-2 minutes~~
- ~~Max 0.03 mg (3 mL)~~

Suspected Croup
- **Normal Saline**
  - Nebulizer/Aerosolized Mask – 5 mL

If hypotensive, consider alternative etiologies and refer to additional treatment protocols

~~If not already performed by BLS personnel, consider CPAP if age 8 years old and greater~~

IV/IO access

Communication Failure Protocol

Base Hospital Orders only

Suspected Croup and no improvement with Normal Saline nebulizer
- Less than 30 kg
  - **Epinephrine 1mg/mL**
    - Nebulizer/Aerosolized Mask – 2.5 mg/2.5mL
- 30 kg and greater
  - **Epinephrine 1mg/mL**
    - Nebulizer/Aerosolized Mask – 5mg/5 mL

Consult with ED Physician for further treatment measures

Effective Date: December 1, 2018
Next Review Date: October 31, 2020

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Last Reviewed: October 11, 2018

VCEMS Medical Director

Additional Information:

- Discard 1 mL from 10 mL saline flush syringe and draw 1 mL from epinephrine preload into flush syringe. This creates a solution of 100 mcg / 10 mL - or – 10 mcg / 1 mL
- High flow O_2 is indicated for severe respiratory distress, even with a history of COPD
- COPD patients have a higher susceptibility to spontaneous pneumothorax due to disease process
- If suspected Arterial Gas Embolus/Decompression Sickness secondary to SCUBA emergencies, transport patient in supine position on 15L/min O_2 via mask. Early BH contact is recommended to determine most appropriate transport destination.

Symptomatic Bradycardia

ADULT (HR less than 45 bpm)	PEDIATRIC (HR less than 60 bpm)
BLS Procedures	
Administer oxygen as indicated Supine position as tolerated	Administer oxygen as indicated Assist ventilations if needed If significant ALOC, initiate CPR
ALS Prior to Base Hospital Contact	
IV/IO access **Obtain 12-lead ECG** **Atropine** • IV/IO – 0.5 mg (1 mg/10 mL) **Transcutaneous Pacing (TCP)** • Should be initiated only if patient has signs of hypoperfusion • Should be started immediately for 3º heart blocks and 2º Type 2 (Mobitz II) heart blocks • If pain is present during TCP o **Morphine** – per policy 705.19 - Pain Control	**If CPR indicated, intiate CAM and reference appropriate cardiac arrest treatment protocol** **IV/IO access** • IO access only if patient in extremis **Epinephrine** ~~**0.1mg/mL**~~ • Epinephrine slow IV/IO push 0.001 mg/kg (max 10mcg or 1mL) o Max 0.01mg/kg q 5 minutes o Max 3 doses prior to base o Titrate to weight-appropriate SBP (see chart in Policy XXX – Push Dose Epi) • ~~IV/IO – 0.01 mg/kg (0.1 mL/kg) q 3-5 min~~
Communication Failure Protocol	
If symptoms persist for 3 minutes after first atropine dose and if no capture with TCP **Atropine** o IV/IO – 0.5 mg q 3-5 min • Max 0.04 mg/kg • Epinephrine slow IV/IO push 1mL (10mcg) q 3-5 minutes • Max 3mL (30mcg) prior to base • Titrate to SBP greater than 90mm/Hg • ~~**Epinephrine 0.1 mg/mL**~~ o ~~Slow IV/IOP – 0.01 mg (1 mL) increments over 1-2 min~~ • ~~Repeat q 3-5 min~~ • ~~Max 0.03 mg (3 mL)~~	If symptoms persist and unable to maintain weight-appropriate SBP **Epinephrine** • Epinephrine slow IV/IO push 0.001 mg/kg (max 10mcg or 1mL) o Max 0.01mg/kg q 5 minutes o Max 3 additional doses o Titrate to weight-appropriate SBP (see chart in Policy XXX – Push Dose Epi)
Base Hospital Orders only	
For suspected hyperkalemia • **Calcium Chloride** o IV/IO – 1 g over 1 min • Withhold if suspected digitalis toxicity • **Sodium Bicarbonate** o IV/IO – 1 mEq/kg	**Atropine** • IV/IO – 0.02 mg/kg o Minimum dose – 0.1 mg
Consult with ED Physician for further treatment measure	
Additional Information • Bradycardia does not require treatment unless signs and symptoms are present (chest pain, altered level of consciousness, abnormal skin signs, profound weakness, shortness of breath or low BP) • To prepare the push dose epinephrine solution, push 10mL of 0.1mg/mL epinephrine from preload into 100mL bag of normal saline. Final concentration is essentially 10mcg/mL. • Utilizing a 1mL tuberculine syringe, draw 1mL of solution prior to each administration.~~Discard 1 mL from 10 mL saline flush syringe and draw 1 mL from epinephrine preload into flush syringe. This creates a solution of 100 mcg / 10 mL - or – 10 mcg / 1 mL~~	

Effective Date: DRAFT
Next Review Date: October 31, 2020
Date Revised: October 11, 2018
Last Reviewed: October 11, 2018

VCEMS Medical Director

COUNTY OF VENTURA HEALTH CARE AGENCY	EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Push Dose Epinephrine	Policy Number
APPROVED: Administration: Steve L. Carroll, Paramedic	Date: DRAFT
APPROVED: Medical Director: Daniel Shepherd, M.D.	Date: DRAFT
Origination Date: Date Revised: Date Last Reviewed: Review Date:	Effective Date: DRAFT

I. PURPOSE: To define the indications, contraindications, and procedure related to administration of push dose epinephrine

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 administer push dose epinephrine to adult and pediatric patients as defined by VCEMSA treatment protocols.

IV. Procedure:

A. Classification

1. Sympathomimetic agent (catecholamine)

B. Indications

1. Anaphylaxis with shock (ref: 705.02 – Allergic reaction / anaphylaxis)
2. Hypotension secondary to heart failure (ref: 705.09 – Chest Pain – Acute Coronary Syndrome)
3. Hypotension secondary to Crush Injury (ref: 705.11 – Crush Injury)
4. Hypotension secondary to SOB with Pulmonary Edema (ref: 705.21 – SOB - Pulmonary Edema)
5. Symptomatic bradycardia (ref: 705.24 – Symptomatic Bradycardia)

C. Contraindications

1. None

D. Adverse Effects

Cardiovascular	**Neurological**	**Gastrointestinal**
Tachycardia	Anxiety	Nausea / Vomiting
Hypertension	Dizziness	
Chest Pain	Headache	
Palpitations	Tremors	
Arrhythmias		

E. Actions

Increases blood pressure and cardiac output via stimulation of alpha and beta adrenergic receptors.

F. Preparing the Concentration

1. Adults and Pediatrics

- Using a "cardiac preload": 1mg/10mL (0.1 mg/mL or 100 mcg/mL)
  - Supplies Needed
    - 1 – 0.1mg/mL epinephrine preload syringe
    - 1 – 100mL bag of 0.9% normal saline
    - 1 – 1mL syringe
  - Mixing Instructions
    - Push 10mL of 0.1mg/mL epinephrine from preload into 100mL bag of normal saline
    - Final concentration is essentially 10mcg/mL

2. Points to Remember

- Confirm your concentration prior to mixing
- Maintain sterile technique
- Label the bag with the drug name and final concentration
  - Example: "Epinephrine 10mcg/mL"
- DO NOT administer epinephrine and sodium bicarbonate in the same vascular access line and/or location unless that line has been flushed with at least 10mL of normal saline.

G. Dosing

1. Adults

- 1mL (10mcg) every 3-5 minutes, slow IV/IO push
  - Titrate to SBP of greater than or equal to 90mm/Hg

2. Pediatrics

- 0.1mL/kg (1mcg/kg) every 3-5 minutes, slow IV/IO push
  - Max single dose of 1mL or 10mcg
  - Titrate to SBP of greater than or equal to 80 mm/Hg

H. Communication and Documentation

1. Communicate the use of push dose epinephrine to base hospital
   - Include final concentration delivered
   - Report total amount of push dose epinephrine administered, total elapsed time of administration, and patient response
2. Administration of epinephrine and any/all associated fields will be documented in the Ventura County electronic Patient Care Report (VCePCR)

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: BLS And ALS Unit Equipment And Supplies		Policy Number: 504
APPROVED: Administration:	Steven L. Carroll, Paramedic	Date: DRAFT
APPROVED: Medical Director	Daniel Shepherd, MD	Date: DRAFT
Origination Date: Date Revised: Last Reviewed: Review Date:	May 24, 1987 October 11, 2018 October 11, 2018 October 31, 2021	Effective Date: DRAFT

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 (see attached Equipment/Medication Waiver Request form) from the VCEMS Medical Director. Mitigation attempts should be documented in the comment section on the waiver request form, such as what vendors were contacted, etc.

	ALS / BLS Unit Minimum Amount	PSV/CCT Minimum Amount	FR/ALS Minimum Amount	Search and Rescue Minimum Amounts
A. ALL BLS AND ALS RESPONSE AND/OR TRANSPORT UNITS				
Clear masks in the following sizes: Adult Child Infant Neonate	1 each	1 each	1 each	1 adult 1 infant
Bag valve units Adult Child	1 each	1 each	1 each	1 adult
Nasal cannula Adult	3	3	3	3
Nasopharyngeal 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
Nerve Agent Antidote Kit	9	9	9	0
Blood glucose determination devices *(optional for non-911 BLS units)*	2	1	1	1
Oral glucose 15gm unit dose	1	1	1	1
Oropharyngeal Airways Adult Child Infant Newborn	1 each size	1 each size	1 each size	1 each size
Oxygen with appropriate adjuncts (portability required)	10 L/min for 20 minutes	10 L/min for 20 mins.	10 L/min for 20 mins.	10 L/min for 20 mins.
Portable suction equipment	1	1	1	1
Transparent oxygen masks Adult nonrebreather Child Infant	 3 3 2	 2 2 2	 2 2 2	 2 2 2
Bandage scissors	1	1	1	1
Bandages • 4"x4" sterile compresses or equivalent • 2",3",4" or 6" roller bandages • 10"x 30" or larger dressing	 12 6	 12 2 0	 12 6 2	 5 4 2
Blood pressure cuffs Thigh Adult Child Infant	 1 1 1 1	 1 1 1 1	 1 1 1 1	 1 1 1 1
Emesis basin/bag	1	1	1	1
Flashlight	1	1	1	1
Traction splint or equivalent device	1	1	1	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	1	1	1	1

	ALS / BLS Unit Minimum Amount	PSV/CCT Minimum Amount	FR/ALS Minimum Amount	Search and Rescue Minimum Amounts
60" minimum with at least 3 sets of straps	1	0	1	
Sterile obstetrical kit	1	1	1	1
Tongue depressor	4	4	4	4
Cold packs	4	4	4	4
Tourniquet	1	1	1	1
1 mL, ~~and~~ 5 mL, and 10 mL syringes 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				
Rescue helmet	2	1	0	0
EMS jacket	2	1	0	0
Work goggles	2	1	0	0
Tyvek suit	2 L / 2 XXL	1 L / 1 XXL	0	0
Tychem hooded suit	2 L / 2 XXL	1 L / 1 XXL	0	0
Nitrile gloves	1 Med / 1 XL	1 Med / 1 XL	0	0
Disposable footwear covers	1 Box	1 Box	0	0
Leather work gloves	3 L Sets	1 L Set	0	0
Field operations guide	1	1	0	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
Straps to secure the patient to the stretcher or ambulance cot, and means of securing the stretcher or ambulance cot in the vehicle.	1 Set	0	0	1 Set
Soft Ankle and wrist restraints.	1	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

	ALS / BLS Unit Minimum Amount	PSV/CCT Minimum Amount	FR/ALS Minimum Amount	Search and Rescue Minimum Amounts
C. ALS UNIT REQUIREMENTS				
Cellular telephone	1	1	1	1
Alternate ALS airway device	2	1	1	1
Arm Boards 9" 18"	 3 3	 0 0	 1 1	 0 0
Cardiac monitoring equipment	1	1	1	1
CO_2 monitor	1	1	1	1
Colorimetric CO2 Detector Device	1	1	1	1
Defibrillator pads or gel	3	3	3	1 adult – No Peds.
Defibrillator w/adult and pediatric paddles/pads	1	1	1	1
EKG Electrodes	10 sets	3 sets	3 sets	6 sets
Endotracheal intubation tubes, sizes 6.0, 6.5, 7.0, 7.5, 8.0 with stylets	1 of each size	1 of each size	1 of each size	4, 5, 6, 6.5, 7, 7.5, 8
EZ-IO intraosseous infusion system	1 Each Size	1 Each Size	1 Each Size	1 Each Size
Intravenous Fluids (in flexible containers) • Normal saline solution, 100 ml • Normal saline solution, 500 ml • Normal saline solution, 1000 ml	 2 2 6	 1 1 2	 1 1 4	 1 1 3
IV admin set - macrodrip	4	1	4	3
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 Curved blade #2, 3, 4 Straight blade #1, 2, 3	1 set 1 each 1 each	1 set 1 each 1 each	1 set 1 each 1 each	1 set 1 each 1 each
Magill forceps Adult Pediatric	 1 1	 1 1	 1 1	 1 1
Nebulizer	2	2	2	2
Nebulizer with in-line adapter	1	1	1	1
Needle Thoracostomy kit	2	2	2	2
Pediatric length and weight tape	1	1	1	1
SpO_2 Monitor (If not attached to cardiac monitor)	1	1	1	1
OPTIONAL ALS EQUIPMENT (No minimums apply)				
Flexible intubation stylet				
Cyanide Antidote Kit				

	BLS Unit Minimum Amount	ALS Unit Minimum Amount	PSV/CCT Minimum Amount	FR/ALS Minimum Amount	Search and Rescue Minimum Amounts
D. MEDICATION, MINIMUM AMOUNT					
Adenosine, 6 mg		3	3	3	3
Albuterol 2.5mg/3ml		6	2	3	1
Aspirin, 81mg		4 ea 81 mg	4 ea 81 mg	4 ea 81 mg	4 ea 81 mg
Amiodarone, 50mg/ml 3ml		6	3	6	3
Atropine sulfate, 1 mg/10 ml		2	2	2	2
Diphenhydramine (Benadryl), 50 mg/ml		2	1	1	2
Calcium chloride, 1000 mg/10 ml		2	1	1	1
Dextrose					
• 5% 50ml, OR		2	1	2	1
• 10% 250 ml, OR		5	2	2	2
• 25% 2.5 GM 10ml, OR		1	1	1	1
• 50%, 25 GM/50		2	1	2	1
Epinephrine					
• Epinephrine , 1mg/ml	2	5	5	5	5
• 1 mL ampule / vial, OR	2	4	2	2	2
• Adult auto-injector (0.3 mg), AND Peds auto-injector (0.15 mg)	2	4	2	2	2
• Epinephrine 0.1mg/ml (1 mg/10ml preparation)		6	3	6	4
Glucagon, 1 mg/ml		2	1	2	1
Lidocaine, 100 mg/5ml		2	2	2	2
Magnesium sulfate, 1 gm per 2 ml		4	4	4	4
Midazolam Hydrochloride (Versed)		5 mg/ml 2 vials	5 mg/ml 2 vials	5 mg/ml 2 vials	5 mg/ml 2 vials
Morphine sulfate, 10 mg/ml		2	2	2	2
Naloxone Hydrochloride (Narcan)					
• IN concentration - 4 mg in 0.1 mL (optional for ALS and non-911 BLS units), OR	2	5	5	5	5
• IM / IV concentration – 2 mg in 2 mL preload (optional for non-911 BLS units)	2	5	5	5	5
Nitroglycerine preparations, 0.4 mg		1 bottle	1 bottle	1 bottle	1 bottle
Normal saline, 10 ml		2	2	2	2
~~Sodium bicarbonate, 50 mEq/ml~~		~~2~~	~~1~~	~~1~~	~~1~~
Ondansetron					
• 4 mg IV single use vial		4	4	4	4
• 4 mg oral		4	4	4	4
~~Ondansetron 4 mg oral~~		~~4~~	~~4~~	~~4~~	~~4~~
~~Midazolam Hydrochloride (Versed)~~		~~5 mg/ml 2 vials~~	~~5 mg/ml 2 vials~~	~~5 mg/ml 2 vials~~	~~5 mg/ml 2 vials~~
Sodium Bicarbonate, 50 mEq/mL		2	1	1	1
Tranexamic Acid (TXA) 1 gm/10 mL		2	1	1	1

COUNTY OF VENTURA HEALTH CARE AGENCY	EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: ICE – In Case of Emergency for Cell Phones	Policy Number 622
APPROVED: Administration: Steven L. Carroll, EMT-P	Date: December 1, 2008
APPROVED: Medical Director: Angelo Salvucci, M.D.	Date: December 1, 2008
Origination Date: May 11, 2006 Date Revised: May 11, 2006 Date Last Reviewed: September 11, 2014 Next Review Date: September, 2017	Effective Date: December 1, 2008

I. PURPOSE: To inform EMS providers of the ICE (In Case of Emergency) program that is promoted for personal cell phones. This is described as a universally-recognized mechanism to provide prompt notification to a family member or other designated contact of an ill or injured patient, and perhaps obtain information about a patient's medical history.

II. AUTHORITY: Division 2.5 of the Health and Safety Code, Sections 1797.214 and 1798

III. DEFINITIONS: "ICE" is an acronym for "In Case of Emergency".

IV. PROCEDURE: It may be practical for EMS Providers to briefly search for a cell phone or other identification when working with a patient that is unable to provide this information. These items could then be provided to law enforcement or transported with the patient to the hospital. EMS providers are not usually the ones who make emergency notifications to family members or other third parties. This is normally done by law enforcement, hospitals or others involved in the situation. Searching for cell phones or making notifications, whether to an ICE contact or other third party, should never delay patient assessment, treatment, or transport. Currently, there are no applicable federal laws that *require* an EMS provider to check a patient's cell phone and attempt to make contact with the patient's ICE designee. If the EMS Provider attempts to make a notification, they should only disclose personal health information about the patient that is directly relevant to their involvement with the patient's health care. This notification should be documented on the approved Ventura County documentation system.

COUNTY OF VENTURA HEALTH CARE AGENCY	EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Physician Orders for Life-Sustaining Treatment (POLST)	Policy Number 625
APPROVED Administrator: Steven L. Carroll, Paramedic	Date: December 1, 2014
APPROVED: Medical Director: Angelo Salvucci, M.D.	Date: December 1, 2014
Origination Date: January 7, 2009 Date Revised: October 9, 2014 Date Last Reviewed: October 9, 2014 Review Date: October, 2016	Effective Date: December 1, 2014

I. PURPOSE: To permit Ventura County Emergency Medical Services personnel to honor valid POLST forms and provide end-of-life care in accordance with a patient's wishes.

II. AUTHORITY: California Health and Safety Code, Sections 1798 and 7186. California Probate Code, Division 4.7 (Health Care Decisions Law).

III. DEFINITIONS:

A. "EMS Personnel": All EMTs, Paramedics and RNs caring for prehospital or interfacility transfer patients as part of the Ventura County EMS system.

B. Valid Physician Orders for Life-Sustaining Treatment (POLST). A completed and signed physician order form, according to California Probate Code, Division 4.7 and approved by the California Emergency Medical Services Authority.

IV. POLICY:

A. A POLST form must be signed by the patient or surrogate and physician to be valid.

B. Although an original POLST form is preferred, a copy or FAX is valid.

C. When a valid POLST form is presented, EMS personnel will follow the instructions according to the procedures below.

D. The POLST form is intended to supplement, not replace, an existing Advance Health Care Directive. If the POLST form conflicts with the Advance Health Care Directive, the most recent order or instruction of the patient's wishes governs.

V. PROCEDURE:

A. Confirm that:

1. The patient is the person named in the POLST.

2. The POLST form, Section D, is signed by the patient or surrogate and physician. The form is not valid if not signed by both.

B. POLST form - Section A:

1. If the patient has no pulse and is not breathing AND "Do Not Attempt Resuscitation/DNR" is selected, refer to VC EMS Policy 613 – Do Not Resuscitate.
2. If the patient has no pulse and is not breathing AND EITHER "Attempt Resuscitation/CPR" is selected OR neither option is selected then begin resuscitation. (Selecting CPR in Section A requires selecting Full Treatment in Section B)

C. POLST Form – Section B: This section applies if the patient has a pulse and/or is breathing.

1. If **"Full Treatment**" is selected, the following treatments may be done as indicated:
    a. All items included in Selective and Comfort-Focused Treatment
    b. Intubation and other advanced airway interventions
    c. Mechanical Ventilation
    d. Cardioversion / Defibrillation

2. If **"Selective Treatment"** is selected, the following treatments may be done as indicated:
    a. All items included in Comfort-Focused Treatment
    b. General Medical Treatment
    c. IV Antibiotics
    d. IV Fluids
    e. Non-Invasive positive airway pressure

3. If **"Comfort-Focused Treatment"** is selected, the following treatments may be done as indicated:
    a. Relieve pain and suffering with medication by any route as needed
    b. Oxygen
    c. Suctioning
    d. Manual treatment of airway obstruction

Do not use treatments listed in Full and/or Selective Treatment unless consistent with comfort goal. Request transfer to hospital **only** if comfort needs cannot be met in current location.

D. If there is any conflict between the written POLST orders and on-scene individuals, contact the base hospital.

E. Take the POLST form with the patient.

VI. DOCUMENTATION:

For all cases in which a patient has been treated according to a POLST form, the following documentation is required in the narrative section of the Ventura County Electronic Patient Care Report (VCePCR):

A. A statement that the orders on a POLST form were followed.

B. The section of the POLST form that was applicable.

HIPAA PERMITS DISCLOSURE OF POLST TO OTHER HEALTHCARE PROVIDERS AS NECESSARY

Physician Orders for Life-Sustaining Treatment (POLST)

EMSA #111 B
(Effective 10/1/2014)*

First follow these orders, then contact physician. A copy of the signed POLST form is a legally valid physician order. Any section not completed implies full treatment for that section. **POLST complements an Advance Directive and is not intended to replace that document.**

Patient Last Name:	Date Form Prepared:
Patient First Name:	Patient Date of Birth:
Patient Middle Name:	Medical Record #: *(optional)*

A — Cardiopulmonary Resuscitation (CPR): *If patient has no pulse and is not breathing.*

If patient is NOT in cardiopulmonary arrest, follow orders in Sections B and C.

Check One

☐ **Attempt Resuscitation/CPR** (Selecting CPR in Section A **requires** selecting Full Treatment in Section B)

☐ **Do Not Attempt Resuscitation/DNR** (Allow Natural Death)

B — Medical Interventions: *If patient is found with a pulse and/or is breathing.*

Check One

☐ **Full Treatment – primary goal of prolonging life by all medically effective means.**
In addition to treatment described in Selective Treatment and Comfort-Focused Treatment, use intubation, advanced airway interventions, mechanical ventilation, and cardioversion as indicated.

☐ ***Trial Period of Full Treatment.***

☐ **Selective Treatment – goal of treating medical conditions while avoiding burdensome measures.**
In addition to treatment described in Comfort-Focused Treatment, use medical treatment, IV antibiotics, and IV fluids as indicated. Do not intubate. May use non-invasive positive airway pressure. Generally avoid intensive care.

☐ ***Request transfer to hospital only if comfort needs cannot be met in current location.***

☐ **Comfort-Focused Treatment – primary goal of maximizing comfort.**
Relieve pain and suffering with medication by any route as needed; use oxygen, suctioning, and manual treatment of airway obstruction. Do not use treatments listed in Full and Selective Treatment unless consistent with comfort goal. ***Request transfer to hospital only if comfort needs cannot be met in current location.***

Additional Orders: _____

_____

C — Artificially Administered Nutrition: *Offer food by mouth if feasible and desired.*

Check One

☐ Long-term artificial nutrition, including feeding tubes.
☐ Trial period of artificial nutrition, including feeding tubes.
☐ No artificial means of nutrition, including feeding tubes.

Additional Orders: _____

_____

_____

D — Information and Signatures:

Discussed with: ☐ Patient (Patient Has Capacity) ☐ Legally Recognized Decisionmaker

☐ Advance Directive dated _____, available and reviewed →
☐ Advance Directive not available
☐ No Advance Directive

Healthcare Agent if named in Advance Directive:
Name: _____
Phone: _____

Signature of Physician

My signature below indicates to the best of my knowledge that these orders are consistent with the patient's medical condition and preferences.

Print Physician Name:	Physician Phone Number:	Physician License Number:
Physician Signature: *(required)*		Date:

Signature of Patient or Legally Recognized Decisionmaker

I am aware that this form is voluntary. By signing this form, the legally recognized decisionmaker acknowledges that this request regarding resuscitative measures is consistent with the known desires of, and with the best interest of, the patient who is the subject of the form.

Print Name:		Relationship: *(write self if patient)*
Signature: *(required)*		Date:
Mailing Address (street/city/state/zip):	Phone Number:	Office Use Only:

SEND FORM WITH PATIENT WHENEVER TRANSFERRED OR DISCHARGED

*Form versions with effective dates of 1/1/2009 or 4/1/2011 are also valid

HIPAA PERMITS DISCLOSURE OF POLST TO OTHER HEALTHCARE PROVIDERS AS NECESSARY

Patient Information		
Name (last, first, middle):	Date of Birth:	Gender: **M F**

Healthcare Provider Assisting with Form Preparation ☐ N/A if POLST is completed by signing physician		
Name:	Title:	Phone Number:

Additional Contact ☐ None		
Name:	Relationship to Patient:	Phone Number:

Directions for Healthcare Provider

Completing POLST

- **Completing a POLST form is voluntary.** California law requires that a POLST form be followed by healthcare providers, and provides immunity to those who comply in good faith. In the hospital setting, a patient will be assessed by a physician who will issue appropriate orders that are consistent with the patient's preferences.
- **POLST does not replace the Advance Directive.** When available, review the Advance Directive and POLST form to ensure consistency, and update forms appropriately to resolve any conflicts.
- POLST must be completed by a healthcare provider based on patient preferences and medical indications.
- A legally recognized decisionmaker may include a court-appointed conservator or guardian, agent designated in an Advance Directive, orally designated surrogate, spouse, registered domestic partner, parent of a minor, closest available relative, or person whom the patient's physician believes best knows what is in the patient's best interest and will make decisions in accordance with the patient's expressed wishes and values to the extent known.
- A legally recognized decisionmaker may execute the POLST form only if the patient lacks capacity or has designated that the decisionmaker's authority is effective immediately.
- POLST must be signed by a physician and the patient or decisionmaker to be valid. Verbal orders are acceptable with follow-up signature by physician in accordance with facility/community policy.
- If a translated form is used with patient or decisionmaker, attach it to the signed English POLST form.
- Use of original form is strongly encouraged. Photocopies and FAXes of signed POLST forms are legal and valid. A copy should be retained in patient's medical record, on Ultra Pink paper when possible.

Using POLST

- Any incomplete section of POLST implies full treatment for that section.

Section A:

- If found pulseless and not breathing, no defibrillator (including automated external defibrillators) or chest compressions should be used on a patient who has chosen "Do Not Attempt Resuscitation."

Section B:

- When comfort cannot be achieved in the current setting, the patient, including someone with "Comfort-Focused Treatment," should be transferred to a setting able to provide comfort (e.g., treatment of a hip fracture).
- Non-invasive positive airway pressure includes continuous positive airway pressure (CPAP), bi-level positive airway pressure (BiPAP), and bag valve mask (BVM) assisted respirations.
- IV antibiotics and hydration generally are not "Comfort-Focused Treatment."
- Treatment of dehydration prolongs life. If a patient desires IV fluids, indicate "Selective Treatment" or "Full Treatment."
- Depending on local EMS protocol, "Additional Orders" written in Section B may not be implemented by EMS personnel.

Reviewing POLST

It is recommended that POLST be reviewed periodically. Review is recommended when:

- The patient is transferred from one care setting or care level to another, or
- There is a substantial change in the patient's health status, or
- The patient's treatment preferences change.

Modifying and Voiding POLST

- A patient with capacity can, at any time, request alternative treatment or revoke a POLST by any means that indicates intent to revoke. It is recommended that revocation be documented by drawing a line through Sections A through D, writing "VOID" in large letters, and signing and dating this line.
- A legally recognized decisionmaker may request to modify the orders, in collaboration with the physician, based on the known desires of the patient or, if unknown, the patient's best interests.

This form is approved by the California Emergency Medical Services Authority in cooperation with the statewide POLST Task Force.
For more information or a copy of the form, visit **www.caPOLST.org.**

SEND FORM WITH PATIENT WHENEVER TRANSFERRED OR DISCHARGED

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Fireline Medic		Policy Number 627
APPROVED: Administration:	Steven Carroll, Paramedic	Date: December 1, 2014
APPROVED: Medical Director	Angelo Salvucci, M.D.	Date: December 1, 2014
Origination Date: Date Revised: Date Last Reviewed: Review Date:	October 5, 2011 September 11, 2014 September 11, 2014 September, 2016	Effective Date: December 1, 2014

I. PURPOSE: To establish procedures for a fireline paramedic (FEMP) response from and to agencies within or outside local EMS agency (LEMSA) jurisdiction when requested through the statewide Fire and Rescue Mutual Aid System, to respond to and provide advanced life support (ALS) care on the fireline at wildland fires.

II. AUTHORITY: California Health and Safety Code, Division 2.5, Sections 1797.204, 1797.220; California Code of Regulations, Title 22, Division 9, Sections 100165 and 100167

III. POLICY:

A. County accredited paramedics shall carry the ALS/BLS inventory consistent with the FIRESCOPE FEMP position description. Reasonable variations may occur; however, any exceptions shall have prior approval of the VCEMSA. The equipment lists are a scaled down version of standard inventory in order to meet workable/packable weight limitations (45 lbs including wildland safety gear, divided between a two person team. Weight limit to include the Personal Pack Inventory as outlined in FireScope).

1. It will not be possible to maintain standard ALS minimums on the fireline. The attached ALS inventory essentially prioritizes critical and probable fireline needs.

2. VCEMS accredited paramedics may function within their scope of practice, when serving in an authorized capacity assignment, as an agent of their authorized ALS fire agency.

IV. PROCEDURE:

A. Under the authority of State regulations, a paramedic may render ALS care during emergency operations as long as the following conditions are met:

1. The paramedic is currently licensed by the State of California and is accredited by the Ventura County EMS Agency.
2. The paramedic is currently employed with a Ventura County ALS provider and possesses the requisite wildland fireline skills and equipment.
3. The paramedic practices within the treatment guidelines set forth in VCEMSA policies and procedures manual. Paramedics operating in the capacity of a fireline paramedic (FEMP) shall follow VCEMSA communication failure protocol.
4. The FEMP is expected to check in and obtain a briefing from the Logistics Section Chief, or the Medical Unit Leader (MEDL) if established at the Wildfire Incident.
5. Documentation of patient care will be completed as per VCEMSA policy 1000.
    a. Documentation of patient care will be submitted to incident host agencies. A VCePCR shall be completed for all ALS patients contacted, and shall be completed by the FEMP upon return to camp, or as soon as practical.
6. Continuous Quality Improvement activities shall be in accordance with VCEMSA standards.

APPENDIX A

FIRELINE EMERGENCY MEDICAL TECHNICIAN

BASIC LIFE SUPPORT (BLS) PACK INVENTORY

	Airway, NPA Kit (1)		Mask, Face, Disposable w/eye shield (1)
	Airway, OPA Kit (1)		Mylar Thermal Survival Blanket (2)
	Bag Valve Mask (1)		Pad, Writing (1)
	Bandage, Sterile 4 x 4 (6)		Pen and Pencil (1 ea.)
	Bandage, Triangular (2)		Pen Light (1)
	Biohazard Bag (2)		Petroleum Dressing (2)
	Burn Sheet (2)		Shears (1)
	Cervical Collar, Adjustable (1)		Sphygmomanometer (1)
	Coban Wraps/Ace Bandage (2 ea.)		Splint, Moldable (1)
	Cold Pack (3)		Splinter Kit (1)
	Commercially Available Tourniquet (1)		
	Dressing, Multi-Trauma (4)		Stethoscope (1)
	Exam Gloves		Suction, Manual Device (1)
	Eye Wash (1 bottle)		Tape, 1 inch, Cloth (2 rolls)
	Glucose, Oral (1 Tube)		Triage Tags (6)
	Kerlix, Kling, 4.5, Sterile (2)		Triangular Dressing with Pin (2)
	Digital Thermometer (1)		

APPENDIX B

FIRELINE EMERGENCY MEDICAL TECHNICIAN

PARAMEDIC (ALS) PACK INVENTORY **IN ADDITION TO THE BASIC LIFE SUPPORT INVENTORY, THE FOLLOWING ADDITIONAL ITEMS OR EQUIVALENTS SHALL BE CARRIED BY THE FEMP

ALS AIRWAY EQUIPMENT:

	Endotracheal Intubation Equipment (6.0, 7.5 ET – Mac 4, Miller 4, stylette and handle)		ETT Verification Device
	End Tidal CO2 Detector		Needle Thoracostomy Kit (1)
			Pulse Oximeter (Optional)
	ETT Restraint		Rescue Airway (1)

IV/MEDICATION ADMIN SUPPLIES:

	1 ml TB Syringe (2)		20 ga. IV Catheter (2)
	10 ml Syringe (2)		IV Site Protector (2)
	18 ga. Needle (4)		IV Administration Set-Macro-Drip (2)
	25 ga. Needle (2)		Alcohol Preps (6)
	Adult EZ-IO Kit (1)		Betadine Swabs (4)
			E-Z IO Stabilizer
	EZ Connect tubing (2)		Glucometer Test Strips (4)
	25 mm EZ-IO Needle (1)		Lancet (4)
	45 mm EZ-IO Needle (1)		Razor (1)
	14 ga. IV Catheter (2)		Tape (1)
	16 ga. IV Catheter (2)		Tourniquet (2)
	18 ga. IV Catheter (2)		

MISCELLANEOUS:

	AMA Paper Forms (3)		PCR Paper Forms (6)
	FEMP Pack Inventory Sheet (1)		Sharps Container – Small(1)
	Narcotic Storage (per agency policy)		

BIOMEDICAL EQUIPMENT:

	Defibrillator Electrodes (2)		Glucometer (1)
	Defibrillator with ECG waveform display (1)		

MEDICATIONS:

	Amiodarone 50 mg/ml 3 ml (2)		Epinephrine 1:1,000 1 mg (4)
	Albuterol – 90mcg/puff (1 MDI) with Spacer Device		Glucagon 1 mg/unit (1)
	Aspirin-Chewable (1 Bottle)		Midazolam 20 mg
	Atropine Sulfate 1mg (2)		Morphine Sulfate 10 mg/ml (6)
			Naloxone – 2mg (2)
	Dextrose 50% 25 G. Pre-Load (1)		Nitroglycerin 1/150 gr (1)
	Diphenhydramine 50 mg (4)		Saline 0.9% IV 1,000 ml – Can be configured into two 500 ml or four 250 ml
	Epinephrine 1:10,000 1mg (2)		5% Dextrose in Water, 50 ml (1)