

To: ALL VENTURA COUNTY EMS POLICY MANUAL HOLDERS

DATE: June 30, 2019

**New Policies or Procedures**

Policy Status	Policy #	Title/New Title	Notes
New Procedure	0614	Spinal Motion Restriction	SMR procedure replaced past "immobilization"
New Procedure	0733	CAM and Post Arrest Resuscitation	Post Arrest Resuscitation procedure added
New Policy	0734	Tranexamic Acid Administration	Outlines TXA administration
New Procedure	0725	TASER	Barb removal added

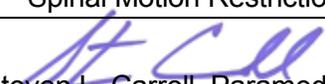
**Updated Policies**

Policy Status	Policy #	Title/New Title	Notes
Updated Policies	0705	Treatment Protocols Cover	
	0705_01	Trauma Treatment Guidelines	TXA added
	0705_14	Hypovolemic Shock	TXA added
	0732	Restraints	
	0451	Stroke Triage and Destination	Updated time criteria and ELVO 3+1
	0504	ALS and BLS equipment	TXA added
	0607	Hazardous Material Exposure	
	0627	Fireline Medic	
	0210	Abuse Reporting Guidelines	Minor changes, penal codes removed
	0625	POLST	Current state form added
	0920	Reddinet Policy	Hospital names updated
	1401	Trauma Center Designation	
1403	Trauma Data	Non-trauma centers added	

**Retired Policies**

Policy Status	Policy #	Title/New Title	Notes
Retired	0622	In Case of Emergency Cell Phone	Retired, has become common knowledge

705 Minor Changes			
Policy Status	Policy #	Title/New Title	Notes
Minor Updates	0705_02	Allergic Reaction Anaphylaxis	All 705 "Prior to contact" orders changed to "standing orders". BHC still gets made however this title change clarifies that standing orders remain in effect for the entirety of EMS patient care.
	0705_03	Altered Neurologic Function	
	0705_04	Behavioral Emergencies	
	0705_05	Bites and Stings	
	0705_06	Burns	
	0705_07	Cardiac Arrest Asystole and PEA	
	0705_08	Cardiac Arrest VF-VT	
	0705_09	Chest Pain	
	0705_10	Childbirth	
	0705_11	Crush Injury	
	0705_12	Heat Emergencies	
	0705_13	Cold Emergencies	
	0705_14	Hypovolemic Shock	
	0705_15	Nausea/Vomiting	
	0705_16	Neonatal Resuscitation	
	0705_17	Nerve Agent/Organophosphate Poisoning	
	0705_18	Overdose	
	0705_19	Pain Control	
	0705_20	Seizures	
	0705_21	SOB Pulmonary Edema	
	0705_22	SOB Wheezes	
	0705_23	Supraventricular Tachycardia	
	0705_24	Symptomatic Bradycardia	
	0705_25	VT Sustained	
	0705_26	Suspected Stroke	
	0705_27	Sepsis	
	0705_28	Smoke Inhalation	

Policy Title: Spinal Motion Restriction	Policy Number 614
APPROVED: Administration:  Steven L. Carroll, Paramedic	Date: June 1, 2019
APPROVED: Medical Director:  Daniel Shepherd, M.D.	Date: June 1, 2019
Origination Date: October 1992 Date Revised: March 12, 2019 Date Last Reviewed: March 12, 2019 Review Date: March 31, 2021	Effective Date: June 1, 2019

- I. PURPOSE: To define the use of spinal motion restriction by field personnel in Ventura County.
- II. AUTHORITY: Health and Safety Code, Sections 1797.214, 1797.220, 1798, and 1798.200, CCR Division 9, Chapter 4, Sections 100175, 100179
- III. DEFINITION:
  - 1. Spinal motion restriction: the use of cervical collars, gurneys, and other commercial devices to limit the movement of patients with potential spine injuries. Spinal motion restriction refers to the same concept as “spinal immobilization,” which traditionally incorporates the use of rigid backboards. This technique often limits movement but rarely provides true “immobilization.” The goal of spinal motion restriction is to maintain spinal alignment and limit unwanted movement. “This can be accomplished by placing the patient on a long backboard, a scoop stretcher, a vacuum mattress, or an ambulance cot.”<sup>1</sup>
- IV. POLICY:
  - 1. Spinal motion restriction is a procedure that should be performed judiciously.
  - 2. Backboards are a tool that may be utilized for patient movement and CPR. They should not be used for transport unless necessary to continue patient care (e.g. unconscious patient)
  - 3. Patients should be secured to the gurney with gurney straps whenever possible. A slide board should be used to transfer the patient to the hospital gurney.
  - 4. Cervical collars should be used in the appropriate patients as defined below. Patients with or without a cervical collar should then be secured to the gurney with gurney straps. Patient should then be instructed to remain as still as possible. Awake and alert, potentially ambulatory patients, not intoxicated, without neurologic symptoms and/or deficits, can self-extricate (after application of cervical collar if indicated).<sup>2</sup>

5. In the event of simultaneous transport of more than one patient requiring spinal motion restriction, the second patient should be secured supine to the bench seat. A backboard can be used if necessary.

V. PROCEDURE: Patients who meet any of the following criteria require spinal motion restriction:

1. Any trauma patient who complains of neck pain and/or back pain and has spinal tenderness.
  2. Any patient with known or suspected trauma with altered level of consciousness to the extent that their appreciation of pain or ability to communicate is impaired.
  3. Any trauma patient with a neurological deficit (e.g. numbness, weakness)
  4. Any patient under the influence of drugs or alcohol alcohol to the extent that appreciation of pain or ability to communicate is impaired.
  5. Patients suffering from severe distracting painful injuries for whom the mechanism of injury is unknown or suspicious for spinal injury.
- A. The awake, alert patient, not under the influence of alcohol or drugs to the extent that appreciation of pain is altered, with whom you can communicate effectively, who denies spine pain or tenderness, is neurologically intact, and does not have a distracting injury, should not be placed in spinal motion restriction.
- B. Cervical immobilization is not necessary in the awake, alert patient, not under the influence of alcohol or drugs to the extent that appreciation of pain is altered, with whom you can communicate effectively, who complains of isolated lumbar pain or tenderness but denies cervical pain or tenderness and does not have weakness, numbness, or a distracting injury.
- C. Spinal motion restriction is contraindicated in patients with penetrating torso or neck injury. Transportation must be expedited. DO NOT place these patients in spinal motion restriction. A backboard may be utilized for patient movement and/or CPR. A cervical collar is not necessary.

VI. Special Procedure for Care of Potentially Spine-Injured Football Athlete

- A. The facemask should always be removed prior to transportation, regardless of current respiratory status.
  1. Tools for facemask removal include screwdriver, FM Extractor, Anvil Pruners, or ratcheting PVC pipe cutter should be readily accessible.

2. All loop straps of the facemask should be cut and the facemask removed from the helmet, rather than being retracted.
- B. The helmet should not be removed during the prehospital care of the football athlete with a potential spinal injury, unless:
1. After a reasonable period of time, the face mask cannot be removed to gain access to the airway,
  2. The design of the helmet and chin strap is such that even after removal of the face mask, the airway cannot be controlled, or ventilation provided.
  3. The helmet and chin straps do not hold the head securely such that immobilization of the helmet does not also immobilize the head, or
  4. The helmet prevents immobilization for transport in an appropriate position.
- C. If the helmet must be removed, a neutral head position must be maintained during removal.
1. In most circumstances, it may be helpful to remove cheek padding and/or deflate the air padding prior to helmet removal.
  2. If the helmet is removed, the shoulder pads must be removed at the same time or the head padded to maintain neutral position.
- D. If needed, the front of the shoulder pads can be opened to allow access for CPR and defibrillation. They should only be removed if the helmet is removed at the same time.

## VII. Pediatric patients

- A. The approach to pediatric patients is similar to that for adults. There is no need to employ spinal motion restriction based on age criteria alone.
- B. The index of suspicion for spine injury should be higher given the increased difficulty communication with younger patients. Indications for spinal motion restriction include:
1. Complaint of neck pain
  2. Torticollis
  3. Neurologic deficit
  4. Altered mental status including GCS <15, intoxication, and other signs (agitation, apnea, hypopnea, somnolence, etc.)
  5. Involvement in a high-risk motor vehicle, high impact diving injury, or has substantial torso injury
- C. Appropriate patients can be secured to gurney in their car seat. An appropriately sized c-collar should be applied if indicated.

<sup>1</sup> Spinal Motion Restriction in the Trauma Patient – A Joint Position Statement  
Fischer PE, Perina DG, Delbridge TR, Fallat ME, Salomone JP, Dodd J, Bulger EM, Gestring ML.  
Prehosp Emerg Care. 2018 Nov-Dec;22(6):659-661. doi: 10.1080/10903127.2018.1481476. Epub 2018 Aug 9.

<sup>2</sup> Dixon M, O'Halloran J, Cummins NM  
Biomechanical analysis of spinal immobilisation during prehospital extrication: a proof of concept study  
Emerg Med J 2014;31:745-749.

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Cardiac Arrest Management (CAM) and Post Arrest (ROSC) Resuscitation		Policy Number 733	
APPROVED: Administration:  Steven L. Carroll, Paramedic		Date: June 1, 2019	
APPROVED: Medical Director:  Daniel Shepherd, MD		Date: June 1, 2019	
Origination Date: April 30, 2016		Effective Date: June 1, 2019	
Date Revised: March 14, 2019			
Date Last Reviewed: March 14, 2019			
Next Review Date: March 31, 2020			

- I. PURPOSE: To establish a standardized procedure for the treatment of patients in cardiac arrest, and for those 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 all patients in cardiac arrest and are greater than 48 hours old, CAM protocol will be followed. Patients less than 48 hours old will follow VC EMS Neonatal Resuscitation Policy # 705.16. For patients who are 18-years-old and older, who achieve ROSC following a cardiac arrest that is non-traumatic in nature, post arrest (ROSC) protocol outlined in Section V of this policy will be followed.

IV. PROCEDURE  
A. Arrest



Ventura County EMS

Cardiac Arrest Management (CAM) Protocol

For patients who are in cardiac arrest and greater than 48 hours old ①

**\*\*\*\*\*PRIORITIES DURING CARDIAC ARREST RESUSCITATION\*\*\*\*\***

1. High Quality Continuous Chest Compressions with minimal interruptions
2. Low-volume interposed ventilations
3. Early defibrillation
4. Switch Compressors every 2 Minutes



**Rescuer 1**

- Verify Cardiac Arrest (<10 seconds)
  - Shake and Shout
  - Open airway with “Shark Hook” maneuver (If trauma, modified jaw thrust)
    - **Pulse check helpful for heroin OD or cervical spine injury**
  - **If suspected FBAO:** **BLS:** Inspect Airway; **ALS:** Laryngoscopy
- **If not breathing:**
  - Move patient to place that will allow optimal CPR
  - Immediately Start High Quality Continuous Compressions Over Shirt②



**Rescuer 2**

- Turn on metronome (112/minute)
- Remove clothing over chest.
- Apply AED or Cardiac Monitor/Defibrillator pads③



Basic Life Support (AED)	Advanced Life Support (Manual Defib)
<ul style="list-style-type: none"> <li>• Turn on AED</li> <li>• Apply Pads</li> <li>• Clear patient then press Analyze</li> </ul>	<ul style="list-style-type: none"> <li>• Turn on Cardiac Monitor</li> <li>• Apply Pads</li> <li>• Pre-charge monitor④</li> </ul>

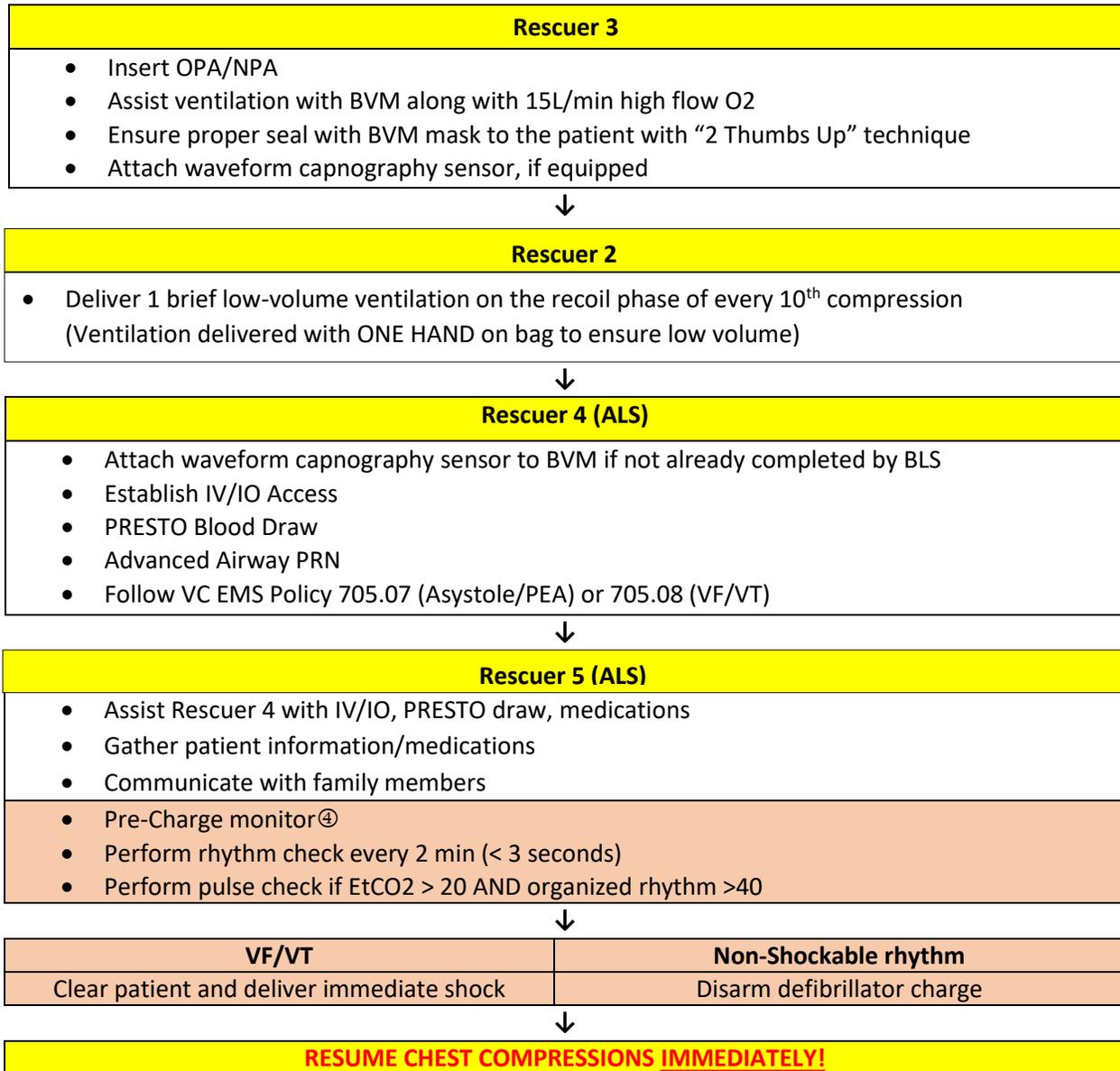


“Shock Advised”	“No Shock Advised”	VF/VT	Non-Shockable rhythm
If AED allows , resume chest compressions during charge Clear patient and press “Shock”		Clear patient and deliver immediate shock	Disarm defibrillator charge



**RESUME CHEST COMPRESSIONS IMMEDIATELY!**



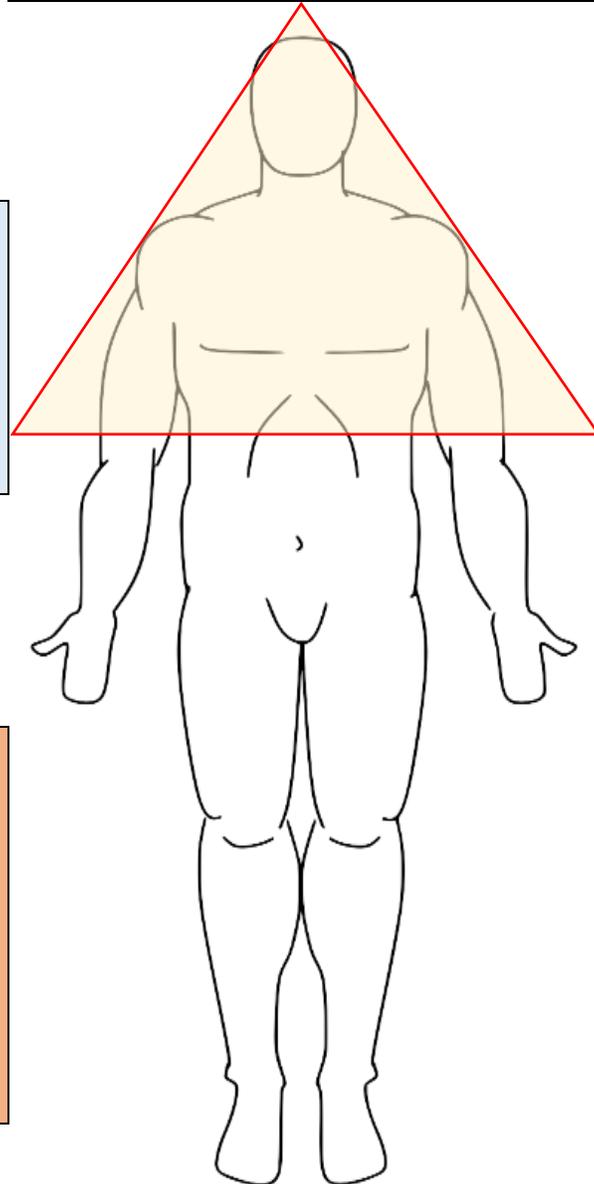


**Additional Information:**

- ① Patients less than 48 hours old will follow VC EMS Neonatal resuscitation Policy 705.16
- ② Chest Compressions:
  - Rate: 112/min
  - Depth: 2-2.4 inches for an adult
    - 1/3 the anterior-posterior chest dimension for a child or infant
  - Full chest recoil after each compression
- ③ LIFEPAK 12/15 must be in paddles mode to capture compression data
- ④ Energy level per manufacturer or provider medical director  
(If 1 or more AED shocks were delivered, ALS defibrillation at next sequential Joules setting)

## Triangle of Life Cardiac Arrest

- Rescuer 3**
- Assemble BVM/ETCO<sub>2</sub>
  - 2 hand thumb up mask seal
  - Coach compression quality



- Rescuer 1**
- Shake and Shout
  - Move to floor
  - Shark hook airway
  - Begin compressions

- Rescuer 2**
- Activate metronome
  - Cut shirt
  - Apply defib pads
  - Deliver Ventilations
  - Switch with rescuer 1 each rhythm check

- Rescuer 4  
Team Lead**
- Rhythm Checks/Defib
  - EtCO<sub>2</sub> Monitoring
  - IV/IO, Presto
  - ALS Medications
  - Advanced Airway PRN
- \*May delegate or perform as appropriate

- Rescuer 5**
- Assist Rescuer 4
  - Gather Information/Meds
  - Communicate with Family
- \*May be delegated variety of tasks based on scope

B. Procedure – Post Arrest Resuscitation (ROSC)

**\*\*\*\*\*PRIORITIES IN POST ARREST RESUSCITATION\*\*\*\*\***

1. Immediate recognition and treatment of re-arrest
2. Preventing re-arrest through effective and continuous management of C – A – B
3. Thorough assessment and identification / treatment of correctable causes
4. 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 EtCO<sub>2</sub> device, if available



**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
  - VF alarm activated
  - Pads / paddles mode
  - SpO<sub>2</sub> waveform
  - EtCO<sub>2</sub> waveform
- Attach adhesive SpO<sub>2</sub> sensor to maintain a consistent and reliable waveform, if available
- Perform a thorough assessment: history, medications, circumstances, physical exam

May delegate interventions as appropriate

Rescuer 4 TEAM LEAD	
ASSESSMENT	
CIRCULATION	AIRWAY-VENTILATION-OXYGENATION
<ul style="list-style-type: none"> <li>Evaluate for palpable femoral pulse</li> <li>Evaluate MANUAL blood pressure                             <ul style="list-style-type: none"> <li>repeat every 5 minutes</li> <li>manual for patient changes or SBP &lt; 90 mmHg</li> </ul> </li> <li>Monitor for falling EtCO<sub>2</sub> as sign of re-arrest</li> <li>Obtain and evaluate 12 lead only after assessment and interventions</li> </ul>	<ul style="list-style-type: none"> <li>Confirm EtCO<sub>2</sub> waveform present with every ventilation; normal 35 – 45 mmHg</li> <li>Confirm presence of bilateral lung sounds</li> <li>Evaluate SpO<sub>2</sub>; goal is 94% – 99%</li> <li>Consider likelihood of respiratory cause; E.g. choking</li> </ul>
SUPPORT	
CIRCULATION	AIRWAY-VENTILATION-OXYGENATION
<ul style="list-style-type: none"> <li>Obtain peripheral IV – preferred 18g, minimum 20g</li> <li>Initiate 1 L fluid bolus, use pressure bag for IO or rapid infusion via peripheral IV</li> <li>Epinephrine 10mcg/mL                             <ul style="list-style-type: none"> <li>1mL (10mcg) every 2 minutes, slow IV/IO push</li> <li>Titrate to SBP of greater than or equal to 90mm/Hg</li> </ul> </li> <li>Circulation treatment goals                             <ul style="list-style-type: none"> <li>Peripheral pulses present</li> <li>Systolic BP &gt; 90 mmHg</li> <li>Ongoing fluid therapy**</li> </ul> </li> <li>Consider etiology to direct treatment where possible                             <ul style="list-style-type: none"> <li>Hypovolemia, sepsis, GI bleeding</li> <li>MI, heart failure, idiopathic electrical anomaly</li> <li>Hyperkalemia</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Place advanced airway as needed to                             <ul style="list-style-type: none"> <li>Improve ventilation or oxygenation</li> <li>Protect against aspiration</li> <li>Effectively ventilate while moving</li> </ul> </li> <li>SpO<sub>2</sub> goal 94%-99% - titrate supplemental oxygen down if SpO<sub>2</sub> is 100%</li> <li>Ventilation treatment goals                             <ul style="list-style-type: none"> <li>EtCO<sub>2</sub> waveform present with each breath</li> <li>Bilateral breath sounds</li> </ul> </li> <li>Consider etiology to direct treatment where possible                             <ul style="list-style-type: none"> <li>Tension pneumothorax</li> <li>Bronchoconstriction</li> <li>Pulmonary embolus</li> <li>Upper airway obstruction</li> <li>Opiate overdose</li> </ul> </li> </ul>

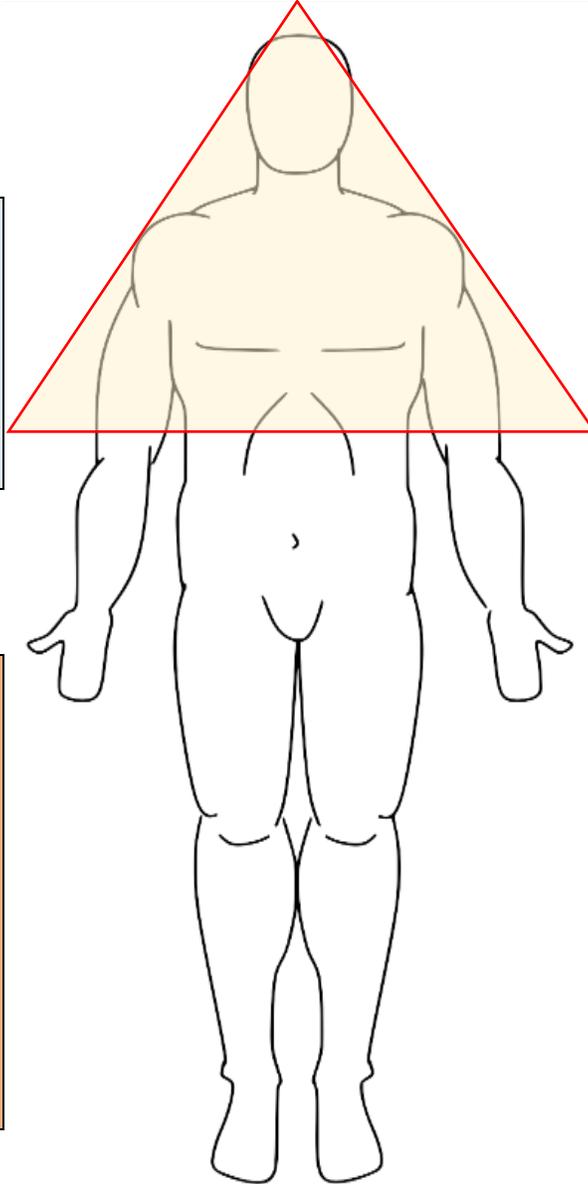
Refer to VCEMS Policy 735 for additional information on preparing push dose solution  
\*\*Fluid therapy indicated unless outward indication of fluid overload or left sided heart failure



Rescuer 5
<ul style="list-style-type: none"> <li>Assist in overseeing triangle of life roles</li> <li>Assist rescuer 4 by preparing medications and equipment</li> <li>Obtain manual blood pressure</li> <li>Obtain 12-lead EKG once directed; assure monitor is returned to pads / paddles mode</li> <li>May be delegated a variety of tasks based on scope</li> </ul>

## Triangle of Life Post Arrest Resuscitation

- Rescuer 3**
- Two hand, thumbs up, mask seal
  - Coaches to ensure adequate Ventilation
  - Coaches to avoid hyperventilation



- Rescuer 1**
- Palpates femoral pulse continuously for 10 minutes
  - Immediately starts compressions if femoral pulse lost or in question
  - PRIORITY position; does not take on additional tasks

- Rescuer 2**
- Provides 1 hand BVM ventilations
  - 1 breath every 6 seconds
  - Avoids hyperventilation
  - PRIORITY position; does not take on additional tasks

- Rescuer 4  
Team Lead**
- Visually monitors EtCO<sub>2</sub>, SpO<sub>2</sub>, & Paddles EKG
  - Obtains/delegated peripheral IV
  - Initiates NS bolus
  - Provides ALS circulatory assessment and support
  - Provides airway assessment and support
  - Determines all ALS care-performs/delegates

- Rescuer 5**
- Directly assists team lead
  - Takes manual blood pressure
  - Assists in obtaining 12-lead
  - Most mobile position
- \*May be delegated variety of tasks based on scope

<b>POST ARREST RESUSCITATION CHECKLIST</b>	
<input checked="" type="checkbox"/>	<b>Initial Actions</b>
<input type="checkbox"/>	Initiate 10 minute continuous femoral pulse check
<input type="checkbox"/>	Continue rescue breathing as needed
<input type="checkbox"/>	Paddles attached and EKG waveform visible
<input type="checkbox"/>	VF alarm set, SpO <sub>2</sub> and EtCO <sub>2</sub> waveforms visible
<b>Circulation</b>	
<input type="checkbox"/>	Obtain peripheral IV access (18 g preferred, 20 g minimum)
<input type="checkbox"/>	Initiate NS fluid bolus
<input type="checkbox"/>	Assess for peripheral pulses
<input type="checkbox"/>	Obtain manual blood pressure
<input type="checkbox"/>	Push dose epinephrine IN ADDITION TO fluids for systolic BP < 90 mmHg
<b>Airway / Ventilation</b>	
<input type="checkbox"/>	Assess for responsiveness and spontaneous ventilations
<input type="checkbox"/>	Assess EtCO <sub>2</sub> , lung sounds, SpO <sub>2</sub>
<input type="checkbox"/>	Maintain BLS airway or place advanced airway as indicated
<input type="checkbox"/>	Place advanced airway if needed to ventilate while moving patient
<input type="checkbox"/>	Oxygenate to SpO <sub>2</sub> 94% to 99%
<input type="checkbox"/>	Oxygen flow rate titrated to prevent SpO <sub>2</sub> 100%
<b>12 Lead EKG</b>	
<input type="checkbox"/>	Obtain 12-lead EKG only after managing C-A-B and prior to movement
<b>Prior to Moving Patient, Confirm</b>	
<input type="checkbox"/>	Patient has sustained ROSC approximately ≥ 10 minutes
<input type="checkbox"/>	C-A-B have been effectively stabilized or appropriate efforts made
<input type="checkbox"/>	Team has planned how to effectively ventilate during move
<input type="checkbox"/>	Team is prepared to recognize re-arrest: <ul style="list-style-type: none"> <li>• STOP MOVING</li> <li>• RESUME CAM ON SCENE</li> </ul>

Post Arrest Resuscitation Transport
<ul style="list-style-type: none"> <li>• Transport is indicated after a patient has sustained ROSC for approximately 10 minutes and effective efforts have been made to stabilize airway, breathing, and circulation</li> <li>• Continuous patient assessment and treatment must remain the priority during transport.</li> <li>• Recognizing hypotension, inadequate ventilation, or re-arrest, will have a large impact on patient outcome.</li> </ul>

Re-Arrest Guidelines (Loss of ROSC)	
<ul style="list-style-type: none"> <li>• Re-arrests require the same high-quality CAM and ALS care as the initial arrest:               <ul style="list-style-type: none"> <li>○ Remain on scene</li> <li>○ Ensure adequate workspace</li> <li>○ Begin CAM Procedure</li> <li>○ Defibrillate VF / VT ASAP</li> </ul> </li> <li>• Provide an additional 20 minutes of high-quality CAM prior to any further movement or initiating transport.</li> <li>• If ROSC is obtained again, reassess, stabilize C – A – B as indicated, then continue with previous transport plan.</li> <li>• 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.</li> </ul>	
Prioritizing Care in Re-Arrest	
Re-Arrest On Scene	Re-Arrest During Transport
<ul style="list-style-type: none"> <li>• If re-arrest occurs during movement to gurney or ambulance, resume CAM on scene outside of ambulance</li> <li>• If re-arrest occurs after loading but prior to leaving scene, unload patient from ambulance, resume CAM, and move to workable space</li> </ul>	<ul style="list-style-type: none"> <li>• Prioritize immediate and continuous chest compressions</li> <li>• Prioritize immediate and q 2 min defib for VF/VT</li> <li>• Reassess patient considering correctable causes and previous interventions</li> <li>• Confirm advanced airway effective and in place if air-Q or ETT was used</li> </ul>
<p>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.</p>	

<b>NO ROSC - NO ROSC AFTER RE-ARREST - FREQUENT RE-ARREST</b>		
<b>Base Consultation</b>		
<ul style="list-style-type: none"> <li>• Base consultation is indicated when considering DOD vs continuing resuscitation.</li> <li>• Assessment findings, observations, and circumstances should be clearly communicated to base.</li> <li>• 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.</li> </ul>		
<b>Patient Factors</b>	<b>Base Consult Takes Place</b>	<b>DOD</b>
<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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 style="list-style-type: none"> <li>• Bystander witnessed collapse</li> <li>• EMS witnessed collapse or loss of pulse</li> </ul>	After 40 minutes of resuscitation efforts without ROSC	Consider after 40 minutes; base consult
<ul style="list-style-type: none"> <li>• Signs of survivability               <ul style="list-style-type: none"> <li>○ EtCO<sub>2</sub> &gt; 30</li> <li>○ Spontaneous breathing attempts</li> <li>○ Spontaneous movement</li> <li>○ Frequent / persistent VF / VT</li> </ul> </li> </ul>	After 40 minutes of resuscitation efforts without ROSC	Consider DOD after 40 minutes; base consult  Physician consult preferred
<ul style="list-style-type: none"> <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

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Tranexamic Acid (TXA) Administration		Policy Number 734	
APPROVED: Administration: Steve L. Carroll, Paramedic		Date: June 1, 2019	
APPROVED: Medical Director: Daniel Shepherd, M.D.		Date: June 1, 2019	
Origination Date: January 10, 2019			
Date Revised:		Effective Date: June 1, 2019	
Date Last Reviewed:			
Review Date: January 31, 2020			

- 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 and 100169.
- 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 neurogenic 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 without ROSC
    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)

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Patients After TASER Use		Policy Number: 725	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: April 29, 2019	
APPROVED: Medical Director	 Daniel Shepherd, M.D.	Date: April 29, 2019	
Origination Date:	August 10, 2006	Effective Date: June 1, 2019	
Date Revised:	March 14, 2019		
Date Last Reviewed:	March 14, 2019		
Next Review Date:	March 31, 2021		

- I. PURPOSE: To provide a framework for the pre-hospital treatment and transport of patients after TASER deployment.
  
- II. AUTHORITY: Health and Safety Code, Sections 1797.214, 1797.220, 1798, and 1798.200, California Code of Regulations, Title 22, Section 100169.
  
- III. POLICY: Law enforcement officers may remove the TASER probes and may choose to transport individuals in custody to an emergency department. On occasion, EMS personnel may be called to evaluate, treat and/or transport patients with or without the TASER probes in place.
  - A. When requested by law enforcement and absent any contraindications as outlined in policy, TASER probes may be removed by EMS personnel.
  - B. If EMS transport is indicated or requested by law enforcement EMS personnel should transport to the closest receiving facility, appropriate specialty care facility, or the hospital requested by law enforcement.
  
- IV. PROCEDURE:
  - A. When safe to do so, patients should be immediately evaluated.
  - B. Any injuries or medical conditions will be treated according to the appropriate treatment protocol.
  - C. If the transporting paramedic determines that the patient is a risk to him/herself and/or the ambulance personnel, law enforcement officer(s) may be requested to accompany the patient.

D. TASER Probe Removal:

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

1. Procedure must be witnessed by the arresting law enforcement officer. Identify the appropriate officer and confirm they are ready to witness the procedure.
2. Verify the wires to the probes have been severed.
3. Use routine biohazard precautions.
4. Place one hand on the patient in the area where the probe is embedded and stabilize the skin surrounding the puncture site between two fingers. Keep your hand several inches away from the probe. With your other hand, in one fluid motion pull the probe straight out from the puncture site.
5. Reinsert TASER probes, point down, into the discharged air cartridge and hand it to the law enforcement officer.
6. Apply direct pressure for bleeding, and apply a sterile dressing to the wound site.

E. Contraindications:

1. If the TASER may be in a dangerous area (e.g., face, neck, hand, bone, groin or spinal column), where it may injure bone, nerves, blood vessels, or an eye, do NOT remove the probe. Transport the patient to the ED in an appropriate position.

F. Documentation:

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



### Updated Policies

Policy Status	Policy #	Title/New Title	Notes
Updated Policies	0705	Treatment Protocols Cover	
	0705_01	Trauma Treatment Guidelines	TXA added
	0705_14	Hypovolemic Shock	TXA added
	0732	Restraints	
	0451	Stroke Triage and Destination	Updated time criteria and ELVO 3+1
	0504	ALS and BLS equipment	TXA added
	0607	Hazardous Material Exposure	
	0627	Fireline Medic	
	0210	Abuse Reporting Guidelines	Minor changes, penal codes removed
	0625	POLST	Current state form added
	0920	Reddinet Policy	Hospital names updated
	1401	Trauma Center Designation	
	1403	Trauma Data	Non-trauma centers added

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: June 1, 2019	
Origination Date:	January 1988		
Date Revised:	See individual algorithms		
Date Last Revised:	See individual algorithms		
Review Date:	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, and 100146.
  - A. DEFINITIONS:
    1. Unless otherwise specified in an individual treatment protocol or policy, the following definitions shall apply:
      - a. Adult: Age 12 or greater (12<sup>th</sup> birthday and older)
      - b. Pediatric: Age less than 12 (up to 12<sup>th</sup> 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 705.14: Hypovolemic Shock
    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

- 00 - General Patient Assessment
- 01 - Trauma Assessment/Treatment Guidelines
- 02 – Allergic Reaction and Anaphylaxis
- 03 - Altered Neurological Function
- 04 - Behavioral Emergencies
- 05 - Bites and Stings
- 06 - Burns
- 07 - Cardiac Arrest – Asystole/Pulseless Electrical Activity (PEA)
- 08 - Cardiac Arrest – VF/VT
- 09 - Chest Pain – Acute Coronary Syndrome
- 10 - Childbirth
- 11 - Crush Injury/Syndrome
- 12 - Heat Emergencies
- 13 - Hypothermia
- 14 – Hypovolemic Shock
- 15 - Nausea/Vomiting
- 16 - Neonatal Resuscitation
- 17 - Nerve Agent / Organophosphate Poisoning
- 18 - Overdose
- 19 - Pain Control
- 20 - Seizures
- 21 - Shortness of Breath – Pulmonary Edema
- 22 - Shortness of Breath – Wheezes/Other
- 23 - Supraventricular Tachycardia
- 24 - Symptomatic Bradycardia
- 25 - Ventricular Tachycardia – Not in Arrest
- 26 – Suspected Stroke
- 27 – Sepsis Alert
- 28 – Smoke Inhalation

# Trauma Assessment/Treatment Guidelines 705.01

- I. Purpose: To establish a consistent approach to the care of the trauma patient
  - A. Rapid trauma survey
    1. Airway
      - a. Maintain inline cervical stabilization
        - 1) Follow spinal precautions per VCEMS Policy 614
      - b. Open airway as needed
        - 2) Utilize a trauma jaw thrust to maintain inline cervical stabilization if indicated
      - c. Suction airway if indicated
    2. Breathing
      - a. Assess rate, depth and quality of respirations
      - b. If respiratory effort inadequate, assist ventilations with BVM
      - c. Insert appropriate airway adjunct if indicated
      - d. Assess lung sounds
      - e. Initiate airway management and oxygen therapy as indicated
        - 1) Maintain SpO<sub>2</sub> ≥ 94%
    3. Circulation
      - a. Assess skin color, temperature, and condition
      - b. Check distal/central pulses and capillary refill time
      - c. Control major bleeding
      - d. Initiate shock management as indicated
    4. Disability
      - a. Determine level of consciousness (Glasgow Coma Scale)
      - b. Assess pupils
    5. Exposure
      - a. If indicated, remove clothing for proper assessment/treatment of injury location. Maintain patient dignity
      - b. Maintain patient body temperature
  - B. Detailed physical examination
    1. Head
      - a. Inspect/palpate skull
      - b. Inspect eyes, ears, nose and throat
    2. Neck
      - a. Palpate cervical spine
      - b. Check position of trachea
      - c. Assess for jugular vein distention (JVD)
    3. Chest
      - a. Visualize, palpate, and auscultate chest wall

4. Abdomen/Pelvis
  - a. Inspect/palpate abdomen
  - b. Assess pelvis, including genitalia/perineum if pertinent
5. Extremities
  - a. Visualize, inspect, and palpate
  - b. Assess Circulation, Sensory, Motor (CSM)
6. Back
  - a. Visualize, inspect, and palpate thoracic and lumbar spines

C. Trauma care guidelines

1. Head injuries
  - a. General treatments
    - 1) Evaluate head and face – maintain high index of suspicion for injury if significant mechanism of injury is present or physical examination is remarkable for findings
    - 2) If in spinal precautions, elevate head of backboard 30° unless contraindicated
    - 3) Do not attempt to intubate head injured patients unless unable to manage with BLS airway measures
    - 4) Do not delay transport if significant airway compromise
  - b. Penetrating injuries
    - 1) DO NOT REMOVE IMPALED OBJECT (unless airway obstruction is present)
    - 2) Stabilize object manually or with bulky dressings
  - c. Facial injuries
    - 1) Assess airway and suction as needed
    - 2) Remove loose teeth or dentures if present
  - d. Eye injuries
    - 1) Remove contact lenses
    - 2) Irrigate eye thoroughly with suspected acid/alkali burns
    - 3) Avoid direct pressure
    - 4) Cover both eyes
    - 5) Stabilize any impaled object manually or with bulky dressing
2. Spinal cord injuries
  - a. General treatments
    - 1) Evaluate spinal column – maintain high index of suspicion for injury if significant mechanism of injury is present or physical examination is remarkable for findings
    - 2) Place patient in supine position if hypotension is present

- b. Penetrating injuries – DO NOT REMOVE IMPALED OBJECT
  - 1) Stabilize object manually or with bulky dressings
  - 2) Control bleeding if present
  - 3) In the presence of penetrating injuries, if no neurologic deficit is present upon physical examination, withhold spinal immobilization
- c. Neck injuries
  - 1) Monitor airway
  - 2) Control bleeding if present
- 3. Thoracic Trauma
  - a. General treatments
    - 1) Evaluate chest – maintain high index of suspicion for internal injury if significant mechanism of injury is present or physical examination is remarkable for findings
    - 2) Keep patients sitting high-fowlers
      - a) If in spinal precautions, elevate head of backboard 30° unless contraindicated
      - b) In the presence of isolated penetrating injuries, if no neurologic deficit is present upon physical examination, consider withholding spinal immobilization
    - 3) Goal of fluid resuscitation is to maintain SBP of  $\geq 80$  mmHg. If SBP  $> 80$  mmHg, then maintain IV/IO at TKO rate
      - a) Maintain palpable peripheral pulses
    - 4) Tranexamic Acid – For patients 15 years of age and older as indicated in VCEMS Policy 734
  - b. Penetrating injuries – DO NOT REMOVE IMPALED OBJECT
    - a) Remove object if CPR is interfered
    - b) Stabilize object manually or with bulky dressings
    - c) Control bleeding if present
  - c. Flail Chest/Rib injuries
    - a) Immobilize with padding and bulky dressings to affected area
    - b) Assist ventilations if respiratory status deteriorates
  - d. Pneumothorax/Hemothorax
    - a) Keep patient sitting high-fowlers
    - b) Assist ventilations if respiratory status deteriorates1.
      - 1) Suspected tension pneumothorax should be managed per VCEMS Policy 715

- e. Open (Sucking) Chest Wound
  - a) Place an occlusive dressing to wound site. Secure on 3 sides only
  - b) Assist ventilations if respiratory status deteriorates
- f. Cardiac Tamponade – If suspected, expedite transport
  - a) Beck's Triad
    - 1) Muffled heart tones
    - 2) JVD
    - 3) Hypotension
- g. Traumatic Aortic Disruption
  - a) Assess for quality of radial and femoral pulses
  - b) If suspected, expedite transport
- 4. Abdominal/Pelvic Trauma
  - a. General Treatments
    - 1) Evaluate abdomen and pelvis – maintain high index of suspicion for internal injury if significant mechanism of injury is present or physical examination is remarkable for findings
    - 2) Goal of fluid resuscitation is to maintain SBP of  $\geq 80$  mmHg. If SBP  $> 80$  mmHg, then maintain IV/IO at TKO rate
      - a) Maintain palpable peripheral pulses
    - 3) Tranexamic Acid – For patients 15 years of age and older as indicated in VCEMS Policy 734
  - b. Blunt injuries
    - 1) Place patient in supine position if hypotension is present
  - c. Penetrating injuries – DO NOT REMOVE IMPALED OBJECT
    - 1) Stabilize object manually or with bulky dressings
    - 2) Control bleeding if present
  - d. Eviscerations
    - 1) DO NOT REPLACE ABDOMINAL CONTENTS
      - a) Cover wound with saline-soaked dressings
    - 2) Control bleeding if present
  - e. Pregnancy
    - 1) Place patient in left-lateral position
    - 2) If in spinal immobilization, place padding under backboard to tilt to the left

- f. Pelvic injuries
  - 1) Consider wrapping a bed sheet tightly around the pelvis and tying it together for use as a binder to help control internal bleeding
    - a) Assessment of pelvis should be only performed **ONCE** to limit additional injury
  - 2) Control bleeding if present
  - 3) If possible avoid log rolling patient.
- 4. Extremity Trauma
  - a. General Treatments
    - 1) Evaluate CSM distal to injury
      - a) If decrease or absence in CSM is present:
        - (1) Manually reposition extremity into anatomical position
        - (2) Re-evaluate CSM
      - b) If no change in CSM after repositioning, splint in anatomical position and expedite transport
      - c) Cover open wounds with sterile dressings
      - d) Place ice pack on injury area (if closed wound)
      - e) Splint/elevate extremity with appropriate equipment
      - f) Uncontrolled hemorrhage: Tranexamic Acid – For patients 15 years of age and older as indicated in VCEMS Policy 734
    - b. Dislocations
      - 1) Splint in position found with appropriate equipment
    - c. Penetrating injuries – DO NOT REMOVE IMPALED OBJECTS
      - 1) Stabilize object manually or with bulky dressings
      - 2) Control bleeding if present
    - d. Femur fractures
      - 1) Utilize traction splint only if isolated mid-shaft femur fracture is suspected
      - 2) Assess CSM before and after traction splint application
    - e. Amputations
      - 1) Clean the amputated extremity with NS
      - 2) Wrap in moist sterile gauze
      - 3) Place in plastic bag
      - 4) Place bag with amputated extremity into a separate bag containing ice packs
      - 5) Prevent direct tissue contact with the ice packs

<b>Hypovolemic Shock</b>	
<b>ADULT</b>	<b>PEDIATRIC</b>
<b>BLS Procedures</b>	
Place patient in supine position Administer oxygen as indicated	Place patient in supine position Administer oxygen as indicated
<b>ALS Standing Orders</b>	
<p>IV/IO access</p> <p><b>Normal Saline</b></p> <ul style="list-style-type: none"> <li>• IV/IO bolus – 1 Liter</li> <li>• Caution with cardiac and/or renal history</li> <li>• Evaluate lung sounds. If signs of CHF, decrease IV/IO to TKO</li> <li>• If vital signs return to within normal limits, decrease IV/IO to TKO</li> </ul> <p><u>Traumatic Injury</u></p> <ul style="list-style-type: none"> <li>• Do not delay transport for IV/IO attempts</li> <li>• Tranexamic Acid – For patients 15 years of age and older as indicated in VCEMS Policy 734                             <ul style="list-style-type: none"> <li>○ IV/IOPB - 1gm TXA in 100mL NS over 10 minutes</li> </ul> </li> <li>• Refer to Policy 705.01- Trauma Treatment Guidelines, for permissive hypotension                             <ul style="list-style-type: none"> <li>○ Goal is to maintain palpable peripheral pulses (SBP of <math>\leq</math> 80 mmHg)</li> </ul> </li> <li>• Attempt second IV/IO during transport to ED</li> </ul>	<p>IV/IO access</p> <p><b>Normal Saline</b></p> <ul style="list-style-type: none"> <li>• IV/IO bolus – 20 mL/kg                             <ul style="list-style-type: none"> <li>○ Caution with cardiac and/or renal history</li> <li>○ Evaluate lung sounds. If signs of CHF, decrease IV/IO to TKO</li> <li>○ If vital signs return to within normal limits, decrease IV/IO to TKO</li> </ul> </li> </ul> <p><u>Traumatic Injury</u></p> <ul style="list-style-type: none"> <li>• Do not delay transport for IV/IO attempts</li> <li>• Attempt second IV/IO while during transport to ED</li> </ul>
<b>Communication Failure Protocol</b>	
<p>If shock persists:</p> <ul style="list-style-type: none"> <li>• <b>Repeat Normal Saline</b> <ul style="list-style-type: none"> <li>○ IV/IO bolus – 1 Liter</li> </ul> </li> </ul>	<p>If shock persists:</p> <ul style="list-style-type: none"> <li>• <b>Repeat Normal Saline</b> <ul style="list-style-type: none"> <li>○ IV/IO bolus – 20 mL/kg</li> </ul> </li> </ul>
<b>Base Hospital Orders only</b>	
Consult with ED Physician for further treatment measures	Consult with ED Physician for further treatment measures
<p>Additional Information</p> <ul style="list-style-type: none"> <li>• Prepare and administer TXA concentration consistent with standards outlined in VCEMS Policy 734 – Tranexamic Acid (TXA) Administration</li> </ul>	

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Use of Restraints		Policy Number 732	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: June 1, 2019	
APPROVED: Medical Director:	 Daniel Shepherd, MD	Date: June 1, 2019	
Origination Date:	April 1, 2011	Effective Date: June 1, 2019	
Date Revised:	March 14, 2019		
Date Last Reviewed:	March 14, 2019		
Review Date:	March 31, 2021		

- I. PURPOSE: To provide guidelines for the use of physical and chemical restraints during the course of emergency medical treatment or during an inter-facility transport (IFT) for patients who are violent or potentially violent to themselves or others.
- II. AUTHORITY: California Health and Safety Code, Sections: 1797.2, 1798; California Code of Regulations, Title 22, Sections: 100075, 100147, 100160; California Administrative Code, Title 13, Section 1103.2.
- III. DEFINITIONS:
  - A. Verbal De-escalation : Any verbal communication from a pre-hospital provider to a patient utilized for the sole purpose of limiting or inhibiting the patient's behavior.
  - B. Physical Restraint: Any method in which a technique or piece of equipment is applied to the patient's body in a manner that reduces the subject's ability to move his arms, legs, head, or body.
  - C. Chemical Restraint: Any pharmaceutical administered by healthcare providers that is used specifically for the purpose of limiting or controlling a person's behavior or movement.
- IV. POLICY:
  - A. Physical Restraint
    1. Prior to use of physical or chemical restraints, every attempt to calm a patient should be made using verbal de-escalation and/or nonphysical means.
    2. Perform a physical assessment and obtain a medical history as soon as safe and appropriate. Treat any underlying conditions per VCEMS 705 Treatment guidelines.

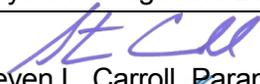
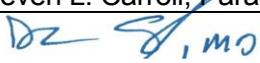
3. If necessary, apply soft physical restraints while performing assessment and obtaining history.
4. Padded soft restraints shall be the only form of restraints utilized by EMS providers.
5. Restraints shall be applied in a manner that does not compromise vascular, neurological, or respiratory status.
6. Extremities in which restraints are applied shall be continuously monitored for signs of decreased neurologic and vascular function
7. Patients shall not be transported in a prone position. The patient's position shall be in a manner that does not compromise vascular or respiratory status at any point. Additionally, the patient position shall not prohibit the provider from performing any and all assessment and treatment tasks.
8. Restraints shall be attached to the frame of the gurney.
9. Handcuffs applied by law enforcement require that an officer accompany the patient to ensure provider and patient safety and to facilitate removal of the restraint device if a change in the patient's condition requires it.
  - a. If the patient is restrained with handcuffs and placed on a gurney, both arms shall be restrained to the frame of the gurney in a manner that in no way limits the ability to care for the patient. The patient should not be placed on gurney with hands or arms restrained behind patient's back.
  - b. In the event that the law enforcement agency is not able to accompany the patient in the ambulance, a law enforcement unit must follow the ambulance in tandem along a predetermined route to the receiving facility.

B. Chemical Restraint

1. If while in restraints, the patient demonstrates behavior that may result in harm to the patient or providers, chemical restraint should be considered.
  - a. Refer to VCEMS Policy 705: Behavioral Emergencies for guidance and administration of appropriate chemical restraint.
  - b. It is important again to investigate and treat possible underlying causes of erratic behavior (e.g. hypoglycemia, trauma, meningitis).

C. Required Documentation

1. Instances in which physical or chemical restraints are applied shall be documented according to VCEMS Policy 1000. Required documentation shall include:
  - a. Type of restraint applied (e.g. soft padded restraint, midazolam, handcuffs by law enforcement)
  - b. Reason restraints were utilized.
  - c. Location on patient restraints were utilized
  - d. Personnel and agency applying restraints.
  - e. Time restraints were applied
  - f. Every 10 minute neurologic and vascular checks
2. Base Hospital shall be notified in all circumstances in which physical and chemical restraints are utilized.

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Stroke System Triage and Destination		Policy Number 451	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: June 1, 2019	
APPROVED: Medical Director:	 Daniel Shepherd, M.D.	Date: June 1, 2019	
Origination Date:	October 11, 2012		
Date Revised:	March 28, 2019	Effective Date: June 1, 2019	
Date Last Reviewed:	March 28, 2019		
Review Date:	March 31, 2022		

- I. PURPOSE: To outline the process of pre-hospital triage and transport of suspected acute stroke patients to facilities designated as an Acute Stroke Center (ASC).
- II. AUTHORITY: California Health and Safety Code Sections 1797.220 and 1798, California Code of Regulations, Title 22, Division 9, Sections 100147, and 100169
- III. DEFINITIONS:
  - Acute Stroke Center (ASC):** Hospital designated as an Acute Stroke Center, as defined in VCEMS Policy 450.
  - Comprehensive Stroke Center: (CSC)** Hospital certified by either The Joint Commission, Det Norske Veritas, or the Healthcare Facilities Accreditation Program as a Comprehensive Stroke Center.
  - ELVO Alert:** A pre-arrival notification by pre-hospital personnel to the base hospital that a patient is suffering a possible Emergent Large Vessel Occlusion (ELVO) ischemic stroke.
  - Emergent Large Vessel Occlusion (ELVO):** An acute ischemic stroke caused by a large vessel occlusion.
  - Stroke Alert:** A pre-arrival notification by pre-hospital personnel that a patient is suffering a possible acute stroke.
  - Thrombectomy Capable Acute Stroke Center: (TCASC)** Acute Stroke Center (ASC) that has the capability to perform neuroendovascular procedures for acute stroke including thrombectomy and intra-arterial thrombolysis.
  - Time Last Known Well (TLKW):** The date/time at which the patient was last known to be without the current signs and symptoms or at his or her baseline state of health.
  - Ventura ELVO Score (VES):** A tool designed for paramedics to screen for an ELVO in the prehospital setting.

IV. POLICY:

A. Stroke System Triage:

Patients meeting criteria in each of the following sections (1, 2, 3,) shall be triaged into the VC EMS stroke system.

1. Patient's TLKW is within 24 hours.
2. Blood Glucose is greater than sixty (60) OR patient continues to exhibit signs and symptoms of an acute stroke after pre-hospital treatment of abnormal blood glucose levels.
3. Identification of ANY abnormal finding of the Cincinnati Stroke Scale (CSS).

FACIAL DROOP

Normal: Both sides of face move equally

Abnormal: One side of face does not move normally

ARM DRIFT

Normal: Both arms move equally or not at all

Abnormal: One arm does not move, or one arm drifts down compared with the other side

SPEECH

Normal: Patient uses correct words with no slurring

Abnormal: Slurred or inappropriate words or mute

B. Perform the Ventura ELVO Score (VES) below:

Forced Eye Deviation: (1 point)

Force full deviation of BOTH eyes to one side or the other

Eyes will not pass midline

Aphasia: Patient is awake, but: (1 point). ANY of the following present is a positive (1 Point) for Aphasia)

Repetition: Unable to repeat a sentence ("Near the chair in the dining room.")

Naming: Unable to name an object (show a watch and a pen, ask patient to name the objects)

Mute: Ask the patient 2 Questions (What is your name? How old are you?)

Talking gibberish and/or not following commands

Neglect: (1 point)

Touch the Patient's right arm and ask if they can feel it

Touch the Patient's left arm and ask if they feel it

Now touch both of the Patient's arms simultaneously and ask the patient which side you touched

(If patient can feel both sides individually but only feels one side on simultaneous stimulation, this is neglect)

If Aphasic: Neglect can be evaluated by noticing that patient is not paying attention to you if you stand on one side, but pays attention to you if you stand on the other side.

Obtundation: (1 point)

Not staying awake in between conversation

- C. Score 1 point for each positive component of the VES (Total Score Possible = 4). If VES has a score of 1 or more, and the patient is positive for **all 3** findings of the CSS, and the TLKW is within 6 hrs, the patient will be an **ELVO Alert**. If TLKW is between 6- 24hrs, or if CSS has only 1 or 2 positive findings, the patient will be a **stroke alert**.
- D. For a **Stroke Alert**, Base Hospital Contact (BHC) will be established and a Stroke Alert will be activated.
- E. For an **ELVO Alert**, the nearest TCASC is the base hospital for that patient. (East of Lewis Rd is LRH and west of Lewis Rd. is SJR). Prehospital personnel will make base contact with the appropriate TCASC and an ELVO alert will be activated. The appropriate specialist on-call will be notified by the MICN.
1. The base hospital will determine the nearest ASC or TCASC using the following criteria:
    - a. Patients condition
    - b. TCASC or ASC availability on ReddiNet
    - c. Transport time
    - d. Patient request
  2. The Base Hospital will notify the appropriate ASC of the *Stroke Alert* or TCASC of an *ELVO Alert*.
- F. Destination Decision: patients meeting stroke system criteria shall be transported to the nearest ASC, except in the following cases:
1. Stroke patients in cardiac arrest shall be transported to the nearest receiving hospital. Patients who have greater than thirty seconds of return of spontaneous circulation (ROSC) shall be transported to the nearest STEMI Receiving Center (SRC).
  2. The nearest ASC is incapable of accepting a stroke alert patient due to ED, CT or Internal Disaster diversion, transport to the next closest ASC.
  3. The patient requests transport to an alternate facility, not extending transport by more than twenty (20) minutes, and approved by the Base Hospital.
  4. Patient meeting ELVO Alert criteria will be transported to the nearest TCASC if **total** transport time does not exceed 45 minutes.
- G. Upon Arrival: You may be asked to take your patient directly to the CT scanner.
- a. Give report to the nurse, transfer the patient from your gurney onto the CT scanner platform, and then return to service.
  - b. If there is any delay, such as CT scanner not readily available, or a nurse not immediately available, you will not be expected to wait. You will take the patient to a monitored bed in the ED and give report as usual.
- H. Documentation
1. Care and findings related to an acute stroke patient shall be documented in the Ventura County electronic patient care reporting (VCePCR) system in accordance with VCEMS policy 1000.

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: June 1, 2019	
APPROVED: Medical Director	 Daniel Shepherd, MD	Date: June 1, 2019	
Origination Date:	May 24, 1987	Effective Date: June 1, 2019	
Date Revised:	January 10, 2019		
Last Reviewed:	January 10, 2019		
Review Date:	January 30, 2022		

- 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
<b>A. ALL BLS AND ALS RESPONSE AND/OR TRANSPORT UNITS</b>				
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 <i>(optional for non-911 BLS units)</i>	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  <ul style="list-style-type: none"> <li>• 4"x4" sterile compresses or equivalent</li> <li>• 2",3",4" or 6" roller bandages</li> <li>• 10"x 30" or larger dressing</li> </ul>	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, 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
<b>OPTIONAL EQUIPMENT</b>				
Occlusive dressing or chest seal				
Hemostatic gauze per EMSA guidelines				
<b>B. TRANSPORT UNIT REQUIREMENTS</b>				
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
<b>C. ALS UNIT REQUIREMENTS</b>				
Cellular telephone	1	1	1	1
Alternate ALS airway device	2	1	1	1
Arm Boards				
9"	3	0	1	0
18"	3	0	1	0
Cardiac monitoring equipment	1	1	1	1
CO <sub>2</sub> monitor	1	1	1	1
Colorimetric CO <sub>2</sub> 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	2	1	1	$\frac{1}{1}$
• Normal saline solution, 500 ml	2	1	1	1
• Normal saline solution, 1000 ml	6	2	4	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	1 set	1 set	1 set	1 set
Curved blade #2, 3, 4	1 each	1 each	1 each	1 each
Straight blade #1, 2, 3	1 each	1 each	1 each	1 each
Magill forceps				
Adult	1	1	1	1
Pediatric	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 <sub>2</sub> Monitor (If not attached to cardiac monitor)	1	1	1	1
<b>OPTIONAL ALS EQUIPMENT (No minimums apply)</b>				
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
<b>D. MEDICATION, MINIMUM AMOUNT</b>					
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					
• 1 mL ampule / vial, OR	2	5	5	5	5
• Adult auto-injector (0.3 mg), AND	2	4	2	2	2
• 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
Ondansetron (Zofran)					
• 4 mg IV single use vial		4	4	4	4
• 4 mg oral		4	4	4	4
Sodium Bicarbonate, 1 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: Hazardous Material Incident		Policy Number: 607	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: June 1, 2019	
APPROVED: Medical Director	 Daniel Shepherd, MD	Date: June 1, 2019	
Origination Date:	February 12, 1987		
Date Revised:	March 14, 2019	Effective Date: June 1, 2019	
Date Last Reviewed:	March 14, 2019		
Review Date:	March 31, 2021		

- I. PURPOSE: This policy establishes guidelines for the response of pre-hospital care providers to incidents involving hazardous materials.
- II. AUTHORITY: Health and Safety Code, Division 2.5, Sections 1797.220 & 1798. California Code of Regulations, Title 22, Division 9, Section 100175.
- III. POLICY: The Ventura County Regional Hazmat Team (VCRHT), under direction of the Incident Commander, assumes responsibility for “functional” control within a hazardous materials incident. Functional control includes all operations within the “hot zone” and control of any contamination.  
The responding Emergency Medical Services personnel assume responsibility for patient care and transportation after release and/or decontamination by VCRHT. The EMS personnel and/or treatment team shall coordinate treatment/transport efforts with VCRHT so as not to jeopardize scene integrity, causing unnecessary spread of contamination to ambulance, equipment, EMS personnel and hospital personnel or citizens.
- IV. PROCEDURE:
  - A. INITIAL NOTIFICATION
    1. The responding EMS unit shall be notified by the Fire Department as soon as possible on all hazardous material incidents in order to facilitate their entry into the scene. Necessary information should include:
      - a. Radio channel/frequency for the incident
      - b. Estimated number of victims or potential victims

- c. Approach to the incident
  - d. Location of the staging area
  - e. Identification (radio designation) of the Incident Commander
  - f. Request for specialized equipment needed
2. While enroute, the EMS unit shall make radio contact with the Incident Commander or FCC and verify location, approach and staging information prior to their arrival on-scene.
  3. Upon arrival at the scene, the ambulance unit shall notify the base hospital or receiving hospital affected as to the number of patients, description of hazard, and any other pertinent information relative to hospital needs. (Note: the IC or VCRHT should provide this information upon request).
- B. ARRIVAL ON-SCENE
1. If the scene has not been secured and a staging area has not been established, the ambulance unit should make radio contact with the Incident Commander or FCC for entrance and staging instructions.
  2. In the absence of an Incident Commander and/or a staging area, EMS personnel should stay upwind and avoid entering the contaminated area.
  3. If the scene has been secured, the first-in ambulance unit should enter the staging area and report to the Incident Commander for direction.
- C. VICTIM DECONTAMINATION
1. Patients contaminated by a hazardous substance or radiation shall be appropriately decontaminated by VCRHT or fire resources, despite the urgency of their medical condition, prior to being moved to the triage area for transportation.
  2. VCRHT shall determine the disposition of all contaminated clothing and personal articles.
  3. The transfer of the patient from the contaminated zone to the safe zone must be accomplished by trained personnel in an appropriate level of protective clothing and carefully coordinated so as not to permit the spread of contamination.

4. Contaminated clothing and personal articles shall be properly prepared for disposal by the VCRHT.
5. Every effort shall be made to preserve, protect and return personal articles.

D. TRANSPORTATION

1. Any equipment, including transportation units, found to have been exposed and contaminated by a hazardous substance shall be taken out of service pending decontamination and a second ambulance unit responded to transport patients to the hospital when available.
2. At no time shall ambulance personnel transport contaminated patients. If during transport a patient off-gasses a strong odor or vomits what is believed to be toxic emesis, personnel/victim shall vacate ambulance and request assistance from fire.
3. Prior to transportation of patients to the hospital, the ambulance unit shall notify the hospital of the following:
  - a. number of patients
  - b. confirmation that patients being transported have been field decontaminated
  - b. extent each patient was contaminated
  - c. materials causing contamination (if known)
  - d. extent of injuries
  - e. patient assessment
  - f. ETA
  - g. any other pertinent information

E. ARRIVAL AT EMERGENCY ROOM

1. Upon arrival at the hospital, emergency room personnel shall meet the patient at the ambulance in order to determine if further decontamination is needed prior to delivery of patient(s) into the emergency room. (Any patient release by fire and transported by ambulance will be decontaminated to the fullest extent possible)
2. All hospitals should develop a plan for receiving patients who have been decontaminated and those patients who may need additional decontamination and a contingency plan for mass decontamination.

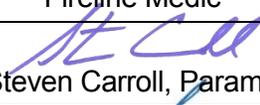
3. If additional decontamination resources are needed, the VCRHT decontamination equipment and personnel may be requested through dispatch.

F. EMERGENCY PERSONNEL DECONTAMINATION

1. All treatment team members coming in contact with contaminated patients or contaminated materials shall take appropriate measures to insure proper decontamination and elimination of cross contamination. Secondary decontamination is recommended which includes taking a shower and changing clothes whenever necessary.
2. Clothing, bedding, instruments, body fluids, etc. may be considered extremely hazardous and must be handled with care, contained and disposed of properly.
3. Follow-up monitoring of all personnel shall be conducted as deemed necessary by the Medical Director.

G. Biennial refresher training and exercise

1. All receiving hospitals and EMS transport personnel should receive refresher training on this policy and decontamination procedures every other year. A practical exercise in conjunction with fire personnel is highly recommended at the completion of the training.

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: June 1, 2019	
APPROVED: Medical Director	 Daniel Shepherd, MD	Date: June 1, 2019	
Origination Date:	October 5, 2011	Effective Date: June 1, 2019	
Date Revised:	March 14, 2019		
Date Last Reviewed:	March 14, 2019		
Review Date:	March 31, 2021		

- I. **PURPOSE:** To establish procedures for a fire line 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)
Combat Gauze	
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)	Tourniquet (1)
Kerlix, Kling, 4.5, Sterile (2)	Triage Tags (6)
Digital Thermometer (1)	Triangular Dressing with Pin (2)

**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)	Needle Thoracostomy Kit (1)
End Tidal CO2 Detector	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:**

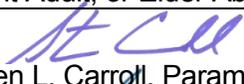
AMA Paper Forms (3)	PCR Paper Forms (6)
FEMP Pack Inventory Sheet (1)	Sharps Container – Small(1)
Narcotic Storage (per agency policy)	

**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 1mg/mL (2)	5% Dextrose in Water, 50 ml (1)

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Child, Dependent Adult, or Elder Abuse Reporting		Policy Number 210	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: June 1, 2019	
APPROVED: Medical Director:	 Daniel Shepherd M.D.	Date: June 1, 2019	
Origination Date:	June 14, 1984		
Date Revised:	March 14, 2019	Effective Date: June 1, 2019	
Last Review:	March 14, 2019		
Review Date:	March 31, 2022		

- I. PURPOSE: To define child, dependent adult and elder abuse and outline the required reporting procedure for prehospital care personnel in all cases of suspected child, dependent adult and elder abuse.
- II. AUTHORITY: Welfare and Institutions code Section 15630-15632
- III. POLICY: EMS Provider will report all suspected cases of abuse.
- IV. DEFINITIONS:
  - A. "Abuse of an elder or a dependent adult" means physical abuse, neglect, intimidation, cruel punishment, fiduciary abuse, abandonment, isolation, or treatment with resulting physical harm or pain or mental suffering, or the deprivation by a care custodian of goods and services which are necessary to avoid physical harm or mental suffering.
    1. "Isolation" means any of the following:
      - a. Acts intentionally committed for the purpose of preventing, and that do serve to prevent, an elder or dependent adult from receiving his or her mail or telephone calls.  
Telling a caller or prospective visitor that an elder or dependent adult is not present, or does not wish to talk with the caller, or does not wish to meet with the visitor, where the statement is false, is contrary to the express wishes of the elder or the dependent adult, whether he or she is competent or not, and is made for the purpose of preventing the elder or dependent adult from having contact with family, friends, or concerned persons. False imprisonment, as defined in Section 236 of the Penal Code. Physical restraint of an elder or dependent adult for the purpose of preventing the elder or dependent adult from meeting with visitors.
      - b. The acts set forth in paragraph a. shall be subject to a rebuttal presumption that they do not constitute isolation if they are performed pursuant to the instructions of a physician licensed to

practice medicine in the State of California, who is caring for the elder or dependent adult at the time the instructions are given, and who gives the instructions as part of his or her medical care.

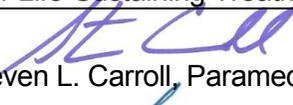
- c. The acts set forth in paragraph a. shall not constitute isolation if they are performed in response to a reasonably perceived threat of danger to property or physical safety.
2. "Child" means any person under the age of 18 years.
3. "Child abuse" means physical injury which is inflicted by other than accidental means on a child by another person....sexual assault of a child....neglect of a child or abuse in out-of-home care.
4. "Dependent Adult" means any person residing in this state between the ages of 18 and 64, who has physical or mental limitations which restrict his or her ability to carry out normal activities or to protect his or her rights including, but not limited to, persons who have physical or developmental disabilities or whose physical or mental abilities have diminished because of age.
5. "Dependent adult" includes any person between the ages of 18 and 64 years who is admitted as an inpatient to a 24-hour health facility, as defined in Sections 1250, 1250.2, and 1250.3 of the Health and Safety Code.
6. "Elder" means any person residing in this state, 65 years of age or older"
7. "Health practitioner" means a physician and surgeon, psychiatrist, psychologist, dentist, resident, intern, podiatrist, chiropractor, licensed nurse, dental hygienist, licensed clinical social worker or associate clinical social worker, marriage, family, and child counselor, or any other person who is currently licensed under Division 2 (commencing with Section 500) of the Business and Professions Code, any emergency medical technician I or II, paramedic, or person certified pursuant to Division 2.5 (commencing with Section 1797) of the Health and Safety Code, a psychological assistant registered pursuant to Section 2913 of the Business and Professions Code, a marriage, family, and child counselor trainee, as defined in subdivision © of Section 4980.03 of the Business and Professions Code, state or county public health or social service employee who treats an elder or a dependent adult for any condition, or a coroner.

8. "Physical abuse means all of the following:
  - a. Battery or assault
  - b. Assault with a deadly weapon or force likely to produce great bodily injury
  - c. Unreasonable physical constraint or prolonged or continual deprivation of food or water.
  - d. Sexual Assault, which means any of the following:
    - 1) Sexual battery, rape, incest, sodomy, oral copulation, or penetration of a genital or anal opening by a foreign object.
  - e. Use of a physical or chemical restraint or psychotropic medication under any of the following conditions:
    - 1) For punishment
    - 2) For a period significantly beyond that for which the restraint or medication was authorized pursuant to the instructions of a physician licensed in the State of California, who is providing medical care to the elder or dependent adult at the time the instructions are given.
9. "Reasonable suspicion" means that it is objectively reasonable for a person to entertain such a suspicion based upon facts that could cause a reasonable person in a like position, drawing when appropriate, on his or her training and experience, to suspect child abuse.

V. PROCEDURE:

1. Report by telephone to a county child or adult protective agency (Ventura County Human Services Agency at (805-654-3200) or to a local law enforcement agency immediately or as soon as possible. The telephone report shall include the following:
  - a. Name, address, telephone number, and occupation of the person making the report
  - b. Name and address of the victim
  - c. Date, time and place of the incident
  - d. Other details, including the reporter's observations and beliefs concerning the incident
  - e. Any statement relating to the incident made by the victim
  - f. The name of any individuals believed to have knowledge of the incident
  - g. The name of the individuals believed to be responsible for the incident and their connection to the victim.

- h. Present location of the child
  - i. Nature and extent of the injury
  - j. Information that led such person to suspect child abuse
2. Report in writing and fax to (805-654-5597) within two working days of receiving the information concerning the incident.
  3. When two (2) or more persons who are required to report are present and jointly have knowledge of a suspected instance of child, dependent adult or elder abuse, and when there is agreement among them, the telephone report may be made by a member of the team selected by mutual agreement and a single report may be made and signed by such selected member of the reporting team. Any member who has knowledge that the member designated to report has failed to do so, shall thereafter make such report.
  4. The reporting duties are individual, and no supervisor or administrator may impede or inhibit such reporting duties and no person making such report shall be subject to any sanction for making such report. However, internal procedures to facilitate reporting and apprise supervisors and administrators of reports may be established provided that they are not inconsistent with the provisions of this article.

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: June 1, 2019	
APPROVED: Medical Director:	 Daniel Shepherd, MD	Date: June 1, 2019	
Origination Date:	January 7, 2009	Effective Date: June 1, 2019	
Date Revised:	January 10, 2019		
Date Last Reviewed:	January 10, 2019		
Review Date:	January 31, 2021		

- 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.



EMSA #111 B  
(Effective 4/1/2017)\*

# Physician Orders for Life-Sustaining Treatment (POLST)

**First follow these orders, then contact Physician/NP/PA.** 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. Additional Orders: \_\_\_\_\_
- Trial period of artificial nutrition, including feeding tubes. \_\_\_\_\_
- No artificial means of nutrition, including feeding tubes. \_\_\_\_\_

**D** **INFORMATION AND SIGNATURES:**

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

Advance Directive dated \_\_\_\_\_, available and reviewed → Health Care Agent if named in Advance Directive:  
Name: \_\_\_\_\_  
Phone: \_\_\_\_\_

Advance Directive not available

No Advance Directive

**Signature of Physician / Nurse Practitioner / Physician Assistant (Physician/NP/PA)**  
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/NP/PA Name:	Physician/NP/PA Phone #:	Physician/PA License #, NP Cert. #:
Physician/NP/PA 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 individual 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:

Your POLST may be added to a secure electronic registry to be accessible by health providers, as permitted by HIPAA.

**SEND FORM WITH PATIENT WHENEVER TRANSFERRED OR DISCHARGED**

\*Form versions with effective dates of 1/1/2009, 4/1/2011, 10/1/2014 or 01/01/2016 are also valid

# HIPAA PERMITS DISCLOSURE OF POLST TO OTHER HEALTH CARE PROVIDERS AS NECESSARY

## Patient Information

Name (last, first, middle):	Date of Birth:	Gender: <b>M</b> <b>F</b>
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## NP/PA's Supervising Physician

Name:	<b>Preparer Name</b> (if other than signing Physician/NP/PA) Name/Title:	Phone #:
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## Additional Contact

 None

Name:	Relationship to Patient:	Phone #:
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## Directions for Health Care 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, or a nurse practitioner (NP) or a physician assistant (PA) acting under the supervision of the 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 health care 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/NP/PA 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.
- To be valid a POLST form must be signed by (1) a physician, or by a nurse practitioner or a physician assistant acting under the supervision of a physician and within the scope of practice authorized by law and (2) the patient or decisionmaker. Verbal orders are acceptable with follow-up signature by physician/NP/PA 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:

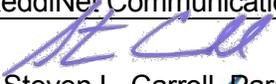
- The patient is transferred from one care setting or care level to another, or
- There is a substantial change in the patient's health status, or
- The patient's treatment preferences change.

### 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/NP/PA, 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](http://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: ReddiNet Communications Policy		Policy Number 920	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: June 1, 2019	
APPROVED: Medical Director:	 Daniel Shepherd, MD	Date: June 1, 2019	
Origination Date:	April 26, 2007		
Date Revised:	March 14, 2019	Effective Date: June 1, 2019	
Date Last Reviewed:	March 14, 2019		
Review Date:	March 31, 2022		

- I. PURPOSE: The Rapid Emergency Digital Data Network (REDDINET) is the computerized system that links hospitals, the EMS Agency, and Public Health for a variety of purposes; including but not limited to **daily** (Q24 hr) reports of diversion status, multiple casualty incidents (MCI), assessment communication, disease surveillance, and current HAVBED status. This policy defines the expectation for the use and maintenance of ReddiNet by all facilities.
- II. AUTHORITY: Health and Safety Code, Division 2.5, Chapter 1, Section 1797.204 and Chapter 6, Section 1798.100.
- III. POLICY:
  - A. The ReddiNet System is to be maintained by each individual facility. This includes, but is not limited to, maintenance and upgrade of all associated hardware, software, and licensing.
  - B. It is the responsibility of each facility to ensure that any staff expected to use the ReddiNet System be properly trained and refreshed on a routine basis (at least twice per year). At least one staff member who is knowledgeable on the use of the ReddiNet System is to be on duty at all times.
  - C. The ReddiNet System is to remain online at all times unless there is a hardware or software problem that disables the system, in which case every effort shall be made to correct the problem as quickly as possible.
  - D. The sound volume on the ReddiNet System is to be maintained at an adequate level to alert staff within a facility at all times, and is never to be placed on mute.
  - E. The ReddiNet System shall be placed in an easily accessible location within each facility.
  - F. The use of the ReddiNet computer is limited to operation of the ReddiNet System and access to EMS educational materials only. Accessing the Internet or other applications on the system is prohibited.
  - G. VCEMS may send an Assessment Poll as needed. Each facility is to acknowledge and respond to this poll as directed by the system.
  - H. The ReddiNet System is not to be used to disseminate non-system information such as conference flyers, educational opportunities, and other like materials.

#### IV. PROCEDURE:

- A. Emergency Department and other appropriate hospital staff will use ReddiNet for the following information:
1. Status – Hospitals will utilize the Reddinet System to update all diversion status pursuant to VCEMS Policy 402. Hospitals should note that the ReddiNet System also displays diversion status for other facilities within the region.
  2. Multi Casualty Incidents (MCI) – During an MCI, the designated Base Hospital will coordinate response activities with other hospitals using ReddiNet unless relieved by EMS Agency personnel. The Base Hospitals will initiate an MCI using the ReddiNet MCI function. All patients received by hospitals during an MCI are to be recorded in ReddiNet, within the MCI function. The System will send an alert tone when a facility is being included in an MCI response.
  3. Assessment – This function within the ReddiNet System allows a facility or the EMS Agency to assess the status of other facilities and other resources (such as staffing, equipment, etc). Assessments are polls that ask specific questions and require a response. All facilities are to respond as quickly as possible to active polls. Assessments contain one or more questions whose answers are formatted (I.e., Yes/No, numeric, multiple choice, text, etc) The System will send an alert tone when Assessments are received.
  4. Public Health Surveillance – The Public Health Department may initiate disease surveillance programs utilizing Reddi-Net. These will be in the form of assessment polls that ask for specific information on a routine basis. Each facility is to ensure that these assessments are answered in a timely manner. This will likely require involvement of Infectious/Communicable Disease staff at each facility. This does not replace the obligation of health care providers to report certain diseases on a Confidential Morbidity Report (CMR) pursuant to Title 17, California Code of Regulations, §2500 (rev. 1996)
  5. Messages – All facilities are expected to utilize the ReddiNet messaging function to communicate appropriate information within their facility, with other hospitals, the EMS Agency and the Public Health Department. The system is similar to email. All messages that are appropriate for dissemination to other staff are to be printed or otherwise shared with affected staff. The System will send an alert tone when messages are received.
  6. HAvBED Status – Hospitals are expected to update their current HAvBED status by 9:00 AM on a daily basis. Updates ideally should be done twice per day, morning and

evening shift. Hospitals should update their bed availability after their normally scheduled daily discharge time. HAvBED shall be the only function utilized on Reddinet for the purposes of assessing bed capacity.

7. Daily HAvBED status updates allow facilities to meet Federal bed availability guidelines. The HAvBED status board carries over all fields from the previous bed availability menu as well as adding two additional fields: ventilators (owned, stockpiled or committed by vendor to the facility), and whether or not a mass decontamination system is available at the facility during the specified time frame.

B. ReddiNet System Failure or Disruption

1. If the ReddiNet System is not functioning due to an internal hospital issue (ie: computer or internet failure), facilities are to utilize the following procedure:
  - a. Attempt to resolve the problem at the computer. Check for correct power and internet connections as well as correct log-in and password.
  - b. Notify the facility ReddiNet coordinator or IT department according to facility policy.
  - c. Notify the EMS Agency of the status of the ReddiNet System and the anticipated return to service.
  - d. Fax Appendix A to the EMS Agency and all facilities in your hospital grouping to notify of your current diversion status. Updates should be provided every 8 hours until the system is functional. If available, the EMS Agency will update facility status on the Reddinet System. For Internal Disaster category only, fax should also be sent to Fire Communications Center (FCC).
  - e. Notify other hospitals, EMS Agency and FCC via ReddiNet when connection is restored.
2. If the ReddiNet System is not functioning due to a systemwide issue, (ie: ReddiNet server or internet service provider failure), facilities are to utilize the following procedure:
  - a. Notify the EMS Agency of the ReddiNet System failure.
  - b. FAX Appendix A to the EMS Agency and all facilities in your hospital grouping to notify of your current diversion status. Updates should be provided every 8 hours until the system is functional. For Internal Disaster category only, fax should also be sent to Fire Communications Center (FCC).
  - c. ReddiNet and/or the EMS Agency will notify all facilities and FCC when service is restored.

- C. Hospital Groupings: The following hospital groupings are to be used for faxed diversion status notifications during a ReddiNet failure. The hospital with a diversion status change will send a fax to the EMS Agency and to each of the hospitals in their group.

<u>Hospital</u>	<u>Hospital Grouping</u>
Community Memorial Hospital	(OVCH, SJRMC, SPH, VCMC)
Los Robles Hospital and Medical Center	(AHSV, SJRMC, SJPVH, VCMC)
Ojai Valley Community Hospital	(CMH, SPH, VCMC)
Santa Paula Hospital	(CMH, OVCH, SJRMC, VCMC)
Adventist Health Simi Valley	(LRHMC, SJPVH, SJRMC, VCMC)
St. John's Regional Medical Center	(CMH, SJPVH, VCMC)
St. John's Pleasant Valley Hospital	(SJRMC, LRHMC, AHSV, VCMC)
Ventura County Medical Center	(CMH, SPH, OVCH, SJRMC, LRHMC)



# County of Ventura

## Emergency Medical Services Agency

### Diversion Notification

(For use during ReddiNet failure only)

Date: \_\_\_\_\_

ReddiNet Failure Reason: \_\_\_\_\_

Time: \_\_\_\_\_

\_\_\_\_\_

Name: \_\_\_\_\_

\_\_\_\_\_

Hospital:

Diversion Category:

CMH

SJPVH

ICU / CCU Saturation

LRRMC

SJRMC

ED Saturation

OVCH

AHSV

Neuro / CT Scanner

SPH

VCMC

Internal Disaster

SRC

**All Diversion Categories send FAX to VCEMS at (805) 981-5300  
and to each location in your hospital grouping:**

Hospital

Fax Number

Hospital Grouping

Community Memorial Hospital

(805) 948-8107

(OVCH, SJRMC, SPH, VCMC)

Los Robles Hospital and Medical Center

(805) 370-4579

(AHSV, SJRMC, SJPVH, VCMC)

Ojai Valley Community Hospital

(805) 640-2360

(CMH, SPH, VCMC)

Santa Paula Hospital

(805) 525-6778

(CMH, OVCH, SJRMC, VCMC)

Adventist Health Simi Valley

(805) 527-9374

(LRHMC, SJPVH, SJRMC, VCMC)

St. John's Regional Medical Center

(805) 981-4436

(CMH, SJPVH, VCMC)

St. John's Pleasant Valley Hospital

(805) 383-7465

(SJRMC, LRHMC, AHSV, VCMC)

Ventura County Medical Center

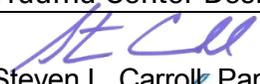
(805) 652-3299

(CMH, SPH, OVCH, SJRMC, LRHMC)

**For diversion due to Internal Disaster, also send FAX to:**

Ventura County Fire Communications Center

(805) 383-7631

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Trauma Center Designation		Policy Number 1401	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: June 1, 2019	
APPROVED: Medical Director:	 Daniel Shepherd, M.D.	Date: June 1, 2019	
Origination Date:	July 1, 2010		
Date Revised:	March 12, 2019	Effective Date: June 1, 2019	
Date Last Reviewed:	March 12, 2019		
Review Date:	March 31, 2022		

- I. PURPOSE: To establish a procedure for the designation of trauma centers in Ventura County
- II. AUTHORITY: Health and Safety Code, §1797.160, §1797.161, and §1798, and California Code of Regulations, Title 22, §100255.
- III. POLICY:
  - A. Trauma Center Designation
    1. Ventura County Emergency Medical Services Agency will issue a request for proposal (RFP) for the designation of the trauma center(s). The RFP will include:
      - a. Introduction and background information about Ventura County's trauma system.
      - b. General information and instructions about trauma center designation including eligibility for application, primary service areas, fees and EMS's no guarantee policy of the minimum number of trauma patients
      - c. Level of designation desired
      - d. Reference to Title 22 and the American College of Surgeons "Resource for Optimal Care of the Injured Patient 2006" as the criteria for designation. Applicants will be required to describe their current compliance with these criteria or to indicate plans to achieve compliance within 6 months of the nomination for designation.
      - e. List of the minimal requirements for designation that

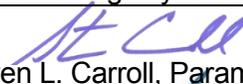
includes: hospital organization, medical staff support, the trauma program, the trauma medical director, the trauma resuscitation team, the trauma service, the trauma program manager, the trauma registrar and interventional radiology services on site. (Please see page 31- 35 of the “Resource for Optimal Care of the Injured Patient 2006” for full description of the above).

- f. A list of trauma center conditions and requirements commensurate with the level of designation desired, which the applicant will be required to accept.
  - g. A contract between the applicant hospital and Ventura County Emergency Medical Services Agency to be completed when the hospital’s application has been approved. Applicants will be required to indicate their acceptance of the contract or to submit alternative language for any clause which they are unwilling to accept.
  - h. A schedule of fees for Level II trauma center applications and ongoing designation/contracts.
2. The RFP will be sent by registered, return-receipt-requested mail to those hospitals in Ventura County who submitted the required letter of interest. Any hospital wishing to respond to the RFP will be required to complete the RFP as outlined in the RFP and submit the application fee by a specified date and time. Thereafter, all communication regarding the process will be sent only to hospitals that have indicated their interest.
  3. EMS will host a mandatory pre-proposal conference
  4. Hospitals will have up to 60 days to submit an original and six copies of the proposal to ACS. Other submission requirements will be outlined in the RFP.
  5. The independent review panel (IRP) will include experts as appropriate for the level of designation such as a trauma surgeon(s), emergency physician(s), trauma program manager(s), hospital administrator(s), EMS Agency administrator(s) and/or individuals with similar qualifications. The IRP shall be composed of individuals who work outside of the County of Ventura and have no affiliation or allegiance to any hospital within the

County, and who are selected and approved by the Trauma Working Group.

6. The proposal review process will be contracted to American College of Surgeons which will include a site visit for the purpose of confirming the information submitted as well as an evaluation of the hospital's capability and commitment to serve as a trauma center at the level of designation defined in the RFP. The IRP will evaluate proposals according to but not limited to:
    - a. Compliance with minimum standards
    - b. Quality and scope of service
    - c. Applicant's demonstrated commitment to the care of major trauma patients
    - d. Comprehensiveness
    - e. Cost effectiveness of the proposed service
    - f. Actuality of the demonstrated ability to provide Level II trauma services versus a stated plan to provide the service
  7. The nominated designated hospital must agree to obtain verification by the American College of Surgeons as a Level II trauma center within 3 years of designation at cost to the hospital.
- B. Designation
1. Following the site visits, the IRP will report on its findings and decision on designation of trauma hospitals. This will include any recommended corrective action plan that would be required to meet trauma center requirements.
  2. IRP recommendations will be forwarded to the Ventura County Board of Supervisors for final designation.
  3. Reports of the IRP will be made available upon request.
- C. Appeals
1. Notices of findings and copies of reports specific to each applicant will be sent to the appropriate applicant. Applicants will have 10 working days to appeal from the day of receipt of the preliminary recommendations of IRP. Grounds for appeals are limited to alleged failure to follow the RFP or proposal review process. Expert judgments or analyses of the survey team are not subject to appeal.

2. A three-member appeal panel whose members have expertise in proposal reviews, and have no allegiance or affiliation with any hospital within the County or to any member of the IRP, and who are selected and approved by the Trauma Working Group, will review the appeal and make a decision. All decisions are final and cannot be appealed further.
3. A fee of \$5,000 will be required to request an appeal. These funds shall be used by the County to recover costs of resources used to reply to the appeal.

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Trauma Registry and Data		Policy Number 1403	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: June 1, 2019	
APPROVED: Medical Director:	 Daniel Shepherd, M.D.	Date: June 1, 2019	
Origination Date:	July 14, 2015		
Date Revised:	March 12, 2019	Effective Date: June 1, 2019	
Date Last Reviewed:	March 12, 2019		
Review Date:	March 31, 2022		

- I. PURPOSE: To standardize data elements collected from trauma care facilities to monitor, review, evaluate, and improve the delivery of prehospital advanced life support and hospital trauma care services.
- II. AUTHORITY: Health and Safety Code, §1797.160, §1797.161, and §1798, and California Code of Regulations, Title 22, §100255.
- III. POLICY: The following information shall be collected by Ventura County designated Trauma Centers and Community Hospitals and reported to the Ventura County EMS Agency.
- IV. INCLUSION CRITERIA
  - A. Diagnostic code for any injury included in the following range:  
ICD-10-CM: S00-S99, T07, T14, T20-T28, T30-T32 and T79.A1-T79.A9  
AND  
At least one injury with a diagnostic code outside the following range:  
S00, S10, S20, S30, S40, S50, S60, S70, S80, S90
  - B. Meets at least ONE of the following criteria
    - a. Death
    - b. Hospital admission as either observation or inpatient status
    - c. Interfacility transfer to provide a higher level of trauma care (in or out)
    - d. Meets prehospital trauma triage criteria for Step 1-4
    - e. Trauma centers ONLY: full or limited trauma team activation

- C. Data element description
  - 1. Trauma Centers
    - a. Current data components for NTDS® (National Trauma Data Standard)
    - b. Ventura County specific data
      - 1. Hospital account number for ED visit
      - 2. If transported to trauma center by ambulance
        - A. ImageTrend ePCR number
        - B. Trauma Step assigned by EMS
  - 2. Community hospitals
    - a. Date of birth
    - b. Date of ED arrival
    - c. Date of admission
    - d. Hospital account number
    - e. ICD-9 or ICD-10 codes
    - f. Hospital outcome
- D. Reporting
  - 1. Trauma Centers
    - a. Complete spreadsheets as requested by EMS each quarter
    - b. Fax or email to EMS any transfer of trauma patients for a higher level of care
    - c. Comply with data collection as needed by EMS
  - 2. Community hospitals
    - a. Fax or email to EMS any Emergent/Urgent trauma transfer
    - b. Comply with data collection as needed by EMS

**705 Minor Changes**

<b>Policy Status</b>	<b>Policy #</b>	<b>Title/New Title</b>	<b>Notes</b>
Minor Updates	0705_02	Allergic Reaction Anaphylaxis	All 705 "Prior to contact" orders changed to "standing orders". BHC still gets made however this title change clarifies that standing orders remain in effect for the entirety of EMS patient care.
	0705_03	Altered Neurologic Function	
	0705_04	Behavioral Emergencies	
	0705_05	Bites and Stings	
	0705_06	Burns	
	0705_07	Cardiac Arrest Asystole and PEA	
	0705_08	Cardiac Arrest VF-VT	
	0705_09	Chest Pain	
	0705_10	Childbirth	
	0705_11	Crush Injury	
	0705_12	Heat Emergencies	
	0705_13	Cold Emergencies	
	0705_14	Hypovolemic Shock	
	0705_15	Nausea/Vomiting	
	0705_16	Neonatal Resuscitation	
	0705_17	Nerve Agent/Organophosphate Poisoning	
	0705_18	Overdose	
	0705_19	Pain Control	
	0705_20	Seizures	
	0705_21	SOB Pulmonary Edema	
	0705_22	SOB Wheezes	
	0705_23	Supraventricular Tachycardia	
	0705_24	Symptomatic Bradycardia	
	0705_25	VT Sustained	
	0705_26	Suspected Stroke	
	0705_27	Sepsis	
	0705_28	Smoke Inhalation	

## Allergic Reaction and Anaphylaxis

**ADULT**

**PEDIATRIC**

### BLS Procedures

Administer oxygen as indicated

Anaphylaxis: Assist patient with prescribed epinephrine auto-injector, or

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

### ALS Standing Orders

IV/IO access

IV/IO Access

Allergic Reaction:

**Benadryl**

- IV/IO/IM – 50 mg

Allergic Reaction:

**Benadryl**

- IV/IO/IM – 1 mg/kg
- Max 50 mg

Anaphylaxis without shock:

**Epinephrine 1 mg/mL**, if not already administered by BLS personnel

- IM - 0.3 mg
- May repeat in 5 minutes if patient remains in distress

**Albuterol (if wheezing is present)**

- Nebulizer – 5 mg/6 mL
- May repeat as needed

Anaphylaxis without Shock:

**Epinephrine 1 mg/mL**, if not already administered by BLS personnel

- IM – 0.01 mg/kg up to 0.3mg
- May repeat q 5 minutes, if patient remains in distress

**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 MI
  - Repeat as needed

Anaphylaxis with Shock:

**Epinephrine 10mcg/mL**

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

- Initiate 2<sup>nd</sup> IV/IO

**Normal Saline**

- IV/IO bolus – 1 Liter
- May repeat x 1 as indicated

Anaphylaxis with Shock:

**Epinephrine 10mcg/mL**

- 0.1mL/kg (1mcg/kg) every 2 minutes, slow IV/IO push
- Max single dose of 1mL or 10mcg
- Titrate to SBP of greater than or equal to 80 mm/Hg

- Initiate 2<sup>nd</sup> IV if possible or establish IO

**Normal Saline**

- IV/IO bolus – 20 mL/kg
- May repeat x 1 as indicated

### 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. Utilize IM Epinephrine prior to other medications or prior to IV/IO epinephrine. Epinephrine is the priority in patients with anaphylaxis.
- Refer to VCEMS Policy 735 for additional information on preparing push dose epinephrine solution.

Effective Date: March 1, 2019  
Next Review Date: January 30, 2021

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



VCEMS Medical Director

Effective Date: March 1, 2019  
Next Review Date: January 30, 2021

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



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VCEMS Medical Director

<b>Altered Neurologic Function</b>										
<b>ADULT</b>	<b>PEDIATRIC</b>									
<b>BLS Procedures</b>										
<p>If suspected stroke, refer to VC EMS Policy 705.26 – Suspected Stroke Administer oxygen as indicated Determine blood glucose level If less than 60 mg/dl</p> <ul style="list-style-type: none"> <li>• <b>Oral Glucose</b> – patient must be awake and able to swallow with a gag reflex intact                             <ul style="list-style-type: none"> <li>○ PO 15 g</li> </ul> </li> </ul> <p><i>* Treat as above if you have clinical suspicion of hypoglycemia and are unable to obtain glucose level due to glucometer malfunction or error reading.</i></p>										
<b>ALS Standing Orders</b>										
<p>IV/IO Access Determine Blood Glucose level, if not already performed by BLS personnel or post oral glucose administration <u>If less than 60 mg/dl</u></p> <ul style="list-style-type: none"> <li>• <b>D10W - Preferred</b> <ul style="list-style-type: none"> <li>○ IV/IOPB-100 mL (10 g)-Rapid Infusion</li> </ul> </li> <li>• <b>D5W</b> <ul style="list-style-type: none"> <li>○ IV/IOPB-200 mL (10 g)-Rapid Infusion</li> </ul> </li> <li>• <b>D50W</b> <ul style="list-style-type: none"> <li>○ IV/IO – 25 mL (12.5 g)</li> </ul> </li> <li>• <b>Glucagon</b> (If no IV access)                             <ul style="list-style-type: none"> <li>○ IM – 1 mg</li> </ul> </li> </ul> <p>Recheck Blood Glucose level 5 min after D10W, D5W, D50W, or 10 min after Glucagon administration</p> <p><u>If still less than 60 mg/dl</u></p> <ul style="list-style-type: none"> <li>• <b>D10W - Preferred</b> <ul style="list-style-type: none"> <li>○ IV/IOPB-150 mL (15 g)-Rapid Infusion</li> </ul> </li> <li>• <b>D5W</b> <ul style="list-style-type: none"> <li>○ IV/IOPB-250 mL (12.5 g)- Rapid Infusion</li> </ul> </li> <li>• <b>D50W</b> <ul style="list-style-type: none"> <li>○ IV/IO – 25 mL (12.5 g)</li> </ul> </li> </ul> <p><i>* Treat as above if you have clinical suspicion of hypoglycemia and are unable to obtain glucose level due to glucometer malfunction or error reading.</i></p>	<p>IV/IO Access Determine Blood Glucose level, if not already performed by BLS personnel or post oral glucose administration <u>If less than 60 mg/dl</u></p> <ul style="list-style-type: none"> <li>• All Pediatric Patients</li> <li>• <b>D10W - Preferred</b> <ul style="list-style-type: none"> <li>○ IV/IOPB-5 mL/kg-Rapid Infusion</li> <li>○ Max 100 mL</li> </ul> </li> <li>• <b>D5W</b> <ul style="list-style-type: none"> <li>○ IV/IOPB-10 mL/kg-Rapid Infusion</li> <li>○ Max 200mL</li> </ul> </li> <li>• Less than 2 years old</li> <li>• <b>D25W</b> <ul style="list-style-type: none"> <li>○ IV/IO – 2 mL/kg</li> </ul> </li> <li>• 2 years old and greater</li> <li>• <b>D50W</b> <ul style="list-style-type: none"> <li>○ IV/IO – 1 mL/kg</li> </ul> </li> <li>• All Pediatric Patients</li> <li>• <b>Glucagon</b> (If no IV/IO access)                             <ul style="list-style-type: none"> <li>○ IM – 0.1 mL/kg</li> <li>○ Max 1 mg</li> </ul> </li> </ul> <p>Recheck Blood Glucose level 5 min after D25W, D50W, D10W, D5W or 10 min after Glucagon administration</p> <p><u>If still less than 60 mg/dl</u> All Pediatric Patients</p> <ul style="list-style-type: none"> <li>• <b>D10W - Preferred</b> <ul style="list-style-type: none"> <li>○ IV/IOPB-7.5 mL/kg-Rapid Infusion</li> <li>○ Max 150 mL</li> </ul> </li> <li>• <b>D5W</b> <ul style="list-style-type: none"> <li>○ IV/IOPB-15 mL/kg-Rapid Infusion</li> <li>○ Max 250 mL</li> </ul> </li> </ul> <p>Less than 2 years old</p> <ul style="list-style-type: none"> <li>• <b>D25W</b> <ul style="list-style-type: none"> <li>○ IV/IO – 2 mL/kg</li> </ul> </li> </ul> <p>2 years old and greater</p> <ul style="list-style-type: none"> <li>• <b>D50W</b> <ul style="list-style-type: none"> <li>○ IV/IO – 1 mL/kg</li> </ul> </li> </ul> <p><i>* Treat as above if you have clinical suspicion of hypoglycemia and are unable to obtain glucose level due to glucometer malfunction or error reading.</i></p>									
<b>Base Hospital Orders only</b>										
Consult with ED Physician for further treatment measures										
<p>Additional Information:</p> <ul style="list-style-type: none"> <li>• Certain oral hypoglycemic agents (e.g. - sulfonylureas) and long-acting insulin preparations have a long duration of action, sometimes up to 72 hours. Patients on these medications who would like to decline transport MUST be warned about the risk of repeat hypoglycemia for up to 3 days, which can occur during sleep and result in the patient's death. If the patient continues to decline further care, every effort must be made to have the patient speak to the ED Physician prior to leaving the scene.</li> <li>• If patient has an ALOC and Blood Glucose level is greater than 60 mg/dl, consider alternate causes:</li> </ul> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;"><b>A - Alcohol</b></td> <td style="width: 33%;"><b>O - Overdose</b></td> <td style="width: 33%;"><b>I - Infection</b></td> </tr> <tr> <td><b>E - Epilepsy</b></td> <td><b>U - Uremia</b></td> <td><b>P - Psychiatric</b></td> </tr> <tr> <td><b>I - Insulin</b></td> <td><b>T - Trauma</b></td> <td><b>S – Stroke</b></td> </tr> </table>		<b>A - Alcohol</b>	<b>O - Overdose</b>	<b>I - Infection</b>	<b>E - Epilepsy</b>	<b>U - Uremia</b>	<b>P - Psychiatric</b>	<b>I - Insulin</b>	<b>T - Trauma</b>	<b>S – Stroke</b>
<b>A - Alcohol</b>	<b>O - Overdose</b>	<b>I - Infection</b>								
<b>E - Epilepsy</b>	<b>U - Uremia</b>	<b>P - Psychiatric</b>								
<b>I - Insulin</b>	<b>T - Trauma</b>	<b>S – Stroke</b>								

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Last Reviewed: April 12, 2018

  
VCEMS Medical Director

<b>Behavioral Emergencies</b>	
<b>ADULT</b>	<b>PEDIATRIC</b>
<b>ALS Standing Orders</b>	
<p>IV/IO Access</p> <p>For Extreme Agitation</p> <ul style="list-style-type: none"> <li>• <b>Midazolam</b> <ul style="list-style-type: none"> <li>○ IM – 5mg or 10 mg (5mg/ml)</li> <li>○ IV/IO – 2 mg                             <ul style="list-style-type: none"> <li>• Repeat 1 mg q 2 min as needed</li> <li>• Max 5 mg</li> </ul> </li> </ul> </li> </ul> <p>FOR IV USE: Dilute 5 mg (1 mL) Midazolam with 4 mL NS for a final volume of 5 mL concentration of 1 mg/mL</p> <p>When safe to perform, determine blood glucose level</p>	<p>For Extreme Agitation</p> <ul style="list-style-type: none"> <li>• <b>Midazolam</b> <ul style="list-style-type: none"> <li>○ IM – 0.1 mg/kg                             <ul style="list-style-type: none"> <li>• Max 5 mg</li> </ul> </li> </ul> </li> </ul> <p>When safe to perform, determine blood glucose level</p>
<b>Base Hospital Orders only</b>	
Consult with ED Physician for further treatment measures	
<p>Additional Information:</p> <ul style="list-style-type: none"> <li>• If patient refuses care and transport, and that refusal is because of “mental disorder”, consider having patient taken into custody according to Welfare and Institutions Code Section 5150 or 5585 “Mental disorders” do not generally include alcohol or drug intoxication, brain injury, hypoxemia, hypoglycemia, or similar causes.</li> <li>• Refer to VC EMS pre-hospital provider fact sheet for suspected excited delirium patients. Be sure to consider and rule out other possible causes or behavior (traumatic or medical).</li> <li>• Use of restraints (physical or chemical) shall be documented and monitored in accordance with VCEMS policy 732</li> <li>• Welfare and Institutions Code Section 5585:             <ul style="list-style-type: none"> <li>○ Known as the Children’s Civil Commitment and Mental Health Treatment Act of 1988, a minor patient may be taken into custody if, as a result of a mental disorder, there is a danger to self and others or is gravely disabled. A California peace officer, a California licensed psychiatrist in an approved facility, Ventura County Health Officer or other County-designated individuals, can take the individual into custody, but it must be enforced by the police in the field.</li> </ul> </li> <li>• Welfare and Institutions Code Section 5150:             <ul style="list-style-type: none"> <li>○ A patient may be taken into custody if, as a result of a mental disorder, there is a danger to self and others or is gravely disabled. A California peace officer, a California licensed psychiatrist in an approved facility, Ventura County Health Officer or other County-designated individuals, can take the individual into custody, but it must be enforced by the police in the field.</li> </ul> </li> <li>• All patients shall be transported to the most accessible Emergency Department for medical clearance prior to admission to a psychiatric facility</li> </ul> <p>Ventura County Mental Health Crisis Team: (866) 998-2243</p>	

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

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Next Review Date: March 31, 2017

Date Revised: August, 2010  
Last Reviewed: March 12, 2015



VCEMS Medical Director

<b>Burns</b>	
<b>ADULT</b>	<b>PEDIATRIC</b>
<b>BLS Procedures</b>	
<ul style="list-style-type: none"> <li>• Stop the burning process                             <ul style="list-style-type: none"> <li>○ Thermal                                     <ul style="list-style-type: none"> <li>▪ Put out fire using water or some other non-hazardous, non-flammable liquid. Fire extinguisher may be used.</li> </ul> </li> <li>○ Liquid Chemical                                     <ul style="list-style-type: none"> <li>▪ Flush area with water.</li> </ul> </li> <li>○ Powdered Chemical                                     <ul style="list-style-type: none"> <li>▪ Brush off as much as possible prior to flushing area with copious amounts of water.</li> </ul> </li> <li>○ Electrical                                     <ul style="list-style-type: none"> <li>▪ Turn off power source and safely remove victim from hazard area.</li> </ul> </li> </ul> </li> <li>• Remove rings, constrictive clothing and garments made of synthetic material</li> <li>• Assess for chemical, thermal, electrical, or radiation burns and treat accordingly</li> <li>• If less than 10% Total Body Surface Area (TBSA) is burned, cool with saline dressings.</li> <li>• For TBSA greater than 10%, cover burned area with dry sterile dressings first, followed by a clean dry sheet.</li> <li>• Once area is cooled, remove saline dressings and cover with dry, sterile burn sheets</li> <li>• Elevate burned extremities if possible</li> <li>• Maintain body heat at all times</li> <li>• Administer oxygen as indicated</li> </ul>	
<b>ALS Standing Orders</b>	
IV/IO access <b>Morphine</b> – per Policy 705 - Pain Control  If TBSA greater than 10% or hypotension is present: <ul style="list-style-type: none"> <li>• <b>Normal Saline</b> <ul style="list-style-type: none"> <li>○ IV/IO bolus – 1 Liter</li> </ul> </li> </ul>	IV/IO access <b>Morphine</b> – per Policy 705 - Pain Control  If TBSA greater than 10% or hypotension is present: <ul style="list-style-type: none"> <li>• <b>Normal Saline</b> <ul style="list-style-type: none"> <li>○ IV/IO bolus – 20 mL/kg</li> </ul> </li> </ul>
<b>Base Hospital Orders only</b>	
Consult with ED Physician for further treatment measures	
Additional Information <ul style="list-style-type: none"> <li>• Hypothermia is a concern in patients with large body surface area burns. As moist dressings increase the risk of hypothermia, Morphine Sulfate is the preferred method of pain control in these patients.</li> </ul>	

<b>Cardiac Arrest – Asystole/Pulseless Electrical Activity (PEA)</b>	
<b>ADULT</b>	<b>PEDIATRIC</b>
<b>BLS Procedures</b>	
Initiate Cardiac Arrest Management (CAM) Protocol Airway management per VCEMS policy	
<b>ALS Standing Orders</b>	
<p>Assess/treat causes IV/IO access</p> <ul style="list-style-type: none"> <li>• PRESTO Blood Draw</li> </ul> <p><b>Epinephrine</b></p> <ul style="list-style-type: none"> <li>• IV/IO – <b>0.1mg/mL</b>: 1 mg (10 mL) q 3-5 min</li> </ul> <p>If suspected hypovolemia:</p> <ul style="list-style-type: none"> <li>• <b>Normal Saline</b> <ul style="list-style-type: none"> <li>○ IV/IO bolus – 1 Liter</li> </ul> </li> </ul> <p>ALS Airway Management</p> <ul style="list-style-type: none"> <li>• If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures</li> </ul>	<p>Assess/treat causes IV/IO access</p> <ul style="list-style-type: none"> <li>• PRESTO Blood Draw</li> </ul> <p><b>Epinephrine 0.1mg/mL</b></p> <ul style="list-style-type: none"> <li>• IV/IO – 0.01mg/kg (0.1 mL/kg) q 3-5 min</li> </ul> <p>If suspected hypovolemia:</p> <ul style="list-style-type: none"> <li>• <b>Normal Saline</b> <ul style="list-style-type: none"> <li>○ IV/IO bolus – 20 mL/kg</li> <li>• Repeat x 2</li> </ul> </li> </ul> <p>ALS Airway Management</p> <ul style="list-style-type: none"> <li>• If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures in accordance with policy 710.</li> </ul> <p>Make early Base Hospital contact for all pediatric cardiac arrests</p>
<b>Base Hospital Orders only</b>	
<p>Tricyclic Antidepressant Overdose</p> <ul style="list-style-type: none"> <li>• <b>Sodium Bicarbonate</b> <ul style="list-style-type: none"> <li>• IV/IO – 1 mEq/kg</li> <li>• Repeat 0.5 mEq/kg q 5 min</li> </ul> </li> </ul> <p>Beta Blocker Overdose</p> <ul style="list-style-type: none"> <li>• <b>Glucagon</b> <ul style="list-style-type: none"> <li>○ IV/IO – 2 mg</li> <li>• May give up to 10mg if available</li> </ul> </li> </ul> <p>Calcium Channel Blocker Overdose</p> <ul style="list-style-type: none"> <li>• <b>Calcium Chloride</b> <ul style="list-style-type: none"> <li>○ IV/IO – 1 g</li> <li>• Repeat x 1 in 10 min</li> </ul> </li> <li>• <b>Glucagon</b> <ul style="list-style-type: none"> <li>○ IV/IO – 2 mg</li> <li>• May give up to 10mg if available</li> </ul> </li> </ul> <p>History of Renal Failure/Dialysis</p> <ul style="list-style-type: none"> <li>• <b>Calcium Chloride</b> <ul style="list-style-type: none"> <li>• IV/IO – 1 g</li> <li>• Repeat x 1 in 10 min</li> </ul> </li> <li>• <b>Sodium Bicarbonate</b> <ul style="list-style-type: none"> <li>• IV/IO – 1 mEq/kg</li> <li>• Repeat 0.5 mEq/kg q 5 min x2</li> </ul> </li> </ul>	<p>Tricyclic Antidepressant Overdose</p> <ul style="list-style-type: none"> <li>• <b>Sodium Bicarbonate</b> <ul style="list-style-type: none"> <li>• IV/IO – 1 mEq/kg</li> <li>• Repeat 0.5 mEq/kg q 5 min</li> </ul> </li> </ul> <p>Beta Blocker Overdose</p> <ul style="list-style-type: none"> <li>• <b>Glucagon</b> <ul style="list-style-type: none"> <li>• IV/IO – 0.1 mg/kg</li> <li>• May give up to 10mg if available</li> </ul> </li> </ul> <p>Calcium Channel Blocker Overdose</p> <ul style="list-style-type: none"> <li>• <b>Calcium Chloride</b> <ul style="list-style-type: none"> <li>• IV/IO – 20 mg/kg</li> <li>• Repeat x 1 in 10 min</li> </ul> </li> <li>• <b>Glucagon</b> <ul style="list-style-type: none"> <li>• IV/IO – 0.1 mg/kg</li> <li>• May give up to 10mg if available</li> </ul> </li> </ul> <p>History of Renal Failure/Dialysis</p> <ul style="list-style-type: none"> <li>• <b>Calcium Chloride</b> <ul style="list-style-type: none"> <li>• IV/IO – 20 mg/kg</li> <li>• Repeat x 1 in 10 min</li> </ul> </li> <li>• <b>Sodium Bicarbonate</b> <ul style="list-style-type: none"> <li>• IV/IO – 1 mEq/kg</li> <li>• Repeat 0.5 mEq/kg q 5 min x2</li> </ul> </li> </ul>
<b>Consult with ED Physician for further treatment measures</b>	
<p>Additional Information:</p> <ul style="list-style-type: none"> <li>• If sustained ROSC (&gt; 30 seconds), perform 12-lead EKG and set VT/Vfib alarm if available. Transport to SRC.</li> <li>• If suspected hypovolemia, initiate immediate transport</li> <li>• In cases of normothermic cardiac arrest patients 18 years and older with unwitnessed cardiac arrest, adequate ventilations, vascular access, and persistent asystole or PEA despite 20 minutes of standard advanced cardiac life support, the base hospital should consider termination of resuscitation in the field. If transported, the patient may be transported Code 2. If unable to contact the base hospital, resuscitative efforts may be discontinued and patient determined to be dead.</li> <li>• If patient is <b>hypothermic</b> – only ONE round of medication administration prior to Base Hospital contact. Field determination of death is discouraged in these patients and they should be transported to the most accessible receiving facility.</li> </ul>	

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

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Last Reviewed: August 9, 2018



VCEMS Medical Director

<b>Cardiac Arrest – VF/VT</b>	
<b>ADULT</b>	<b>PEDIATRIC</b>
<b>BLS Procedures</b>	
Initiate Cardiac Arrest Management (CAM) Protocol Airway management per VCEMS policy	
<b>ALS Standing Orders</b>	
<p><b>Defibrillate</b></p> <ul style="list-style-type: none"> <li>Use the biphasic energy settings that have been approved by service provider medical director</li> <li>Repeat every 2 minutes as indicated</li> </ul> <p><b>IV or IO access</b></p> <ul style="list-style-type: none"> <li>PRESTO Blood Draw</li> </ul> <p><b>Epinephrine</b></p> <ul style="list-style-type: none"> <li>IV/IO – 0.1mg/mL: 1 mg (10 mL) q 3-5 min</li> </ul> <p><b>Amiodarone</b></p> <ul style="list-style-type: none"> <li>IV/IO – 300 mg – after second defibrillation</li> <li>If VT/VF persists, 150 mg IV/IO in 3-5 minutes</li> </ul> <p><b>ALS Airway Management</b></p> <ul style="list-style-type: none"> <li>If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures</li> </ul> <p>If VF/VT stops, then recurs, perform defibrillation at the last successful biphasic energy setting</p>	<p><b>Defibrillate – 2 Joules/kg</b></p> <ul style="list-style-type: none"> <li>If patient still in VF/VT at rhythm check, increase to 4 Joules/kg</li> <li>Repeat every 2 minutes as indicated</li> </ul> <p><b>IV or IO access</b></p> <ul style="list-style-type: none"> <li>PRESTO Blood Draw</li> </ul> <p><b>Epinephrine 0.1mg/mL</b></p> <ul style="list-style-type: none"> <li>IV/IO – 0.01mg/kg (0.1 mL/kg) q 3-5 min</li> </ul> <p><b>Amiodarone</b></p> <ul style="list-style-type: none"> <li>IV/IO – 5 mg/kg – after second defibrillation</li> <li>If VT/VF-persists, 2.5 mg/kg IV/IO in 3-5 minutes</li> </ul> <p><b>ALS Airway Management</b></p> <ul style="list-style-type: none"> <li>If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures in accordance with policy 710.</li> </ul> <p>If VF/VT stops, then recurs, perform defibrillation at the last successful biphasic energy setting</p>
<b>Base Hospital Orders only</b>	
<p><b>Tricyclic Antidepressants</b></p> <ul style="list-style-type: none"> <li>Sodium Bicarbonate                             <ul style="list-style-type: none"> <li>IV/IO – 1 mEq/kg                                     <ul style="list-style-type: none"> <li>Repeat 0.5 mEq/kg q 5 min</li> </ul> </li> </ul> </li> </ul> <p><b>Torsades de Pointes</b></p> <ul style="list-style-type: none"> <li>Magnesium Sulfate                             <ul style="list-style-type: none"> <li>IV/IO – 2 g over 2 min                                     <ul style="list-style-type: none"> <li>May repeat x 1 in 5 min</li> </ul> </li> </ul> </li> </ul>	<p><b>Tricyclic Antidepressants</b></p> <ul style="list-style-type: none"> <li>Sodium Bicarbonate                             <ul style="list-style-type: none"> <li>IV/IO – 1 mEq/kg                                     <ul style="list-style-type: none"> <li>Repeat 0.5 mEq/kg q 5 min</li> </ul> </li> </ul> </li> </ul>
<p>Consult with ED Physician for further treatment measures <u>ED Physician Order Only</u></p> <p>1. History of Renal Failure/Dialysis</p> <ul style="list-style-type: none"> <li><b>Calcium Chloride</b> <ul style="list-style-type: none"> <li>IV/IO – 1g                             <ul style="list-style-type: none"> <li>Repeat x 1 in 10 min</li> </ul> </li> </ul> </li> <li><b>Sodium Bicarbonate</b> <ul style="list-style-type: none"> <li>IV/IO – 1 mEq/kg                             <ul style="list-style-type: none"> <li>Repeat 0.5 mEq/kg q 5 min</li> </ul> </li> </ul> </li> </ul>	<p>Consult with ED Physician for further treatment measures <u>ED Physician Order Only</u></p> <p>1. History of Renal Failure/Dialysis</p> <ul style="list-style-type: none"> <li><b>Calcium Chloride</b> <ul style="list-style-type: none"> <li>IV/IO – 20 mg/kg over 1 min                             <ul style="list-style-type: none"> <li>Repeat x 1 in 10 min</li> </ul> </li> </ul> </li> <li><b>Sodium Bicarbonate</b> <ul style="list-style-type: none"> <li>IV/IO – 1 mEq/kg                             <ul style="list-style-type: none"> <li>Repeat 0.5 mEq/kg q 5 min</li> </ul> </li> </ul> </li> </ul>
<p><b>Additional Information:</b></p> <ul style="list-style-type: none"> <li>If sustained ROSC (&gt;30 seconds), perform 12-lead EKG and set VF/VT alarm if available. Transport to SRC.</li> <li>After 30 minutes of sustained VF/VT, make base contact for transport decision</li> <li>If patient is <u>hypothermic</u>—only ONE round of medication administration and limit <i>defibrillation to 6 times</i> prior to Base Hospital contact. Field determination of death is discouraged in these patients and they should be transported to the most accessible receiving facility</li> <li>Ventricular tachycardia (VT) is a rate &gt; 150 bpm</li> </ul>	

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 VCEMS Medical Director

## Chest Pain – Acute Coronary Syndrome

### BLS Procedures

Administer oxygen if dyspnea, signs of heart failure or shock, or SpO<sub>2</sub> < 94%  
Assist patient with prescribed Nitroglycerin as needed for chest pain

- Hold if SBP less than 100 mmHg

### ALS Standing Orders

Perform 12-lead ECG

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

For continuous chest pain consistent with ischemic heart disease:

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

IV/IO access

- 3 attempts only prior to Base Hospital contact

If pain persists and not relieved by NTG:

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

If patient presents or becomes hypotensive:

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

### Communication Failure Protocol

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

- 4 attempts total per patient

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

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

### Base Hospital Orders only

Consult ED Physician for further treatment measures

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

Additional Information:

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

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VCEMS Medical Director

<b>Childbirth</b>			
<b>BLS Procedures</b>			
<p>Determine</p> <ul style="list-style-type: none"> <li>• Number of pregnancies (gravida)</li> <li>• Number of deliveries (para)</li> <li>• Due date (weeks of gestation)</li> <li>• Onset/duration/frequency/intensity of contractions</li> <li>• If a rupture of membranes has occurred (including color/date/time)</li> <li>• If any expected complications during pregnancy are present</li> <li>• Presence of crowning or any abnormal presenting part at perineum</li> </ul>			
<b>PROLAPSED CORD</b>		<b>OTHER PRESENTING PART</b>	
		<b>DELIVERING</b>	<b>NOT DELIVERING</b>
Cover cord with wet saline dressing Place mother in left-lateral Trendelenberg position Provide constant manual pressure on presenting part to avoid cord compression		Elevate hips Assist delivery while initiating Code-3 transport Assist with breech delivery while supporting the infant's body (covering to maintain body warmth)	Place mother in left-lateral Trendelenberg position Initiate Code-3 transport
Initiate Code-3 transport if there is partial delivery of the infant and no further progress after 1-2 minutes			
<p>If the HEAD is crowning, prepare to assist mother with delivery –            Guide baby out  <b>ONLY IF SECRETIONS, INCLUDING MECONIUM, CAUSE AIRWAY OBSTRUCTION:</b> suction mouth, then nose            Dry and stimulate (rub gently, but briskly with warm towel, provide stocking cap if available)            While drying infant, assess for prematurity, poor respiratory effort, or lack of muscle tone. If any exist, double clamp and cut cord, and begin resuscitation according to VC EMS Policy 705.16, "Neonatal Resuscitation"            Place infant skin-to-skin with mother, cover both with dry linen, and observe for breathing, activity, and color            Double clamp cord and cut with sterile scissors between clamps            Note time of birth            Begin transport. To help prevent heat loss from infant, turn up the heat in the treatment area of the ambulance</p> <ul style="list-style-type: none"> <li>• <i>Do not</i> wait for placenta to deliver</li> </ul> <p>If placenta delivers, assist and package, then gently massage fundus</p> <ul style="list-style-type: none"> <li>• <i>Do not</i> massage fundus until the placenta has delivered</li> </ul> <p>Newborn assessment – at 1 minute and 5 minutes post-delivery (Note: if infant requires resuscitation at birth, defer APGAR scoring to a later time. Resuscitation should not be delayed to assess for APGAR score.</p>			
<b>APGAR score</b>	<b>0</b>	<b>1</b>	<b>2</b>
<b>A - Appearance</b>	Blue/Pale	Pink w/ blue extremities	Pink
<b>P - Pulse</b>	Absent	< 100 bpm	> 100 bpm
<b>G - Grimace (reflex irritability)</b>	Absent	Grimace	Cough/Cry/Sneeze
<b>A - Activity (muscle tone)</b>	Limp	Some flexion	Active
<b>R - Respirations</b>	Absent	Slow	Good cry
<b>ALS Standing Orders</b>			
IV/IO Access			
<b>Base Hospital Orders only</b>			
Consult with ED Physician for further treatment measures			
Additional Information <ul style="list-style-type: none"> <li>• If a patient is in an area where the most accessible hospital does not have obstetric services, consult with the Base Hospital for destination determination.</li> </ul>			

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 VCEMS Medical Director

<b>Crush Injury/Syndrome</b>	
<b>ADULT</b>	<b>PEDIATRIC</b>
<b>BLS Procedures</b>	
Perform spinal precautions as indicated Determine Potential vs. Actual Crush Syndrome Administer oxygen as indicated Maintain body heat	
<b>ALS Standing Orders</b>	
Potential for Crush Syndrome <ul style="list-style-type: none"> <li>• IV/IO access</li> <li>• Release compression</li> <li>• Monitor for cardiac dysrhythmias</li> </ul>	
<b>Communication Failure Protocol</b>	
Crush Syndrome <ul style="list-style-type: none"> <li>• Initiate 2<sup>nd</sup> IV/IO access</li> <li>• <b>Normal Saline</b> <ul style="list-style-type: none"> <li>○ IV/IO bolus – 1 Liter                             <ul style="list-style-type: none"> <li>• Caution with cardiac and/or renal history</li> </ul> </li> </ul> </li> <li>• <b>Sodium Bicarbonate</b> <ul style="list-style-type: none"> <li>○ IV/IO mix – 1 mEq/kg                             <ul style="list-style-type: none"> <li>• Added to 1<sup>st</sup> Liter of Normal Saline</li> </ul> </li> </ul> </li> <li>• <b>Albuterol</b> <ul style="list-style-type: none"> <li>○ Nebulizer – 5 mg/6 mL                             <ul style="list-style-type: none"> <li>• Repeat as needed</li> </ul> </li> </ul> </li> <li>• <b>Morphine</b> – Per Policy 705 - Pain Control</li> <li>• Release compression</li> <li>• Monitor for cardiac dysrhythmias</li> <li>• For cardiac dysrhythmias:                             <ul style="list-style-type: none"> <li>○ <b>Calcium Chloride</b> <ul style="list-style-type: none"> <li>• IV/IO – 1 g over 1 min</li> </ul> </li> </ul> </li> </ul> For continued shock <ul style="list-style-type: none"> <li>• <b>Repeat Normal Saline</b> <ul style="list-style-type: none"> <li>○ IV/IO bolus – 1 Liter</li> </ul> </li> </ul>	Crush Syndrome <ul style="list-style-type: none"> <li>• Initiate 2<sup>nd</sup> IV/IO access if possible or establish IO</li> <li>• <b>Normal Saline</b> <ul style="list-style-type: none"> <li>○ IV/IO bolus – 20 mL/kg                             <ul style="list-style-type: none"> <li>• Caution with cardiac and/or renal history</li> </ul> </li> </ul> </li> <li>• <b>Sodium Bicarbonate</b> <ul style="list-style-type: none"> <li>○ IV/IO mix– 1 mEq/kg                             <ul style="list-style-type: none"> <li>• Added to 1<sup>st</sup> Liter of Normal Saline</li> </ul> </li> </ul> </li> <li>• <b>Albuterol</b> <ul style="list-style-type: none"> <li>○ <b>Patient less than 30 kg</b> <ul style="list-style-type: none"> <li>• Nebulizer – 2.5 mg/3 mL                                     <ul style="list-style-type: none"> <li>○ Repeat as needed</li> </ul> </li> </ul> </li> <li>○ <b>Patient greater than 30 kg</b> <ul style="list-style-type: none"> <li>• Nebulizer – 5 mg/6 mL                                     <ul style="list-style-type: none"> <li>○ Repeat as needed</li> </ul> </li> </ul> </li> </ul> </li> <li>• <b>Morphine</b> – Per Policy 705 - Pain Control</li> <li>• Release compression</li> <li>• Monitor for cardiac dysrhythmias</li> <li>• For cardiac dysrhythmias:                             <ul style="list-style-type: none"> <li>○ <b>Calcium Chloride</b> <ul style="list-style-type: none"> <li>• IV/IO – 20 mg/kg over 1 min</li> </ul> </li> </ul> </li> </ul> For continued shock <ul style="list-style-type: none"> <li>• <b>Repeat Normal Saline</b> <ul style="list-style-type: none"> <li>○ IV/IO bolus – 20 mL/kg</li> </ul> </li> </ul>
<b>Base Hospital Orders only</b>	
For persistent hypotension after fluid bolus: <ul style="list-style-type: none"> <li>• Epinephrine 10 mcg/mL                             <ul style="list-style-type: none"> <li>○ 1 mL (10 mcg) q 2 minutes, slow IV/IO push</li> <li>○ Titrate to SBP of greater than or equal to 90 mm/Hg</li> </ul> </li> </ul> Consult with ED Physician for further treatment measures	For persistent hypotension after fluid bolus: <ul style="list-style-type: none"> <li>• Epinephrine 10 mcg/mL                             <ul style="list-style-type: none"> <li>○ 0.1 mL/kg (1 mcg/kg) q 2 minutes, slow IV/IO push</li> <li>○ Max single dose of 1 mL or 10 mcg</li> <li>○ Titrate to SBP of greater than or equal to 80 mm/Hg</li> </ul> </li> </ul> Consult with ED Physician for further treatment measures
Additional Information: <ul style="list-style-type: none"> <li>• Refer to VCEMS Policy 735 for additional information on preparing push dose epinephrine solution. Potential Crush Syndrome – Continuous crush injury to torso or extremity above wrist or ankle for 2 hours or less.</li> <li>• Crush Syndrome – Continuous crush injury to torso or extremity above wrist or ankle for greater than 2 hours.</li> <li>• If elderly or cardiac history is present, use caution with fluid administration. Reassess and treat accordingly.</li> <li>• Dysrhythmias are usually secondary to Hyperkalemia. ECG monitor may show: Peaked T-waves, Absent P-waves, widened QRS complexes, bradycardia</li> <li>• Calcium Chloride and Sodium Bicarbonate precipitate when mixed. Strongly consider starting a second IV (if feasible) for administration of Calcium Chloride</li> </ul>	

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VCEMS Medical Director

<b>Heat Emergencies</b>	
<b>ADULT</b>	<b>PEDIATRIC</b>
<b>BLS Procedures</b>	
Place patient in cool, shaded environment Initiate active cooling measures <ul style="list-style-type: none"> <li>• Remove clothing</li> <li>• Fan the patient, or turn on air conditioner</li> <li>• Apply ice packs to axilla, groin, back of neck</li> <li>• Other active cooling measures as available</li> </ul> Administer oxygen as indicated If patient is altered, determine blood glucose level If less than 60 mg/dl refer to Policy 705.03	
<b>ALS Standing Orders</b>	
If patient is altered, determine blood glucose if not already performed by BLS personnel or post oral glucose administration  If less than 60 mg/dl, refer to Policy 705.03 IV/IO access <b>Normal Saline</b> <ul style="list-style-type: none"> <li>• IV/IO bolus – 1 Liter               <ul style="list-style-type: none"> <li>○ Caution with cardiac and/or renal history</li> </ul> </li> </ul>	If patient is altered, determine blood glucose if not already performed by BLS personnel or post oral glucose administration  If less than 60 mg/dl, refer to Policy 705.03 IV/IO access <b>Normal Saline</b> <ul style="list-style-type: none"> <li>• IV/IO bolus – 20 mL/kg               <ul style="list-style-type: none"> <li>○ Caution with cardiac and/or renal history</li> </ul> </li> </ul>
<b>Communication Failure Protocol</b>	
If hypotensive after initial IV/IO fluid bolus: <ul style="list-style-type: none"> <li>• <i>Repeat Normal Saline</i> <ul style="list-style-type: none"> <li>○ IV/IO bolus – 1 Liter</li> </ul> </li> </ul>	If hypotensive after initial IV/IO fluid bolus: <ul style="list-style-type: none"> <li>• <i>Repeat Normal Saline</i> <ul style="list-style-type: none"> <li>○ IV/IO bolus – 20 mL/kg</li> </ul> </li> </ul>
<b>Base Hospital Orders only</b>	
Consult with ED Physician for further treatment measures	

## Cold Emergencies

### BLS Procedures

Gently move patient to warm environment and begin passive warming

Increase ambulance cabin heat, if applicable

Remove wet clothing and cover patient, including head, with dry blankets

Administer oxygen as indicated

If patient is altered, determine blood glucose level

If less than 60 mg/dl refer to Policy 705.03

Monitor vital signs for 1 minute. If vital signs are within the acceptable range for severe hypothermia, do not initiate respiratory assistance or chest compressions

- Acceptable range for severe hypothermia:
  - Respiratory Rate: at least 4 breaths per minute
  - Heart rate: at least 20 beats per minute
- Expedite transport if no shivering (indicates core temp below 90°)

### ALS Standing Orders

If patient is altered, determine blood glucose if not already performed by BLS personnel or post oral glucose administration

If less than 60 mg/dl, refer to Policy 705.03

IV/IO access (if needed for medication or fluid administration)

- If administering fluid, avoid administering cold fluids.

### Base Hospital Orders only

Consult with ED Physician for further treatment measures

<b>Neonatal Resuscitation</b>	
<b>BLS Procedures</b>	
<p style="text-align: center;"><b>Newly Born Infant</b></p> <p>Provide warmth, dry briskly and discard wet linen</p> <ul style="list-style-type: none"> <li>Suction ONLY if secretions, including meconium, cause airway obstruction</li> </ul> <p>Assess while drying infant</p> <ol style="list-style-type: none"> <li>Full term?</li> <li>Crying or breathing?</li> <li>Good muscle tone?</li> </ol> <p>If "YES" to all three</p> <ul style="list-style-type: none"> <li>Place skin-to-skin with mother</li> <li>Cover both with dry linen</li> <li>Observe breathing, activity, color</li> </ul> <p>If "NO" to any of three</p> <ul style="list-style-type: none"> <li>Stimulate briefly (&lt;15 seconds)                             <ul style="list-style-type: none"> <li>Flick soles of infant's feet</li> <li>Briskly rub infant's back</li> </ul> </li> <li>Provide warm/dry covering</li> <li>Continue to assess</li> </ul>	<p style="text-align: center;"><b>Infant up to 48 hours old</b></p> <p>Provide warmth</p> <ul style="list-style-type: none"> <li>Suction ONLY if secretions cause airway obstruction</li> <li>Stimulate briefly (&lt;15 seconds)                             <ul style="list-style-type: none"> <li>Flick soles of infant's feet</li> <li>Rub infant's back with towel</li> </ul> </li> </ul> <p>Provide warm/dry covering Continue to assess</p>
<p>Assess Breathing</p> <ul style="list-style-type: none"> <li>If crying or breathing, assess circulation</li> <li>If apneic or gasping                             <ul style="list-style-type: none"> <li>Positive pressure ventilations (PPV) with BVM and ROOM AIR at 40-60 breaths per minute for 30 seconds                                     <ul style="list-style-type: none"> <li>Continue PPV, reassessing every 30 seconds, until infant is breathing adequately</li> </ul> </li> <li>Reassess breathing, assess circulation</li> </ul> </li> </ul> <p>Assess Circulation</p> <ul style="list-style-type: none"> <li>If HR between 60 and 100 bpm                             <ul style="list-style-type: none"> <li>PPV with BVM and ROOM AIR at 40-60 breaths per minute for 30 seconds                                     <ul style="list-style-type: none"> <li>Continue PPV, reassessing every 30 seconds, until infant maintains HR &gt;100 bpm</li> </ul> </li> </ul> </li> <li>If HR &lt; 60 bpm                             <ul style="list-style-type: none"> <li>CPR at 3:1 ratio for 30 seconds                                     <ul style="list-style-type: none"> <li>90/min compressions</li> <li>30/min ventilations</li> </ul> </li> <li>Continue CPR, reassessing every 60 seconds, until HR &gt; 60 bpm</li> </ul> </li> <li>If no improvement after 90 seconds of ROOM AIR CPR, add supplemental O<sub>2</sub> until HR &gt; 100</li> </ul>	
<b>ALS Standing Orders</b>	
Establish IO line only in presence of CPR	
<p>Asystole OR Persistent Bradycardia &lt; 60 bpm</p> <ul style="list-style-type: none"> <li><b>Epinephrine 0.1mg/mL</b> <ul style="list-style-type: none"> <li>IO – 0.01mg/kg (0.1mL/kg) q 3-5 min</li> </ul> </li> <li><b>Normal Saline</b> <ul style="list-style-type: none"> <li>IO bolus – 10mL/kg</li> </ul> </li> </ul>	<p style="text-align: center;">PEA</p> <ul style="list-style-type: none"> <li><b>Epinephrine 0.1mg/mL</b> <ul style="list-style-type: none"> <li>IO – 0.01mg/kg (0.1mL/kg) q 3-5 min</li> </ul> </li> <li><b>Normal Saline</b> <ul style="list-style-type: none"> <li>IO bolus – 10mL/kg</li> </ul> </li> </ul>
<b>Base Hospital Orders only</b>	
Consult with ED Physician for further treatment measures	
<p>Additional Information:</p> <ul style="list-style-type: none"> <li>Resuscitation efforts may be withheld for extremely preterm infants (&lt; 21 weeks or &lt; 9 inches long). Sensitivity to the desires of the parent(s) may be considered. If uncertain as to gestational age, begin resuscitation.</li> <li>A rising heart rate is the best indicator of adequate PPV</li> </ul>	

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VCEMS Medical Director

<b>Nerve Agent / Organophosphate Poisoning</b>	
The incident commander is in charge of the scene and you are to follow his/her direction for entering and exiting the scene. Patients in the hot and warm zones <b>MUST</b> be decontaminated prior to entering the cold zone.	
<b>ADULT</b>	<b>PEDIATRIC</b>
<b>BLS Procedures</b>	
Patients that are exhibiting obvious signs of exposure (SLUDGEM) of organophosphate exposure and/or nerve agents	
Maintain airway and position of comfort	
Administer oxygen as indicated	
<ul style="list-style-type: none"> <li>• <b>Mark I or DuoDote Antidote Kit</b> <ul style="list-style-type: none"> <li>○ Mild Exposure: IM x 1</li> <li>○ Moderate Exposure: IM x1                             <ul style="list-style-type: none"> <li>• May repeat in 10 minutes if symptoms persist</li> </ul> </li> <li>○ Severe Exposure: IM x 3 in rapid succession, rotating injection sites</li> </ul> </li> </ul>	
<b>ALS Standing Orders</b>	
<p><i>Patient's that are exhibiting obvious signs of exposure (SLUDGEM) of Organophosphate exposure and/or Nerve Agents</i> <i>If not already administered by BLS personnel:</i></p> <ul style="list-style-type: none"> <li>• <b>Mark I or DuoDote Antidote Kit</b> <ul style="list-style-type: none"> <li>○ Mild Exposure: IM x 1</li> <li>○ Moderate Exposure: IM x1                             <ul style="list-style-type: none"> <li>• May repeat in 10 minutes if symptoms persist</li> </ul> </li> <li>○ Severe Exposure: IM x 3 in rapid succession, rotating injection sites</li> </ul> </li> </ul> <p><u>For seizures:</u></p> <ul style="list-style-type: none"> <li>• Midazolam                             <ul style="list-style-type: none"> <li>○ IV/IO – 2 mg                                     <ul style="list-style-type: none"> <li>• Repeat 1 mg q 2 min as needed</li> <li>• Max 5 mg</li> </ul> </li> <li>○ IM – 0.1 mg/kg                                     <ul style="list-style-type: none"> <li>• Max 5 mg</li> </ul> </li> </ul> </li> </ul>	<p><i>Patient's that are exhibiting obvious signs of exposure (SLUDGEM) of Organophosphate exposure and/or Nerve Agents</i> <i>If not already administered by BLS personnel:</i></p> <ul style="list-style-type: none"> <li>• <b>Mark I or DuoDote Antidote Kit</b> <ul style="list-style-type: none"> <li>○ Mild Exposure: IM x 1</li> <li>○ Moderate Exposure: IM x1                             <ul style="list-style-type: none"> <li>• May repeat in 10 minutes if symptoms persist</li> </ul> </li> <li>○ Severe Exposure: IM x 3 in rapid succession, rotating injection sites</li> </ul> </li> </ul> <p><u>For seizures:</u></p> <ul style="list-style-type: none"> <li>• Midazolam                             <ul style="list-style-type: none"> <li>○ IM – 0.1 mg/kg                                     <ul style="list-style-type: none"> <li>• Max 5 mg</li> </ul> </li> </ul> </li> </ul>
<b>Base Hospital Orders Only</b>	
Consult with ED Physician for further treatment measures	
<ul style="list-style-type: none"> <li>• Refer to VCEMS Policy 705.18-Overdose/Poisoning for organophosphate poisoning treatment guidelines.</li> <li>• DuoDote contains 2.1 mg Atropine Sulfate and 600 mg Pralidoxime Chloride.</li> <li>• <b>Diazepam</b> is available in the CHEMPACK and may be deployed in the event of a nerve agent exposure. Paramedics may administer diazepam using the following dosages for the treatment of seizures:                             <ul style="list-style-type: none"> <li>○ <b>Adult:</b> 5 mg IM/IV/IO q 10 min titrated to effect (<i>max 30 mg</i>)</li> <li>○ <b>Pediatric:</b> 0.1 mg/kg IV/IM/IO (max initial dose 5 mg) over 2-3 min q 10 min titrated to effect (<i>max total dose 10 mg</i>)</li> </ul> </li> <li>• Mild exposure with symptoms:                             <ul style="list-style-type: none"> <li>○ Miosis, rhinorrhea, drooling, sweating, blurred vision, nausea, bradypnea or tachypnea, nervousness, fatigue, minor memory disturbances, irritability, unexplained tearing, wheezing, tachycardia, bradycardia</li> </ul> </li> <li>• Moderate exposure with symptoms:                             <ul style="list-style-type: none"> <li>○ Miosis, rhinorrhea, SOB, wheezing, secretions, soft muscle weakness and fasciculations, GI effects</li> </ul> </li> <li>• Severe exposure with symptoms:                             <ul style="list-style-type: none"> <li>○ Strange confused behavior, severe difficulty breathing, twitching, unconsciousness, seizing, flaccid, apnea pinpoint pupils involuntary defecation, urination</li> </ul> </li> </ul>	

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

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<b>Pain Control</b>	
<b>ADULT</b>	<b>PEDIATRIC</b>
<b>BLS Procedures</b>	
Place patient in position of comfort Administer oxygen as indicated	
<b>ALS Standing Orders</b>	
<p>IV/IO access</p> <p>Cardiac Monitor</p> <p><b>Ondansetron</b></p> <ul style="list-style-type: none"> <li>IV/IM/ODT – 4 mg</li> </ul> <p><b>Morphine – Pain 5 out of 10 or greater</b></p> <p><b>Initial IV Dose</b></p> <ul style="list-style-type: none"> <li>Slow IVP - 0.1 mg/kg over 2 minutes<sup>1</sup></li> <li>Maximum for <b>ANY</b> IV dose is 10 mg</li> </ul> <p><b>Initial IM Dose</b></p> <ul style="list-style-type: none"> <li>IM - 0.1 mg/kg<sup>1</sup></li> <li>Maximum for <b>ANY</b> IM dose is 10 mg</li> </ul> <p><b>May give second IV/IM Dose, if pain persists</b> 5 minutes after IV morphine, or 15 minutes after IM morphine</p> <ul style="list-style-type: none"> <li>Administer half of the initial morphine dose</li> </ul> <p><b>May give third IV/IM Dose, if pain persists</b> 5 minutes after 2<sup>nd</sup> IV morphine, or 15 minutes after 2<sup>nd</sup> IM morphine</p> <ul style="list-style-type: none"> <li><b>Ondansetron</b> (only if third dose of morphine needed)</li> <li>IV/IM/ODT – 4 mg</li> <li>Administer half of the initial morphine dose</li> </ul> <p>Check and document vital signs before and after each administration</p> <ul style="list-style-type: none"> <li>Hold if SBP less than 100 mmHg</li> </ul> <p><i>If patient has significant injury to head, chest, abdomen or is hypotensive, <b>DO NOT</b> administer pain control unless ordered by ED Physician</i></p>	<p>IV/IO access</p> <p>Cardiac Monitor</p> <p><b>Ondansetron:</b> Patient 4 years of age or older</p> <ul style="list-style-type: none"> <li>IV/IM/ODT – 4 mg</li> </ul> <p><b>Morphine – Pain 5 out of 10 or greater</b></p> <p><b>Morphine</b> – given for burns and isolated extremity injuries only. Consider early base contact for other pediatric complaints of pain (e.g. dog bite, cancer)</p> <p><b>Initial IV Dose</b></p> <ul style="list-style-type: none"> <li>Slow IVP - 0.1 mg/kg over 2 minutes<sup>1</sup></li> <li>Maximum for <b>ANY</b> IV dose is 10 mg</li> </ul> <p><b>Initial IM Dose</b></p> <ul style="list-style-type: none"> <li>IM - 0.1 mg/kg<sup>1</sup></li> <li>Maximum for <b>ANY</b> IM dose is 10 mg</li> </ul> <p><b>May give second IV/IM Dose, if pain persists</b> 5 minutes after IV morphine, or 15 minutes after IM morphine</p> <ul style="list-style-type: none"> <li>Administer half of the initial morphine dose</li> </ul> <p><b>May give third IV/IM Dose, if pain persists</b> 5 minutes after 2<sup>nd</sup> IV morphine, or 15 minutes after 2<sup>nd</sup> IM morphine</p> <ul style="list-style-type: none"> <li><b>Ondansetron</b> (only if third dose of morphine needed) <ul style="list-style-type: none"> <li>IV/IM/ODT – 4 mg</li> </ul> </li> <li>Administer half of the initial morphine dose</li> </ul> <p>Check and document vital signs before and after each administration</p> <ul style="list-style-type: none"> <li>Hold if SBP less than 100 mmHg</li> </ul> <p><i>If patient has significant injury to head, chest, abdomen or is hypotensive, <b>DO NOT</b> administer pain control unless ordered by ED Physician</i></p>
<b>Base Hospital Orders only</b>	
Consult with ED Physician for further treatment measures	
<p><b>Additional Information</b></p> <p>1. <b>Special considerations, administer 0.05 mg/kg</b></p> <ul style="list-style-type: none"> <li>Consider lower dose for patients 65 years of age and older.</li> <li>Chest pain not resolved by nitroglycerine (NTG)</li> <li>Patient with history of adverse reaction to morphine</li> <li>Symptomatic bradycardia for patients receiving transcutaneous pacing.</li> </ul>	

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<b>Seizures</b>	
<b>ADULT</b>	<b>PEDIATRIC</b>
<b>BLS Procedures</b>	
<p>Protect from injury</p> <p>Maintain/manage airway as indicated</p> <p>Administer oxygen as indicated</p> <p>For suspected febrile seizures, begin passive cooling measures. If seizure activity persists, see below:</p> <p>Determine Blood Glucose level, and treat according to VC EMS policy 705.03 – Altered Neurologic Function</p>	
<b>ALS Standing Orders</b>	
<p>IV/IO access</p> <p>If not already performed by BLS personnel, determine Blood Glucose level, and treat according to VC EMS policy 705.03 – Altered Neurologic Function</p> <p>Persistent Seizure Activity</p> <ul style="list-style-type: none"> <li>• <b>Midazolam</b> (Give to <i>actively seizing</i> pregnant patients prior to magnesium)                             <ul style="list-style-type: none"> <li>• IM – 0.1 mg/kg Max 5 mg</li> <li>• IV/IO – 2 mg Repeat 1 mg q 2 min as needed Max 5 mg</li> </ul> </li> </ul> <p>FOR IV/IO USE: Dilute 5 mg (1 mL) Midazolam with 4 mL NS for a final volume of 5 mL concentration of 1 mg/mL</p> <p><u>20 weeks gestation to one week postpartum &amp; No Known Seizure History</u></p> <ul style="list-style-type: none"> <li>• <b>Magnesium Sulfate</b> <ul style="list-style-type: none"> <li>○ IV/IOPB – 2 g in 50 mL D<sub>5</sub>W infused over 5 min                                     <ul style="list-style-type: none"> <li>• MUST Repeat x 1</li> <li>• Slow or stop infusion if bradycardia, heart block, or decreased respiratory effort occur</li> </ul> </li> </ul> </li> </ul>	<p>Consider IV/IO access</p> <p>If not already performed by BLS personnel, determine Blood Glucose level, and treat according to VC EMS policy 705.03 – Altered Neurologic Function</p> <p>Persistent Seizure Activity</p> <ul style="list-style-type: none"> <li>• <b>Midazolam</b> <ul style="list-style-type: none"> <li>○ IM – 0.1 mg/kg Max 5 mg</li> </ul> </li> </ul>
<b>Base Hospital Orders only</b>	
Consult with ED Physician for further treatment measures	
<p>Additional Information:</p> <ul style="list-style-type: none"> <li>• Patients with a known seizure disorder or uncomplicated, apparent pediatric febrile seizures, no longer seizing and with a normal postictal state, may be treated as a BLS call.</li> </ul>	

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<b>Shortness of Breath – Pulmonary Edema</b>	
<b>BLS Procedures</b>	
Administer oxygen as indicated	
Initiate CPAP for moderate to severe distress	
<b>ALS Standing Orders</b>	
<b>Nitroglycerin</b>	
<ul style="list-style-type: none"><li>• SL or lingual spray – 0.4 mg q 1 min x 3<ul style="list-style-type: none"><li>○ Repeat 0.4 mg q 2 min</li><li>○ No max dosage</li><li>○ Hold for SBP &lt; 100 mmHg</li></ul></li></ul>	
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:	
<ul style="list-style-type: none"><li>• <b>Albuterol</b><ul style="list-style-type: none"><li>○ Nebulizer – 5 mg/6 mL<ul style="list-style-type: none"><li>• Repeat as needed</li></ul></li></ul></li></ul>	
<b>Communication Failure Protocol</b>	
If patient presents or becomes hypotensive	
<ul style="list-style-type: none"><li>• Epinephrine 10 mcg/mL<ul style="list-style-type: none"><li>○ 1mL (10 mcg) q 2 minutes, slow IV/IO push</li><li>○ Titrate to SBP of greater than or equal to 90 mm/Hg</li></ul></li></ul>	
<b>Base Hospital Orders only</b>	
Consult with ED Physician for further treatment measures	
Additional Information:	
<ul style="list-style-type: none"><li>• Refer to VCEMS Policy 735 for additional information on preparing push dose epinephrine solution.</li><li>• 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.</li></ul>	

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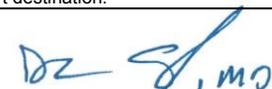


EMS Medical Director

<b>Shortness of Breath – Wheezes/Other</b>	
<b>ADULT</b>	<b>PEDIATRIC</b>
<b>BLS Procedures</b>	
<p>Administer oxygen as indicated</p> <p>Initiate CPAP for both moderate and severe distress – 8 years of age and older</p> <p>Assist patient with prescribed Metered Dose Inhaler if available</p> <p>Severe Distress Only</p> <ul style="list-style-type: none"> <li>• Epinephrine 1 mg/mL               <ul style="list-style-type: none"> <li>○ If Under 30 kg                   <ul style="list-style-type: none"> <li>• IM 0.15 mg                       <ul style="list-style-type: none"> <li>▪ May repeat x1 in 5 minutes if patient still in distress</li> </ul> </li> </ul> </li> <li>○ If 30 kg and Over                   <ul style="list-style-type: none"> <li>• IM – 0.3 mg                       <ul style="list-style-type: none"> <li>▪ May repeat x 1 in 5 minutes if patient still in distress</li> </ul> </li> </ul> </li> </ul> </li> </ul>	
<b>ALS Standing Orders</b>	
<p>Perform Needle Thoracostomy if indicated per VCEMS Policy 715</p> <p>If not already performed by BLS personnel, consider CPAP for both moderate and severe distress</p> <p>Moderate Distress</p> <ul style="list-style-type: none"> <li>• <b>Albuterol</b> <ul style="list-style-type: none"> <li>○ Nebulizer – 5 mg/6 mL               <ul style="list-style-type: none"> <li>• Repeat as needed</li> </ul> </li> </ul> </li> </ul> <p>Severe distress</p> <ul style="list-style-type: none"> <li>• <b>Epinephrine 1 mg/mL</b>, if not already administered by BLS personnel               <ul style="list-style-type: none"> <li>○ IM - 0.3mg                   <ul style="list-style-type: none"> <li>▪ May repeat q 5 minutes if patient still in distress and unable to establish IV/IO</li> </ul> </li> </ul> </li> <li>• <b>Albuterol</b> <ul style="list-style-type: none"> <li>○ Nebulizer – 5 mg/6 mL               <ul style="list-style-type: none"> <li>• Repeat as needed</li> </ul> </li> </ul> </li> <li>• Establish IV/IO and make BHC in anticipation of push dose epi orders</li> </ul> <p>If hypotensive, consider alternative etiologies and refer to additional treatment protocols</p>	<p>Perform Needle Thoracostomy if indicated per VCEMS Policy 715</p> <p>If not already performed by BLS personnel, consider CPAP if age 8 years old and greater</p> <p>Moderate Distress</p> <ul style="list-style-type: none"> <li>• <b>Albuterol</b> <ul style="list-style-type: none"> <li>○ <b>Patient less than 30 kg</b> <ul style="list-style-type: none"> <li>• Nebulizer – 2.5 mg/3 mL               <ul style="list-style-type: none"> <li>○ Repeat as needed</li> </ul> </li> </ul> </li> <li>○ <b>Patient greater than 30 kg</b> <ul style="list-style-type: none"> <li>• Nebulizer – 5 mg/6 mL               <ul style="list-style-type: none"> <li>○ Repeat as needed</li> </ul> </li> </ul> </li> </ul> </li> </ul> <p>Severe Distress</p> <ul style="list-style-type: none"> <li>• <b>Epinephrine 1 mg/mL</b>, if not already administered by BLS personnel               <ul style="list-style-type: none"> <li>○ IM – 0.01 mg/kg up to 0.3mg                   <ul style="list-style-type: none"> <li>• May repeat q 5 minutes, if patient remains in distress</li> </ul> </li> </ul> </li> <li>• <b>Albuterol</b> <ul style="list-style-type: none"> <li>○ <b>Patient less than 30 kg</b> <ul style="list-style-type: none"> <li>• Nebulizer – 2.5 mg/3 mL               <ul style="list-style-type: none"> <li>○ Repeat as needed</li> </ul> </li> </ul> </li> <li>○ <b>Patient greater than 30 kg</b> <ul style="list-style-type: none"> <li>• Nebulizer – 5 mg/6 mL               <ul style="list-style-type: none"> <li>○ Repeat as needed</li> </ul> </li> </ul> </li> </ul> </li> <li>• Establish IV/IO and make BHC in anticipation of push dose epi orders</li> </ul> <p>Suspected Croup</p> <ul style="list-style-type: none"> <li>• <b>Normal Saline</b> <ul style="list-style-type: none"> <li>○ Nebulizer/Aerosolized Mask – 5 mL</li> </ul> </li> </ul> <p>If hypotensive, consider alternative etiologies and refer to additional treatment protocols</p>
<b>Base Hospital Orders only</b>	
<p>Severe Distress, not improving with prior epinephrine administration</p> <ul style="list-style-type: none"> <li>• <b>Epinephrine 10 mcg/mL</b> <ul style="list-style-type: none"> <li>○ 1 mL (10 mcg) q 2 minutes, slow IV/IO push</li> <li>○ Titrate to overall improvement in work of breathing</li> </ul> </li> </ul>	<p>Suspected Croup and no improvement with Normal Saline nebulizer</p> <ul style="list-style-type: none"> <li>• Less than 30 kg               <ul style="list-style-type: none"> <li>○ <b>Epinephrine 1mg/mL</b> <ul style="list-style-type: none"> <li>• Nebulizer/Aerosolized Mask – 2.5 mg/2.5mL</li> </ul> </li> </ul> </li> <li>• 30 kg and greater               <ul style="list-style-type: none"> <li>○ <b>Epinephrine 1mg/mL</b> <ul style="list-style-type: none"> <li>• Nebulizer/Aerosolized Mask – 5mg/5 mL</li> </ul> </li> </ul> </li> </ul> <p>Severe Distress, not improving with prior epinephrine administration</p> <ul style="list-style-type: none"> <li>• <b>Epinephrine 10mcg/mL</b> <ul style="list-style-type: none"> <li>○ 0.1mL/kg (1mcg/kg) every 2 minutes, slow IV/IO push</li> <li>○ Max single dose of 1mL or 10mcg</li> <li>○ Titrate to SBP of greater than or equal to 80 mm/Hg</li> </ul> </li> </ul>
Consult with ED Physician for further treatment measures	
<p>Additional Information:</p> <ul style="list-style-type: none"> <li>• Refer to VCEMS Policy 735 for additional information on preparing push dose epinephrine solution.</li> <li>• Use of a metered dose inhaler (Albuterol 90 mcg/puff) is indicated for fireline paramedics, in accordance with VCEMS Policy 627.</li> <li>• High flow O<sub>2</sub> is indicated for severe respiratory distress, even with a history of COPD</li> <li>• COPD patients have a higher susceptibility to spontaneous pneumothorax due to disease process</li> <li>• If suspected Arterial Gas Embolus/Decompression Sickness secondary to SCUBA emergencies, transport patient in supine position on 15L/min O<sub>2</sub> via mask. Early BH contact is recommended to determine most appropriate transport destination.</li> </ul>	

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VCEMS Medical Director

<b>Supraventricular Tachycardia</b>	
<b>ADULT</b>	<b>PEDIATRIC</b>
<b>BLS Procedures</b>	
Administer oxygen as indicated	
<b>ALS Standing Orders</b>	
Valsalva maneuver IV/IO access <u>Stable</u> – Mild to moderate chest pain/SOB <u>Unstable</u> – ALOC, signs of shock or CHF <ul style="list-style-type: none"> <li>Place on backboard and prepare for synchronized cardioversion</li> </ul>	Valsalva maneuver IV/IO access <u>Stable</u> – Mild to moderate chest pain/SOB <u>Unstable</u> – ALOC, signs of shock or CHF <ul style="list-style-type: none"> <li>Place on backboard and prepare for synchronized cardioversion</li> </ul>
<b>Communication Failure Protocol</b>	
<u>Stable</u> <ul style="list-style-type: none"> <li><b>Adenosine</b> <ul style="list-style-type: none"> <li>IV/IO – 6 mg rapid push immediately followed by 10-20 mL NS flush</li> </ul> </li> </ul> No conversion or rate control <ul style="list-style-type: none"> <li><b>Adenosine</b> <ul style="list-style-type: none"> <li>IV/IO – 12 mg rapid push immediately followed by 10-20 mL NS flush</li> </ul> </li> </ul> May repeat x 1 if no conversion or rate control <u>Unstable</u> <ul style="list-style-type: none"> <li><b>Synchronized Cardioversion</b> <ul style="list-style-type: none"> <li>Use the biphasic energy settings that have been approved by service provider medical director.</li> <li>Consider BHC for sedation (midazolam IV/IO 2mg) prior to cardioversion for special circumstances</li> </ul> </li> </ul>	<u>Stable</u> <ul style="list-style-type: none"> <li><b>Adenosine</b> <ul style="list-style-type: none"> <li>IV/IO – 0.1 mg/kg (max dose 6 mg) rapid push immediately followed by 10-20 mL NS flush</li> </ul> </li> </ul> No conversion or rate control <ul style="list-style-type: none"> <li><b>Adenosine</b> <ul style="list-style-type: none"> <li>IV/IO – 0.2 mg/kg (max dose 12 mg) rapid push immediately followed by 10-20 mL NS flush</li> </ul> </li> </ul> May repeat x 1 if no conversion or rate control <u>Unstable</u> <ul style="list-style-type: none"> <li><b>Synchronized Cardioversion</b> <ul style="list-style-type: none"> <li>Use the biphasic energy settings that have been approved by service provider medical director.</li> </ul> </li> </ul>
<b>Base Hospital Orders only</b>	
Consult with ED Physician for further treatment measure	
Additional Information: <ul style="list-style-type: none"> <li>Adenosine is contraindicated in patients with history of 2° or 3rd° AV Block, Sick Sinus Syndrome (except in patient with functioning pacemaker), or known hypersensitivity to adenosine.</li> <li>Unless the patient is in moderate or severe distress, consider IV access and transport only. Consider withholding adenosine administration if patient is stable until ED Physician evaluation.</li> <li>Prior to administering Adenosine in pediatric patients, evaluate for possible underlying causes of tachycardia (infection, dehydration, trauma, etc.)</li> <li>Document all ECG strips during adenosine administration and/or synchronized cardioversion.</li> <li>Special circumstances for sedation prior to cardioversion includes, but is not limited to: Fully awake and alert, but with unstable vital signs</li> </ul>	

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Next Review Date: August 31, 2020

Date Revised: August 9, 2018  
Last Reviewed: August 9, 2018



VCEMS Medical Director

<b>Symptomatic Bradycardia</b>	
<b>ADULT (HR less than 45 bpm)</b>	<b>PEDIATRIC (HR less than 60 bpm)</b>
<b>BLS Procedures</b>	
Administer oxygen as indicated Supine position as tolerated	Administer oxygen as indicated Assist ventilations if needed If significant ALOC, initiate CPR
<b>ALS Standing Orders</b>	
<b>IV/IO access</b> <b>Obtain 12-lead ECG</b>  <b>Atropine</b> <ul style="list-style-type: none"> <li>• IV/IO – 0.5 mg (1 mg/10 mL)</li> </ul> <b>Transcutaneous Pacing (TCP)</b> <ul style="list-style-type: none"> <li>• Should be initiated only if patient has signs of hypoperfusion</li> <li>• Should be started immediately for 3° heart blocks and 2° Type 2 (Mobitz II) heart blocks</li> <li>• If pain is present during TCP                             <ul style="list-style-type: none"> <li>○ <b>Morphine</b> – per policy 705.19 - Pain Control</li> </ul> </li> </ul> <p>If patient remains hypotensive (SBP less than 90mmHg)</p> <ul style="list-style-type: none"> <li>• <b>Epinephrine 10 mcg/mL</b> <ul style="list-style-type: none"> <li>○ 1 mL (10 mcg) q 2 minutes, slow IV/IO push</li> <li>○ Titrate to SBP of greater than or equal to 90 mm/Hg</li> </ul> </li> </ul>	<b>If CPR indicated, initiate CAM and reference appropriate cardiac arrest treatment protocol</b>  <b>IV/IO access</b> <ul style="list-style-type: none"> <li>• IV/IO access only if patient in extremis</li> <li>• <b>Epinephrine 10 mcg/mL</b> <ul style="list-style-type: none"> <li>○ 0.1 mL/kg (1 mcg/kg) q 2 minutes, slow IV/IO push</li> <li>○ Max single dose of 1 mL or 10 mcg</li> <li>○ Titrate to SBP of greater than or equal to 80 mm/Hg</li> </ul> </li> </ul>
<b>Communication Failure Protocol</b>	
<b>Base Hospital Orders only</b>	
For suspected hyperkalemia <ul style="list-style-type: none"> <li>• <b>Calcium Chloride</b> <ul style="list-style-type: none"> <li>○ IV/IO – 1 g over 1 min                             <ul style="list-style-type: none"> <li>• Withhold if suspected digitalis toxicity</li> </ul> </li> </ul> </li> <li>• <b>Sodium Bicarbonate</b> <ul style="list-style-type: none"> <li>○ IV/IO – 1 mEq/kg</li> </ul> </li> </ul>	<b>Atropine</b> <ul style="list-style-type: none"> <li>• IV/IO – 0.02 mg/kg                             <ul style="list-style-type: none"> <li>○ Minimum dose – 0.1 mg</li> </ul> </li> </ul>
<b>Consult with ED Physician for further treatment measure</b>	
Additional Information <ul style="list-style-type: none"> <li>• 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)</li> <li>• Refer to VCEMS Policy 735 for additional information on preparing push dose epinephrine solution.</li> </ul>	

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Last Reviewed: January 10, 2019



VCEMS Medical Director

## Ventricular Tachycardia Sustained – Not in Arrest

### BLS Procedures

Administer oxygen as indicated

### ALS Standing Orders

IV/IO Access

Stable – Mild to moderate chest pain/SOB

- **Amiodarone**
  - IV/IOPB - 150 mg in 50mL D<sub>5</sub>W infused over 10 minutes.

Unstable – ALOC, signs of shock or CHF

- **Synchronized Cardioversion**
  - Use the biphasic energy settings that have been approved by service provider medical director
  - Consider sedation (midazolam IV/IO 2mg) prior to cardioversion for special circumstances\*
    - For IV/IO use – Dilute 5 mg (1mL) Midazolam with 4 mL NS for a final volume of 5 mL concentration of 1 mg/mL

Unstable polymorphic (irregular) VT:

- **Defibrillation**
  - Use the biphasic energy settings that have been approved by service provider medical director

If recurrent VT, perform synchronized cardioversion at last successful biphasic energy setting

After successful cardioversion, obtain an ECG per Policy 726.

### Base Hospital Orders only

Torsades de Pointes

- **Magnesium Sulfate**
  - IV/IOPB – 2 g in 50 mL D<sub>5</sub>W infused over 5 min
    - May repeat x 1 if Torsades continues or recurs

**Consult with ED Physician for further treatment measures**

ED Physician Order Only: After defibrillation, if patient converts to narrow complex rhythm greater than 50 bpm and not in 2<sup>nd</sup> or 3<sup>rd</sup> degree heart block, and amiodarone not already given, consider amiodarone - 150 mg IV/IOPB in D<sub>5</sub>W infused over 10 minutes.

Additional Information:

- Special circumstances for sedation prior to cardioversion includes, but is not limited to:  
Fully awake and alert, but with unstable vital signs
- Early base hospital contact is recommended in unusual circumstances, e.g. Torsades de Pointes, Tricyclic OD and renal failure.
- Ventricular tachycardia (VT) is a rate greater than 150 bpm

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VCEMS Medical Director

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

# Sepsis Alert

## ADULT

### BLS Procedures

Administer oxygen as indicated

### EMS Sepsis Screening Tool

Are any 2 of the following present and new to the patient?

- Fever (Temperature >100.4) or Hot to the touch?
- Heart Rate >90/minute
- Respiratory Rate >20/min
- ALOC



If yes to above, evaluate for infection



Is the patient's history/physical exam suggestive of infection?

- Pneumonia
- Cellulitis
- Current Antibiotics
- UTI
- Wound Infection



If yes to both boxes, notify the receiving facility of a Sepsis Alert

### ALS Standing Orders

#### If Sepsis Suspected

##### IV/IO Access

- Normal Saline
  - 1 Liter Bolus

##### Additional Information

- For patients highly suspected of Sepsis, consider second IV access for fluids and administration of antibiotics upon arrival to hospital.

<b>Smoke Inhalation</b>	
<b>ADULT</b>	<b>PEDIATRIC</b>
<b>BLS Procedures</b>	
Remove individual from the environment	Remove individual from the environment
Consider gross decontamination	Consider gross decontamination
Assess ABCs	Assess ABCs
Assess for trauma and other acute medical conditions	Assess for trauma and other acute medical conditions
Administer high flow oxygen as indicated, or with evidence of smoke inhalation and ALOC or significant headache	Administer high-flow oxygen as indicated, or with evidence of smoke inhalation and ALOC or significant headache
<b>ALS Standing Orders</b>	
Airway support in accordance with Policy 710 – Airway Management	Airway support in accordance with Policy 710 – Airway Management
IV/IO access as indicated	IV/IO access as indicated
If Wheezes present	If Wheezes present
<ul style="list-style-type: none"> <li>• <b>Albuterol</b> <ul style="list-style-type: none"> <li>○ Nebulizer – 5 mg/6 mL                             <ul style="list-style-type: none"> <li>▪ Repeat as needed</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Albuterol</b> <ul style="list-style-type: none"> <li>○ <b>Patient less than 30 kg</b> <ul style="list-style-type: none"> <li>• Nebulizer – 2.5 mg/3 mL                                     <ul style="list-style-type: none"> <li>○ Repeat as needed</li> </ul> </li> </ul> </li> <li>○ <b>Patient greater than 30 kg</b> <ul style="list-style-type: none"> <li>• Nebulizer – 5 mg/6 mL                                     <ul style="list-style-type: none"> <li>○ Repeat as needed</li> </ul> </li> </ul> </li> </ul> </li> </ul>
If smoke inhalation AND unconscious or ALOC	If smoke inhalation AND unconscious or ALOC
<ul style="list-style-type: none"> <li>• <b>Hydroxocobalamin – If Available</b> <ul style="list-style-type: none"> <li>○ IV/IO – 5 g in 200 mL NS over 15 minutes</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Hydroxocobalamin – If Available</b> <ul style="list-style-type: none"> <li>○ IV/IO – 70 mg/kg to a max of 5 g in 200 mL NS over 15 minutes</li> </ul> </li> </ul>
<b>Base Hospital Orders only</b>	
Continued unconscious/ALOC OR poor response to initial dose	Continued unconscious/ALOC OR poor response to initial dose
<ul style="list-style-type: none"> <li>• <b>Hydroxocobalamin</b> <ul style="list-style-type: none"> <li>○ IV/IO – 5 g in 200 mL NS over 15 to 120 minutes, depending on clinical presentation.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Hydroxocobalamin</b> <ul style="list-style-type: none"> <li>○ IV/IO – 70 mg/kg to a max of 5 g in 200 mL NS over 15 to 120 minutes, depending on clinical presentation.</li> </ul> </li> </ul>
Consult with ED Physician for further treatment measures.	Consult with ED Physician for further treatment measures.
<p>Additional Information:</p> <ul style="list-style-type: none"> <li>• If monitoring equipment is available, the patient’s carboxyhemoglobin levels should be checked if smoke inhalation is suspected.</li> <li>• Evidence of smoke inhalation includes soot around mouth and/or nares, increased work of breathing, wheezing</li> <li>• If additional IV/IO medications are indicated, establish a second IV or IO. DO NOT administer other medications with hydroxocobalamin through the same IV/IO line.</li> <li>• DO NOT administer hydroxocobalamin if patient has a known allergy to hydroxocobalamin or cyanocobalamin</li> </ul>	

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 VCEMS Medical Director