County of Ventura
Department of Public Health

Notice of Changes to Policy Manual

Emergency Medical Services
Policies and Procedures

To: ALL VENTURA COUNTY EMS POLICY MANUAL HOLDERS
DATE: October 28, 2020

Policy Status	Policy #	Title/New Title	Notes
Replace	0400	Ventura County Emergency Departments	Updated Ojai hospital and specialty care designations for each facility.
Replace	0504	ALS and BLS Equipment and Supplies	Added iGel, updated Dextrose
Replace	0605	Interfacility Transfer of Patients	Added language regarding ambulance personnel call receiving facility.
Replace	0626	CHEMPACK Deployment	Updated policy to reflect current medication counts and change from CDC to ASPR.
Replace	0705	Treatment Protocols Cover	Added 705.29 to table of contents
Replace	705.02	Allergic Reaction / Anaphylaxis	Benadryl limited to ≥ 6 months
Replace	705.03	Altered Neurologic Function	D5 & D25 removed. D50 removed from pediatrics, will remain for adults until current supply is used.
Replace	705.04	Behavioral Emergencies	IV/IO Midazolam route added for pediatrics
Replace	705.08	Cardiac Arrest VF-VT	Standardized Joules dosing, pediatric Amio changed to 5 mg/kg x 3, MgSO4 for pediatrics updated to 50 mg/kg.
Replace	705.11	Crush Injury	All moved to standing orders, Comm failure removed
Replace	705.15	Nausea Vomiting	Zofran included down to 6 months
Replace	705.17	Nerve Agent / Organophosphate Poisoning	IV/IO Midazolam route added for pediatrics
Replace	705.18	Overdose	Benadryl limited to ≥ 6 months, IV/IO Midazolam route added for pediatrics, Midazolam standing order
Replace	705.19	Pain Control	Adjusted to accommodate pediatric Zofran change
Replace	705.20	Seizures	MgSO4 changed to 4g over 10 min from 2g MUST repeat IV/IO Midazolam route added for pediatrics
Replace	705.21	SOB - Pulmonary Edema	Comm Failure removed, all standing orders
Replace	705.22	SOB - Wheezes	Severe vs Mild croup differentiated Nebulized and push dose Epi standing orders
Replace	705.23	Supraventricular Tachycardia	Standardized Cardioversion Joules Dosing
Replace	705.24	Symptomatic Bradycardia	Repeat Atropine added, NS Bolus added
Replace	705.25	VTach Sustained – Not in Arrest	Standardized Cardioversion Joules Dosing MgSO4 for pediatrics updated to 50 mg/kg over 5 min
Replace	705.28	Smoke Inhalation	Smoke inhalation with cardiac arrest added as indication for Hydroxocobalamin
ADD	0737	Public Health Emergency Vaccine Administration	New policy authorizing Paramedics to administer Influenza and COVID-19 vaccine during ongoing PH Emergency.
Replace	1000	Documentation of Prehospital Care	Handtevy requirement added
Replace	1400	Trauma Care System – General Provisions	

County of Ventura
Department of Public Health

Notice of Changes to Policy Manual

Emergency Medical Services
Policies and Procedures

Policy Status	Policy #	Title/New Title	Notes
Replace	1402	Trauma Committees	Reviewed with no changes
Replace	1404	Guidelines for IFT of Patients to a Trauma Center	No changes to content of policy. Only attached existing transfer algorithm to existing policy.
Replace	1406	Trauma Center Standards	

COUNTY OF VENTURA HEALTH CARE AGENCY	POLICIES AND PROCEDURES EMERGENCY MEDICAL SERVICES
Policy Title: Ventura County Emergency Departments	Policy Number: 400
APPROVED: Administration: Steven L. Carroll, Paramedic	Date: December 1, 2020
APPROVED: Medical Director: Daniel Shepherd, MD	Date: December 1, 2020
Origination Date: October, 1984 Date Revised: August 13, 2020 Date Last Reviewed: August 13, 2020 Next Review Date: August 31, 2023	Effective Date: December 1, 2020

Base Hospitals
Basic Emergency Departments

Los Robles Regional Medical Center
215 W. Janss Road
Thousand Oaks, CA 91360
(805) 370-4435

St. John's Regional Medical Center
1600 N. Rose Avenue
Oxnard, CA 93030
(805) 988-2663

Adventist Health Simi Valley
2975 N. Sycamore Dr
Simi Valley, CA 93065
(805) 955-6100

Ventura County Medical Center
300 Hillmont Avenue
Ventura, CA 93003
(805) 652-6165

Receiving Hospitals
Basic Emergency Departments

Community Memorial Hospital
147 No. Brent Street
Ventura, CA 93003
(805) 652-5018

St. John's Pleasant Valley Hospital
2309 Antonio Avenue
Camarillo, CA 93010
(805) 389-5811

Santa Paula Hospital
825 N. 10th Street
Santa Paula, CA 93060
(805) 933-8663

Receiving Hospital
Standby Emergency Department

Ojai Valley Community Hospital
1306 Maricopa Highway
Ojai, CA 93023
(805) 640-2260

STEMI Receiving Centers
Adventist Health Simi Valley
Community Memorial Hospital
Los Robles Regional Medical Center
St. John's Regional Medical Center

Acute Stroke Centers
Adventist Health Simi Valley
Community Memorial Hospital
Los Robles Regional Medical Center
St. John's Pleasant Valley Hospital
St. John's Regional Medical Center
Ventura County Medical Center

Trauma Centers-Level II
Ventura County Medical Center
Los Robles Regional Medical Center

Thrombectomy Capable Acute Stroke Centers
St. John's Regional Medical Center
Los Robles Regional Medical Center

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: December 1, 2020
APPROVED: Medical Director	Daniel Shepherd, MD	Date: December 1, 2020
Origination Date: Date Revised: Last Reviewed: Review Date:	May 24, 1987 October 15, 2020 October 15, 2020 October 31, 2021	Effective Date: December 1, 2020

I. PURPOSE: To provide a standardized list of equipment and supplies for response and/or transport units in Ventura County.

II. POLICY: Each response and/or transport unit in Ventura County shall be equipped and supplied according to the requirements of this policy.

III. AUTHORITY: California Health and Safety Code Section 1797.178, 1797.204, 1797.218, 1797.221 and California Code of Regulations Sections 100148, 100306, 100404

IV. PROCEDURE:

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

Deviation from the standards outlined in this policy shall only be authorized with written approval (see attached Equipment/Medication Waiver Request form) from the VCEMS Medical Director. Mitigation attempts should be documented in the comment section on the waiver request form, such as what vendors were contacted, etc.

	ALS / BLS Unit Minimum Amount	PSV/CCT Minimum Amount	FR/ALS Minimum Amount	Search and Rescue Minimum Amounts
A. ALL BLS AND ALS RESPONSE AND/OR TRANSPORT UNITS				
Clear masks in the following sizes: Adult Child Infant Neonate	1 each	1 each	1 each	1 adult 1 infant
Bag valve units Adult (1,000 mL) Child (500 mL) Infant (240 mL)	1 each	1 each	1 each	1 adult
Nasal cannula Adult	3	3	3	3
Nasopharyngeal airway (adult and child or equivalent)	1 each	1 each	1 each	1 each
Continuous positive airway pressure (CPAP) device	1 per size	1 per size	1 per size	1 per size
Nerve Agent Antidote Kit	9	9	9	0
Blood glucose determination devices *(optional for non-911 BLS units)*	2	1	1	1
Oral glucose 15gm unit dose	1	1	1	1
Oropharyngeal Airways Adult Child Infant Newborn	1 each size	1 each size	1 each size	1 each size
Oxygen with appropriate adjuncts (portability required)	10 L/min for 20 minutes	10 L/min for 20 mins.	10 L/min for 20 mins.	10 L/min for 20 mins.
Portable suction equipment	1	1	1	1
Transparent oxygen masks Adult nonrebreather Child Infant	 3 3 2	 2 2 2	 2 2 2	 2 2 2
Bandage scissors	1	1	1	1
Bandages • 4"x4" sterile compresses or equivalent • 2",3",4" or 6" roller bandages • 10"x 30" or larger dressing	 12 6	 12 2 0	 12 6 2	 5 4 2
Blood pressure cuffs Thigh Adult Child Infant	 1 1 1 1	 1 1 1 1	 1 1 1 1	1 1 1 1
Emesis basin/bag	1	1	1	1
Flashlight	1	1	1	1
Traction splint or equivalent device	1	1	1	1
Pneumatic or rigid splints (capable of splinting all extremities)	4	4	4	4
Potable water or saline solution	4 liters	4 liters	4 liters	4 liters
Cervical spine immobilization device	2	2	2	2
Spinal immobilization devices				

	ALS / BLS Unit Minimum Amount	PSV/CCT Minimum Amount	FR/ALS Minimum Amount	Search and Rescue Minimum Amounts
KED or equivalent	1	1	1	1
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
OPTIONAL EQUIPMENT				
Occlusive dressing or chest seal				
Hemostatic gauze per EMSA guidelines				
B. TRANSPORT UNIT REQUIREMENTS				
Ambulance cot and collapsible stretcher; or two stretchers, one of which is collapsible.	1	0	0	1
Straps to secure the patient to the stretcher or ambulance cot, and means of securing the stretcher or ambulance cot in the vehicle.	1 Set	0	0	1 Set
Soft Ankle and wrist restraints.	1	0	0	0
Sheets, pillow cases, blankets and towels for each stretcher or ambulance cot, and two pillows for each ambulance	1	0	0	0
Bedpan	1	0	0	0
Urinal	1	0	0	0

	ALS / BLS Unit Minimum Amount	PSV/CCT Minimum Amount	FR/ALS Minimum Amount	Search and Rescue Minimum Amounts
C. ALS UNIT REQUIREMENTS				
Cellular telephone	1	1	1	1
Supraglottic Airway Devices: I-Gel with passive oxygenation port Sizes 1, 1.5, 2, 2.5, 3, 4, 5	2 of each	1 of each	1 of each	1 of each
I-Gel Airway Support Straps	2	2	2	2
Arm Boards 9” 18”	 3 3	 0 0	 1 1	 0 0
Cardiac and waveform capnography monitoring equipment	1	1	1	1
CO_2 monitor Infant (<0.5 mL sidestream or <1 mL mainstream adaptor) Pediatric / Adult (6.6 mL sidestream or < 5 mL mainstream adaptor)	2 of each	2 of each	2 of each	2 of each
Colorimetric CO2 Detector Device	1	1	1	1
Defibrillator pads or gel	3	3	3	1 adult – No Peds.
Defibrillator w/adult and pediatric paddles/pads	1	1	1	1
EKG Electrodes	10 sets	3 sets	3 sets	6 sets
Endotracheal intubation tubes, sizes 6.0, 6.5, 7.0, 7.5, 8.0 with stylets	1 of each size	1 of each size	1 of each size	4, 5, 6, 6.5, 7, 7.5, 8
EZ-IO intraosseous infusion system	1 Each Size	1 Each Size	1 Each Size	1 Each Size
Intravenous Fluids (in flexible containers) • Normal saline solution, 100 ml • Normal saline solution, 500 ml • Normal saline solution, 1000 ml	 2 2 6	 1 1 2	 1 1 4	 1 1 3
IV admin set - macrodrip	4	1	4	3
IV catheter, Sizes l4, l6, l8, 20, 22, 24	6 each 14, 16, 18, 20 3 each 22 3 each 24	2 each	2 each	2 each
Laryngoscope, replacement bulbs and batteries Curved blade #2, 3, 4 Straight blade #1, 2, 3	1 set 1 each 1 each	1 set 1 each 1 each	1 set 1 each 1 each	1 set 1 each 1 each
Magill forceps Adult Pediatric	 1 1	 1 1	 1 1	 1 1
Intranasal mucosal atomization device	2	2	2	2
Nebulizer	2	2	2	2
Nebulizer with in-line adapter	1	1	1	1
Needle Thoracostomy kit	2	2	2	2
Pediatric length and weight tape	1	1	1	1
SpO_2 Monitor (If not attached to cardiac monitor)	1	1	1	1
OPTIONAL ALS EQUIPMENT (No minimums apply)				
Flexible intubation stylet				
Cyanide Antidote Kit				

	BLS Unit Minimum Amount	ALS Unit Minimum Amount	PSV/CCT Minimum Amount	FR/ALS Minimum Amount	Search and Rescue Minimum Amounts
D. MEDICATION, MINIMUM AMOUNT					
Adenosine, 6 mg		3	3	3	3
Albuterol 2.5mg/3ml		6	2	3	1
Aspirin, 81mg		4 ea 81 mg	4 ea 81 mg	4 ea 81 mg	4 ea 81 mg
Amiodarone, 50mg/ml 3ml		6	3	6	3
Atropine sulfate, 1 mg/10 ml		2	2	2	2
Diphenhydramine (Benadryl), 50 mg/ml		2	1	1	2
Calcium chloride, 1000 mg/10 ml		2	1	1	1
Dextrose					
• 5% 50ml, AND		2	1	2	1
• 10% 250 ml, OR		5	2	2	2
• 50%, 25 GM/50		2	1	2	1
Epinephrine					
• Epinephrine , 1mg/ml	2	5	5	5	5
• 1 mL ampule / vial, OR	2	4	2	2	2
• Adult auto-injector (0.3 mg), AND Peds auto-injector (0.15 mg)	2	4	2	2	2
• Epinephrine 0.1mg/ml (1 mg/10ml preparation)		6	3	6	4
Fentanyl, 50 mcg/mL		2	2	2	2
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 (Only required during a Fentanyl shortage)		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: Interfacility Transfer of Patients		Policy Number 605
APPROVED: Administration:	Steven L. Carroll, Paramedic	Date: December 1, 2020
APPROVED: Medical Director:	Daniel Shepherd, M.D.	Date: December 1, 2020
Origination Date: Date Revised: Date Last Reviewed: Next Review Date:	July 26, 1991 October 15, 2020 October 15, 2020 October 31, 2022	Effective Date: December 1, 2020

I. PURPOSE: To define levels of interfacility transfer and to assure that patients requiring interfacility transfer are accompanied by personnel capable and authorized to provide care.

II. AUTHORITY: Health and Safety Code, Sections 1797.218, 1797.220, and 1798.

III. POLICY: A patient shall be transferred according to his/her medical condition and accompanied by EMS personnel whose training meets the medical needs of the patient during interfacility transfer. The transferring physician shall be responsible for determining the medical need for transfer and for arranging the transfer. The patient shall not be transferred to another facility until the receiving hospital and physician consent to accept the patient. The transferring physician retains responsibility for the patient until care is assumed at the receiving hospital.

If a patient requires care during an interfacility transfer which is beyond the scope of practice of an EMT or paramedic or requires specialized equipment for which an EMT or paramedic is untrained or unauthorized to operate, and it is medically necessary to transfer the patient, a registered nurse or physician shall accompany the patient. If a registered nurse accompanies the patient, appropriate orders for care during the transfer shall be written by the transferring physician.

IV. TRANSFER RESPONSIBILITIES

A. All Hospitals shall:

1. Establish their own written transfer policy clearly defining administrative and professional responsibilities.
2. Have written transfer agreements with hospitals with specialty services, and county hospitals.

B. Transferring Hospital

1. Maintains responsibility for patient until patient care is assumed at receiving facility.

2. Assures that an appropriate vehicle, equipment and level of personnel is used in the transfer.

C. Transferring Physician

1. Maintains responsibility for patient until patient care is assumed at receiving facility.
2. Determines level of medical assistance to be provided for the patient during transfer.
3. Receives confirmation from the receiving physician and receiving hospital that appropriate diagnostic and/or treatment services are available to treat the patient's condition and that appropriate space, equipment and personnel are available prior to the transfer.

D. Receiving Physician

1. Makes suitable arrangements for the care of the patient at the receiving hospital.
2. Determines and confirms that appropriate diagnostic and/or treatment services are available to treat the patient's condition and that appropriate space, equipment and personnel are available prior to the transfer, in conjunction with the transferring physician.

E. Transportation Provider

1. The patient being transferred must be provided with appropriate medical care, including qualified personnel and appropriate equipment, throughout the transfer process. The personnel and equipment provided by the transporting agency shall comply with local EMS agency protocols.
2. Interfacility transport within the jurisdiction of VC EMS shall be performed by an ALS or BLS ambulance.
    a. BLS transfers shall be done in accordance with EMT Scope of Practice per Policy 300
    b. ALS transfers shall be done in accordance with Paramedic Scope of Practice per Policy 310

IV. PROCEDURE:

A. Non-Emergency Transfers

Non-emergency transfers shall be transported in a manner which allows the provider to comply with response time requirements.

B. Emergency Transfers

Emergency transfers require documentation by the transferring hospital that the condition of the patient medically necessitates emergency transfer. Provider agency dispatchers shall confirm that this need exists when transferring hospital personnel make the request for the transfer.

C. Transferring process

1. The transferring physician will determine the patient's resource requirements and request an inter-facility ALS, or BLS transfer unit using the following guidelines:

Patient Condition/Treatment	EMT	Paramedic	RN/RT/MD
a. Vital signs stable	x		
b. Oxygen by mask or cannula	x		
c. Peripheral IV glucose or isotonic balanced salt solutions running	x		
d. Continuous respiratory assistance needed (paramedic scope management)		x	
e. Peripheral IV medications running or anticipated (paramedic scope)		x	
f. Paramedic level interventions		x	
g. Central IV line in place		x	
h. Respiratory assistance needed (outside paramedic scope of practice)			x
i. IV Medications (outside paramedic scope of practice)			x
j. PA line in place			x
k. Arterial line in place			x
l. Temporary pacemaker in place			x
m. ICP line in place			x
n. IABP in place			x
o. Chest tube		x	
p. IV Pump		x	
q. Standing Orders Written by Transferring Facility MD			x
r. Medical interventions planned or anticipated (outside paramedic scope of practice)			x

2. The transferring hospital advises the provider of the following:

a. Patient's name

b. Diagnosis/level of acuity

c. Destination

d. Transfer date and time

e. Unit/Department transferring the patient

f. Special equipment with patient

g. Hospital personnel attending patient

h. Patient medications

3. The transferring physician and nurse will complete documentation of the medical record. All test results, X-ray, and other patient data, as well as all pertinent transfer forms, will be copied and sent with the patient at the time of transfer. If data are not available at the time of transfer, such data will be telephoned to the transfer liaison at the receiving facility and then sent by FAX or mail as soon thereafter as possible.
4. Upon departure, the Transferring Facility will call the Receiving Facility and confirm arrangements for receiving the patient and provide an estimated time of arrival (ETA).
5. The Transferring Facility will provide:
    a. A verbal report appropriate for patient condition
    b. Review of written orders, including DNAR status.
    c. A completed transfer form from Transferring Facility.

V. COMMUNICATION

A. For patients with time sensitive conditions requiring transfer for emergency evaluation and/or treatment (i.e. STEMI, Stroke, Trauma, etc.) the ambulance personnel will contact the receiving facility advising of ETA and any change in patient condition. The intent is to provide the receiving facility with information for appropriate resources to be initiated.

VI. DOCUMENTATION

A. Documentation of Care for Interfacility transfers will be done in accordance to Policy 1000.

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: CHEMPACK Deployment		Policy Number 626
APPROVED: Administration:	Steven L. Carroll, Paramedic	Date: December 1, 2020
APPROVED: Medical Director:	Daniel Shepherd, MD	Date: December 1, 2020
Origination Date: Date Revised: Date Last Reviewed: Review Date:	February 2, 2010 August 13, 2020 August 13, 2020 August 31, 2022	Effective Date: December 1, 2020

I. PURPOSE: This policy establishes guidelines for the deployment and use of the CHEMPACK by pre-hospital care providers in response to incidents involving suspected nerve agent exposure.

II. AUTHORITY: Health and Safety Code, Division 2.5, Sections 1797.220 & 1798.

III. DEFINITION: The Assistant Secretary for Preparedness and Response (ASPR) has established the "CHEMPACK" project for the forward placement of sustainable repositories of nerve agent antidotes in numerous locations throughout the United States, so that they can be immediately accessible for the treatment of exposed and affected persons.

There are two types of CHEMPACKs available. The "Hospital CHEMPACK" is designed for hospital and healthcare provider use, consisting mostly of single dose vials and a small quantity of auto-injectors. The "EMS CHEMPACK" is designed for field use and contains mostly auto-injectors. Ventura County has elected to only host EMS CHEMPACKs.

Content of CHEMPACKs			
Unit Pack	**Units**	**Cases**	**Quantity**
Pralidoxime 300 mg Auto-Injector	240	5	1200
Atropine Sulfate 0.4 mg/ml 20 ml	100	1	100
Pralidoxime 1 Gm inj. 20 ml	276	1	276
Atropen 0.5 mg	144	1	144
Atropen 1.0 mg	144	1	144
Atropen 2 mg	136	5	680

Diazepam 5 mg/ml auto-injector	150	2	300
Midazolam 5mg/mL vial, 10mL	50	1	50
Sterile water for inj (SWFI) 20cc vials	100	2	200
Sensaphone®2050	1	1	1
Satco B DEA Container	1	1	1

IV. POLICY: Actual location of the CHEMPACK will be maintained as confidential. This policy outlines the responsibilities and the operational requirements to pre-position or utilize a cache within the Ventura County Operational Area.

In the case of an accidental or deliberate release of a nerve agent or potent organophosphate compound, time will be of the essence to minimize morbidity and mortality. This is a key consideration in cache placement, notification, transportation and administration.

V. PROCEDURE: CHEMPACK Deployment and Movement

A. Authorization to Open or Forward Deploy a CHEMPACK Container – Emergency Incident Based:

1. The Ventura County EMS Agency shall be contacted for authorization to open or forward deploy any CHEMPACK within the Ventura County Operational Area. The EMS Agency Duty Officer can be accessed on a 24-hour basis by calling the Ventura County Fire Department Fire Communications Center at 805-388-4279.
2. In the event that return contact by the EMS Agency Duty Officer is delayed and the situation clearly warrants immediate action, the CHEMPACK provider may elect to open or forward deploy the CHEMPACK for an emergency incident. Attempts to contact the EMS Agency Duty Officer shall be made in all cases through the Fire Communications Center.
3. The EMS Agency may request deployment of a CHEMPACK to a location within the Ventura County Operational Area or outside the operational area under a medical-health mutual aid request. The CHEMPACK provider shall make CHEMPACK resources immediately available upon request by the EMS Agency.
4. The EMS Agency shall immediately notify the Region 1 Regional Disaster Medical Health Specialist (RDMHS) of any CHEMPACK movement from

fixed locations or opening of a CHEMPACK container. The RDMHS will ensure that California Department of Health Services / Emergency Preparedness Office (DHS/EPO) is notified promptly of any movement or deployment of CHEMPACK material. DHS/EPO will in turn notify ASPR.

5. Qualifying Events – Emergency Deployment: CHEMPACK material may be accessed, deployed or used only when it is determined that an accidental or intentional nerve agent or other organophosphate release has threatened the public health security of a community. A seal will be broken and material used only when it is determined that other means to save human life will not be sufficient. Authorization to deploy, break the seal on, or move a CHEMPACK container from its specified location will be limited to any of the following events:
    a. Release of a nerve agent or potent organophosphate with human effects or immediate threats too great to adequately manage with other pharmaceutical supplies available.
    b. Large or unusual occurrence of patients presenting with signs and/or symptoms consistent with nerve agent or organophosphate exposure or intoxication.
    c. A credible threat of an imminent event of a magnitude likely to require the assets of the CHEMPACK.
    d. An event with potential to create a nerve agent or organophosphate release with human exposure (e.g. a transportation accident with fire or loss of container integrity).
    e. Any mutual aid request from another region or neighboring state in which CHEMPACK assets are being deployed or staged.
    f. Any event which, in the judgment of the County Health Officer, EMS Agency Medical Director, or Medical & Health Operational Area Coordinator (MHOAC), justifies the deployment of CHEMPACK supplies.
    g. A physical threat to the CHEMPACK at the fixed location (i.e. fire, theft, flood).

B. Authorization to Forward Deploy a CHEMPACK Container – Event or Threat Planning:

1. The EMS Agency may authorize movement of a CHEMPACK container and contents to any location within the Ventura County Operational Area, or outside the area under a medical-health mutual aid request. The EMS Agency will notify the Region 1 RDMHS in advance of any pre-planned CHEMPACK container movement for a particular event or threat.
2. Qualifying Events – Pre-Emptive Deployment: Pre-emptive movement is the relocation of a sealed CHEMPACK container and its contents to a site providing for levels of environmental and security controls generally identical to those required for its regular placement site. Breaking the seal, removing any contents, or moving the cache to a location without those controls constitutes deployment, not pre-emptive movement, and must meet deployment conditions.
    a. Pre-emptive movements may be requested to the EMS Agency by any emergency medical, public health, emergency management, hazardous materials or other related agency in preparation for, or response to, a planned or occurring event deemed appropriate for forward CHEMPACK placement.
    b. Any such request must be made to the RDMHS for approval. Unless an imminent or ongoing emergency, each request must be made at least 48 hours before the movement. The RDMHS will refer any request to the RDMHC and to DHS/EPO for consideration. If an RDMHS is unavailable to take timely action on a movement request, that request may be made to DHS/EPO via the State Warning Center.

C. Post Event Actions:

1. Incident documentation should begin as soon as possible following any emergency operation involving CHEMPACK assets by the EMS Agency. The documentation must include the following:
    a. A thorough description of the incident or event involving CHEMPACK resources.
    b. A list of the approving officials.
    c. An inventory of used and unused CHEMPACK contents.
    d. An after-action critique of CHEMPACK deployment effectiveness.

2. The CHEMPACK container and any unused contents will be returned to the CHEMPACK Provider and will be resealed. The EMS Agency will coordinate resupply with the Region 1 RDMHS, DHS/EPO and the ASPR as appropriate. Currently the CHEMPACK Project is not funded to replace CHEMPACK supplies used for an emergency event. However, requests for replenishment of CHEMPACK supplies should be made to the SNS Program as soon as possible after their use. The SNS Program will attempt to secure federal funding to replace and restock supplies used in response to an emergency event

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: December 1, 2020
Origination Date: Date Revised: Date Last Revised: Review Date:	January 1988 See individual algorithms See individual algorithms See individual algorithms	Effective Date: As indicated on individual algorithms

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

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

A. DEFINITIONS:

1. Unless otherwise specified in an individual treatment protocol or policy, the following definitions shall apply:
   a. Adult: Age 14 or greater (14th birthday and older)
   b. Pediatric: Age less than 14 (up to 14th birthday)

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

1. Policy 603: Refusal of EMS Services
2. Policy 606: Withholding or Termination of Resuscitation and Determination of Death
3. Policy 705.14: Hypovolemic Shock
4. Policy 710: Airway Management
5. Policy 717: Intraosseous Infusion
6. Policy 734: Tranexamic Acid Administration
7. Policy 1405: Trauma Triage and Destination Criteria

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

Allergic Reaction and Anaphylaxis

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

ADULT	PEDIATRIC
IV/IO access Allergic Reaction: **Benadryl** o IV/IO/IM – 50 mg	IV/IO Access Allergic Reaction: For patients ≥ 6 months of age **Benadryl** o IV/IO/IM – 1 mg/kg o Max 50 mg
Anaphylaxis without shock: **Epinephrine 1 mg/mL**, if not already administered by BLS personnel o IM - 0.3 mg o May repeat in 5 minutes if patient remains in distress **Albuterol (if wheezing is present)** o Nebulizer – 5 mg/6 mL o May repeat as needed Anaphylaxis with Shock: **Epinephrine 10mcg/mL** o 1mL (10mcg) every 2 minutes, slow IV/IO push o Titrate to SBP of greater than or equal to 90mm/Hg • Initiate 2nd IV/IO **Normal Saline** o IV/IO bolus – 1 Liter o May repeat x 1 as indicated	Anaphylaxis without Shock: **Epinephrine 1 mg/mL,** if not already administered by BLS personnel o IM – 0.01 mg/kg up to 0.3mg o May repeat q 5 minutes, if patient remains in distress **Albuterol (if wheezing is present)** • Patient ≤ 30 kg o Nebulizer – 2.5 mg/3 mL o Repeat as needed • Patient > 30kg o Nebulizer – 5 mg/6 Ml o Repeat as needed Anaphylaxis with Shock: **Epinephrine 10mcg/mL** o 0.1mL/kg (1mcg/kg) every 2 minutes, slow IV/IO push o Max single dose of 1mL or 10mcg o Titrate to SBP of greater than or equal to 80 mm/Hg • Initiate 2nd IV if possible or establish IO **Normal Saline** o IV/IO bolus – 20 mL/kg o 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: December 1, 2020
Next Review Date: October 31, 2022
Date Revised: October 26, 2020
Last Reviewed: October 26, 2020

VCEMS Medical Director

Altered Neurologic Function

BLS Procedures

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

- **Oral Glucose –** patient must be awake and able to swallow with a gag reflex intact
  - PO 15 g

** Treat as above if you have clinical suspicion of hypoglycemia and are unable to obtain glucose level due to glucometer malfunction or error reading.*

ALS Prior to Base Hospital Contact

ADULT

IV/IO Access

Determine Blood Glucose level, if not already performed by BLS personnel or post oral glucose administration

If less than 60 mg/dl

- **D10W - Preferred**
  - IV/IOPB-100 mL (10 g)-Rapid Infusion
- **D50W**
  - IV/IO – 25 mL (12.5 g)
- **Glucagon** (If no IV access)
  - IM – 1 mg

Recheck Blood Glucose level 5 min after Dextrose, or 10 min after Glucagon administration

If still less than60 mg/dl

- **D10W - Preferred**
  - IV/IOPB-150 mL (15 g)-Rapid Infusion
- **D50W**
  - IV/IO – 25 mL (12.5 g)

** Treat as above if you have clinical suspicion of hypoglycemia and are unable to obtain glucose level due to glucometer malfunction or error reading.*

PEDIATRIC

IV/IO Access

Determine Blood Glucose level, if not already performed by BLS personnel or post oral glucose administration

If less than 60 mg/dl

- **D10W -**
  - IV/IOPB-5 mL/kg-Rapid Infusion
  - Max 100 mL
- **Glucagon** (If no IV/IO access)
  - IM – 0.1 mL/kg
  - Max 1 mg

Recheck Blood Glucose level 5 min after Dextrose or 10 min after Glucagon administration

If still less than 60 mg/dl

- **D10W -**
  - IV/IOPB-7.5 mL/kg-Rapid Infusion
  - Max 150 mL

** Treat as above if you have clinical suspicion of hypoglycemia and are unable to obtain glucose level due to glucometer malfunction or error reading.*

Base Hospital Orders only

Consult with ED Physician for further treatment measures

Additional Information:

- 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.
- If patient has an ALOC and Blood Glucose level is greater than 60 mg/dl, consider alternate causes:

A - Alcohol	**O - Overdose**	**I - Infection**
E - Epilepsy	**U - Uremia**	**P - Psychiatric**
I - Insulin	**T - Trauma**	**S – Stroke**

Effective Date: December 1, 2020
Next Review Date: October 31, 2022
Date Revised: October 26, 2020
Last Reviewed: October 26, 2020

VCEMS Medical Director

Behavioral Emergencies

ADULT	PEDIATRIC
ALS Prior to Base Hospital Contact	
IV/IO Access For Extreme Agitation • **Midazolam** o IM – 5mg or 10 mg (5mg/ml) o IV/IO – 2 mg • Repeat 1 mg q 2 min as needed • Max 5 mg When safe to perform, determine blood glucose level	IV/IO Access For Extreme Agitation • **Midazolam** o IM – 0.1 mg/kg • Max 5 mg o IV/IO – 0.1 mg/kg • Repeat q 2 min as needed • Max single dose 2 mg • Max total dose 5 mg When safe to perform, determine blood glucose level
Base Hospital Orders only	
Consult with ED Physician for further treatment measures	

Additional Information:

- 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.
- 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).
- Use of restraints (physical or chemical) shall be documented and monitored in accordance with VCEMS policy 732
- Welfare and Institutions Code Section 5585:
  - 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.
- Welfare and Institutions Code Section 5150:
  - 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.
- All patients shall be transported to the most accessible Emergency Department for medical clearance prior to admission to a psychiatric facility

Ventura County Mental Health Crisis Team: (866) 998-2243

Effective Date: December 1, 2020
Next Review Date: October 31, 2022

Date Revised: October 8, 2020
Last Reviewed: October 8, 2020

VCEMS Medical Director

Cardiac Arrest – VF/VT

BLS Procedures

Initiate Cardiac Arrest Management (CAM) Protocol
Airway management per VCEMS policy

ALS Standing Orders

ADULT

Defibrillate
- Defibrillate q 2 minutes as indicated
  - Lifepak 360 Joules
  - Zoll 200 Joules

IV or IO access & PRESTO Blood draw

Epinephrine* 0.1 mg/mL
Administer ASAP goal ≤6 minutes
- IV/IO –1 mg (10 mL) q 6min
- Repeat x 2 for max of 3 doses during initial arrest.
- If ROSC then re-arrest an additional 3 doses may be administered.

Amiodarone
- IV/IO – 300 mg – after second defibrillation
- If VT/VF persists, 150 mg IV/IO in 3-5 minutes

Normal Saline
- IV/IO bolus 1 Liter

ALS Airway Management
- If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures in accordance with policy 710.

When Torsades de Pointes is identified:
- **Magnesium Sulfate**
  - IV/IO – 2 g over 2 min
  - Repeat x 1 in 5 min

Treat underlying causes when identified:
Renal Failure / History of Dialysis:
- **Calcium Chloride**
- IV/IO – 1g
- Repeat x 1 in 10 min
- **Sodium Bicarbonate**
  - IV/IO – 1 mEq/kg
  - Repeat 0.5 mEq/kg x 2 q 5 min

Tricyclic Antidepressant Overdose:
- **Sodium Bicarbonate**
  - IV/IO – 1 mEq/kg
  - Repeat 0.5 mEq/kg x 2 q 5 min

PEDIATRIC

Defibrillate
- Defibrillate q 2 minutes as indicated using escalating joules doses
  - 2, 4, 6, 8 joules/kg

IV or IO access & PRESTO Blood Draw

Epinephrine* 0.1mg/mL
Administer ASAP goal ≤ 6 minutes
- IV/IO – 0.01mg/kg (0.1 mL/kg) q 6 min
- Repeat x 2 for max of 3 dose during initial arrest.
- If ROSC then re-arrest and additional 3 doses may be administered.

Amiodarone
- IV/IO – 5 mg/kg – after second defibrillation
- If VT/VF-persists, repeat 5 mg/kg x 2 q 3-5 minutes

Normal Saline
- IV/IO 20 mL/kg bolus

ALS Airway Management
- If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures in accordance with policy 710.

When Torsades de Pointes is identified:
- **Magnesium Sulfate**
  - IV/IO – 50 mg/kg over 2 min
  - Repeat x 1 in 5 min

Treat underlying causes when identified:
Renal failure / History of Dialysis:
- **Calcium Chloride**
- IV/IO – 20 mg/kg
- Repeat x 1 in 10 min
- **Sodium Bicarbonate**
  - IV/IO – 1 mEq/kg
  - Repeat 0.5 mEq/kg x 2 q 5 min

Tricyclic Antidepressant Overdose:
- **Sodium Bicarbonate**
  - IV/IO – 1 mEq/kg
  - Repeat 0.5 mEq/kg x 2 q 5 min

Base Hospital Orders Only

Consult with ED Physician for further treatment measures*

Additional Information:
- If sustained ROSC (>30 seconds), activate VF/VT alarm and initiate post arrest resuscitation as outlined in Policy 733: Cardiac Arrest management and Post Arrest Resuscitation.
- For termination of resuscitation, transport decisions, and use of base hospital consult reference Policy 733: Cardiac Arrest Management and Post Arrest Resuscitation
- If patient is hypothermic–only ONE round of medication administration and limit *defibrillation to 6 times* prior to Base Hospital contact. Field determination of death is discouraged in these patients and they should be transported to the most accessible receiving facility
- Ventricular tachycardia (VT) is a rate > 150 bpm

Effective Date: December 1, 2020
Next Review Date: October 31, 2022

Date Revised: October 8, 2020
Last Reviewed: October 8, 2020

VCEMS Medical Director

Crush Injury/Syndrome

BLS Procedures

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

ALS Standing Orders

Potential for Crush Syndrome
- IV/IO access
- Release compression
- Monitor for cardiac dysrhythmias

ADULT

Crush Syndrome
- Initiate 2nd IV/IO access
- **Normal Saline**
  - IV/IO bolus – 1 Liter
    - Caution with cardiac and/or renal history
- **Sodium Bicarbonate**
  - IV/IO mix – 1 mEq/kg
    - Added to 1st Liter of Normal Saline
- **Albuterol**
  - Nebulizer – 5 mg/6 mL
    - Repeat as needed
- **Pain Control**– Per Policy 705.19
- Release compression
- Monitor for cardiac dysrhythmias
- For cardiac dysrhythmias:
  - **Calcium Chloride**
    - IV/IO – 1 g over 1 min

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

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

PEDIATRIC

Crush Syndrome
- Initiate 2nd IV/IO access if possible or establish IO
- **Normal Saline**
  - IV/IO bolus – 20 mL/kg
    - Caution with cardiac and/or renal history
- **Sodium Bicarbonate**
  - IV/IO mix– 1 mEq/kg
    - Added to 1st Liter of Normal Saline
- **Albuterol**
  - **Patient ≤ 30 kg**
    - Nebulizer – 2.5 mg/3 mL
      - Repeat as needed
  - **Patient > 30 kg**
    - Nebulizer – 5 mg/6 mL
      - Repeat as needed
- **Pain Control**– Per Policy 705.19
- Release compression
- Monitor for cardiac dysrhythmias
- For cardiac dysrhythmias:
  - **Calcium Chloride**
    - IV/IO – 20 mg/kg over 1 min

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

For persistent hypotension after fluid bolus:
- Epinephrine 10 mcg/mL
  - 0.1 mL/kg (1 mcg/kg) q 2 minutes, slow IV/IO push
  - Max single dose of 1 mL or 10 mcg
  - Titrate to SBP of greater than or equal to 80 mm/Hg

Base Hospital Orders Only

Consult with ED Physician when orders are needed for interventions within scope but not addressed in policy

Additional Information:
- 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.
- Crush Syndrome – Continuous crush injury to torso or extremity above wrist or ankle for greater than 2 hours.
- If elderly or cardiac history is present, use caution with fluid administration. Reassess and treat accordingly.
- Dysrhythmias are usually secondary to Hyperkalemia. ECG monitor may show: Peaked T-waves, Absent P-waves, widened QRS complexes, bradycardia
- Calcium Chloride and Sodium Bicarbonate precipitate when mixed. Strongly consider starting a second IV (if feasible) for administration of Calcium Chloride

Effective Date: December 1, 2020
Next Review Date: October 31, 2022
Date Revised: October 26, 2020
Last Reviewed: October 26, 2020

VCEMS Medical Director

Nausea/Vomiting

ADULT	PEDIATRIC
BLS Procedures	
Maintain airway and position of comfort Administer oxygen as indicated	Maintain airway and position of comfort Administer oxygen as indicated
ALS Prior to Base Hospital Contact	
Indications for Ondansetron: 1. Moderate to severe nausea or vomiting. 2. Potential for airway compromise secondary to suspected/actual head injury when cervical immobilization is used. 3. Prior to MS administration • IV/IO access • Cardiac Monitor • **Ondansetron** o PO – 4 mg ODT • May repeat x 1 in 10 min o IV/IM/IO – 4 mg • May repeat x 1 in 10 min	Indications for Ondansetron: 1. Moderate to severe nausea or vomiting. 2. Potential for airway compromise secondary to suspected/actual head injury when cervical immobilization is used. 3. Prior to MS administration • IV/IO access • Cardiac Monitor **Ages 6 months up to 5 years** • **Ondansetron** o PO – 2 mg ODT o IV/IM/IO – 0.1 mg/kg **Ages ≥ 5 Years** • **Ondansetron** o PO – 4 mg ODT o IV/IM/IO – 0.1 mg/kg
Base Hospital Orders only	
Consult with ED Physician for further treatment measures	Consult with ED Physician for further treatment measures

- The use of ondansetron should be avoided in patients with known congenital long QT syndrome
- Use caution in administration of ondansetron for patients with electrolyte imbalances, CHF, bradyarrhythmia, or patients taking medications known to prolong the QT interval

Effective Date: December 1, 2020
Next Review Date: October 31, 2022

Date Revised: October 8, 2020
Last Reviewed: October 8, 2020

VCEMS Medical Director

Nerve Agent / Organophosphate Poisoning

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 MUST be decontaminated prior to entering the cold zone.

ADULT	PEDIATRIC

BLS Procedures

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

- **Mark I or DuoDote Antidote Kit**
  - Mild Exposure: IM x 1
  - Moderate Exposure: IM x1
    - May repeat in 10 minutes if symptoms persist
  - Severe Exposure: IM x 3 in rapid succession, rotating injection sites

ALS Prior to Base Hospital Contact

Patient's that are exhibiting obvious signs of exposure (SLUDGEM) of Organophosphate exposure and/or Nerve Agents
If not already administered by BLS personnel:

- **Mark I or DuoDote Antidote Kit**
  - Mild Exposure: IM x 1
  - Moderate Exposure: IM x1
    - May repeat in 10 minutes if symptoms persist
  - Severe Exposure: IM x 3 in rapid succession, rotating injection sites

For seizures:

- Midazolam
  - IV/IO – 2 mg
    - Repeat 1 mg q 2 min as needed
    - Max 5 mg
  - IM – 0.1 mg/kg
    - Max 5 mg

Patient's that are exhibiting obvious signs of exposure (SLUDGEM) of Organophosphate exposure and/or Nerve Agents
If not already administered by BLS personnel:

- **Mark I or DuoDote Antidote Kit**
  - Mild Exposure: IM x 1
  - Moderate Exposure: IM x1
    - May repeat in 10 minutes if symptoms persist
  - Severe Exposure: IM x 3 in rapid succession, rotating injection sites

For seizures:

- Midazolam
  - IM – 0.1 mg/kg
    - Max 5 mg
  - IV/IO – 0.1 mg/kg
    - Repeat q 2 min as needed
    - Max single dose 2 mg
    - Max total dose 5 mg

Base Hospital Orders Only

Consult with ED Physician for further treatment measures

- Refer to VCEMS Policy 705.18-Overdose/Poisoning for organophosphate poisoning treatment guidelines.
- DuoDote contains 2.1 mg Atropine Sulfate and 600 mg Pralidoxime Chloride.
- **Diazepam** 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:
  - **Adult**: 5 mg IM/IV/IO q 10 min titrated to effect *(max 30 mg)*
  - **Pediatric**: 0.1 mg/kg IV/IM/IO (max initial dose 5 mg) over 2-3 min q 10 min titrated to effect *(max total dose 10 mg)*
- Mild exposure with symptoms:
  - Miosis, rhinorrhea, drooling, sweating, blurred vision, nausea, bradypnea or tachypnea, nervousness, fatigue, minor memory disturbances, irritability, unexplained tearing, wheezing, tachycardia, bradycardia
- Moderate exposure with symptoms:
  - Miosis, rhinorrhea, SOB, wheezing, secretions, soft muscle weakness and fasciculations, GI effects
- Severe exposure with symptoms:
  - Strange confused behavior, severe difficulty breathing, twitching, unconsciousness, seizing, flaccid, apnea pinpoint pupils involuntary defecation, urination

Effective Date: December 1, 2020
Next Review Date: October 31, 2022
Date Revised: October 26, 2020
Last Reviewed: October 26, 2020

VCEMS Medical Director

Overdose

BLS Procedures

Decontaminate if indicated and appropriate

Administer oxygen and support ventilations as indicated

Suspected opioid overdose with respirations less than 12/min and significant ALOC:

- **Naloxone**
  - IN – 4 mg in 0.1 mL, may repeat X 1, Max of 8 mg
  - IM – 2 mg, may repeat X 1, Max of 4 mg

ALS Standing Orders

ADULT

IV/IO access

Suspected opioid overdose with respirations less than 12/min and significant ALOC

- **Naloxone, if not already administered by BLS personnel or if patient continues with decreased resp rate and significant ALOC**
  - IN – 4 mg in 0.1 mL, may repeat x1, Max of 8 mg
  - IM – 2 mg q 5 min
  - IV/IO – 0.4 mg q 1min
    - Initial max 6 mg
  - May repeat as needed to maintain respirations greater than 12/min

Dystonic Reaction

- **Benadryl**
- **IV/IO/IM – 50 mg**

Stimulant/Hallucinogen Overdose

- **Midazolam**
  - IV/IO – 2 mg
    - Repeat 1 mg q 2 min as needed
    - Max 5 mg
  - IM – 0.1 mg/kg
  - Max 5 mg

PEDIATRIC

IV/IO access

Suspected opioid overdose with respirations less than 12/min and significant ALOC:

- **Naloxone, if not already administered by BLS personnel or if patient continues with decreased resp rate and significant ALOC**
  - IM – 0.1 mg/kg
    - Initial max of 2 mg
  - IV/IO – 0.1 mg/kg
    - Initial max 2 mg
  - May repeat as needed to maintain respirations greater than 12/min

Dystonic Reaction
For patients ≥ 6 months of age

- **Benadryl**
  - **IV/IO/IM – 1 mg/kg**
    - **Max 50 mg**

Stimulant/Hallucinogen Overdose

- **Midazolam**
  - IM – 0.1 mg/kg
    - Max 5 mg
  - IV/IO – 0.1 mg/kg
    - Repeat q 2 min as needed
    - Max single dose 2 mg
    - Max total dose 5 mg

Base Hospital Orders Only

ADULT

Tricyclic Antidepressant Overdose

- **Sodium Bicarbonate**
  - IV/IO – 1 mEq/kg
  - Repeat 0.5 mEq/kg x 2 q 5 min

Beta Blocker Overdose

- **Glucagon**
  - IV/IO – 2 mg
    - May give up to 10mg if available

Calcium Channel Blocker Overdose

- **Calcium Chloride**
  - IV/IO – 1 g over 1 min
- **Glucagon**
  - IV/IO – 2 mg
    - May give up to 10 mg if available

PEDIATRIC

Tricyclic Antidepressant Overdose

- **Sodium Bicarbonate**
  - IV/IO – 1 mEq/kg
  - Repeat 0.5 mEq/kg x 2 q 5 min

Beta Blocker Overdose

- **Glucagon**
  - IV/IO – 0.1 mg/kg
    - May give up to 10 mg if available

Calcium Channel Blocker Overdose

- **Calcium Chloride**
  - IV/IO – 20 mg/kg over 1 min
- **Glucagon**
  - IV/IO – 0.1 mg/kg
    - May give up to 10 mg if available

Additional Information:

- Refer to VCEMS Policy 705.17-Nerve Agent Poisoning for nerve agent exposure treatment guidelines.
- If chest pain present, refer to chest pain policy. DO NOT GIVE ASPIRIN OR NITROGLYCERIN (Consult with ED Physician)
- Narcan – it is not necessary that the patient be awake and alert. Administer until max dosage is reached **or** RR greater than 12/min. When given to chronic opioid patients, withdrawal symptoms may present. IM dosing is the preferred route of administration.
  - If base hospital contact cannot be made, naloxone should be administered sparingly, in doses no more than 0.1 mg every 2-3 minutes.

Effective Date: December 1, 2020
Next Review Date: October 31, 2022

Date Revised: October 8, 2020
Last Reviewed: October 8, 2020

VCEMS Medical Director

Pain Control

BLS Procedures

Place patient in position of comfort
Administer oxygen as indicated

ALS Standing Orders

IV/IO access

Cardiac Monitor

Pain 5 out of 10 or greater and SBP > 90 mmHg

Fentanyl
- IV/IO - 1 mcg/kg over 1 minute, OR IN/IM – 1mcg/kg
- Max single dose 100 mcg
- May repeat q 5 minutes for persistent pain to a max total dose 200 mcg
- Repeat doses should be administered IV/IO if vascular access obtained

If Fentanyl unavailable;

Ondansetron - Per 705.15 Nausea/Vomiting Policy
- Repeat x 1 in 10 minutes for nausea or > 2 doses of Morphine

Morphine
- **IV/IO** - 0.1 mg/kg over 1 minute
- Max single dose 10 mg
- May repeat ½ initial dose x 2 q 5 min

OR

Morphine
- IM - 0.1 mg/kg
- Max single dose 10 mg
- May repeat ½ initial dose x 2 q 15 min

Base Hospital Orders only

Consult with ED Physician when orders are needed for interventions within scope but not addressed in policy.

Additional Information

1. **Consider administering ½ normal dose of Opiate pain control;**
   - Patients 65 years of age and older
   - Patients with past adverse reaction to opiates
   - Patients with suspected cardiac ischemia or active TCP
   - Patients with traumatic injuries who are at risk for hemodynamic decompensation

Effective Date: December 1, 2020
Next Review Date: October 31, 2022
Date Revised: October 8, 2020
Last Reviewed: October 8, 2020

VCEMS Medical Director

Seizures

ADULT	PEDIATRIC

BLS Procedures

Protect from injury

Maintain/manage airway as indicated

Administer oxygen as indicated for suspected febrile seizures, begin passive cooling measures. If seizure activity persists, see below:

Determine Blood Glucose level, and treat according to VC EMS policy 705.03 – Altered Neurologic Function

ALS Prior to Base Hospital Contact

ADULT

IV/IO access

If not already performed by BLS personnel, determine Blood Glucose level, and treat according to VC EMS policy 705.03 – Altered Neurologic Function

Persistent Seizure Activity

- **Midazolam** (Give to ***actively seizing*** pregnant patients prior to magnesium)
  - IM – 0.1 mg/kg
    Max 5 mg
  - IV/IO – 2 mg
    Repeat 1 mg q 2 min as needed
    Max 5 mg

<u>20 weeks gestation to one week postpartum & No Known Seizure History</u>

- **Magnesium Sulfate**
  - IV/IOPB – 4 g in 50 mL D_5W infused over 10 min
    - Slow or stop infusion if bradycardia, heart block, or decreased respiratory effort occur

PEDIATRIC

Consider IV/IO access

If not already performed by BLS personnel, determine Blood Glucose level, and treat according to VC EMS policy 705.03 – Altered Neurologic Function

Persistent Seizure Activity

- **Midazolam**
  - IM – 0.1 mg/kg
    Max 5 mg
  - IV/IO – 0.1mg/kg,
    Repeat q 2 min as needed.
    Max single dose 2 mg
    Max total dose 5 mg

Base Hospital Orders only

Consult with ED Physician for further treatment measures

Additional Information:

- 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.

Effective Date: December 1, 2020
Next Review Date: October 31, 2022

Date Revised: October 8, 2020
Last Reviewed: October 8, 2020

VCEMS Medical Director

Shortness of Breath – Pulmonary Edema

BLS Procedures

Administer oxygen as indicated

Initiate CPAP for moderate to severe distress

ALS Standing Orders

Nitroglycerin

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

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

Perform 12-lead ECG (Per VCEMS Policy 726)

IV/IO access

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

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

If patient presents or becomes hypotensive

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

Base Hospital Orders only

Consult with ED Physician for further treatment measures

Additional Information:

- Refer to VCEMS Policy 735 for additional information on preparing push dose epinephrine solution.
- 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.

Shortness of Breath – Wheezes/Other

BLS Procedures

Administer oxygen as indicated

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

Assist patient with prescribed Metered Dose Inhaler if available

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

ALS Standing Orders

ADULT

Perform Needle Thoracostomy if indicated per VCEMS Policy 715

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

Moderate Distress
- **Albuterol**
  - Nebulizer – 5 mg/6 mL
  - MDI with spacer -4 puffs (360 mcg) is an acceptable alternative to nebulized Albuterol
  - Repeat Albuterol as needed

Severe distress
- **Epinephrine 1 mg/mL**, if not already administered by BLS personnel
  - IM - 0.3mg
    - May repeat q 5 minutes if patient still in distress and unable to obtain vascular access.
- **Albuterol**
  - Nebulizer – 5 mg/6 mL
    - Repeat as needed

Establish IV/IO access

Severe Distress, not improving with prior epinephrine administration
- **Epinephrine 10 mcg/mL**
  - 1 mL (10 mcg) q 2 minutes, slow IV/IO push
  - Titrate to overall improvement in work of breathing

PEDIATRIC

Perform Needle Thoracostomy if indicated per VCEMS Policy 715

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

Moderate Distress
- **Albuterol**
  - **Patients ≤ 30 kg**
    - Nebulizer – 2.5 mg/3 mL
    - MDI with spacer -2 puffs (180 mcg) is an acceptable alternative to nebulized Albuterol
  - **Patients > 30 kg**
    - Nebulizer – 5 mg/6 mL
    - MDI with spacer -4 puffs (360 mcg) is an acceptable alternative to nebulized Albuterol
  - Repeat Albuterol as needed

Severe Distress
- **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 and unable to obtain vascular access.

Establish IV/IO access

Severe Distress, not improving with prior epinephrine administration
- **Epinephrine 10mcg/mL**
  - 0.1mL/kg (1mcg/kg) every 2 minutes, slow IV/IO push
  - Max single dose of 1mL or 10mcg
  - Titrate to overall improvement in work of breathing.

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

Suspected croup - Severe (stridor or respiratory distress)
- **Nebulized 1 mg/mL Epinephrine**
  - **Patients less than 30 kg**
    - Nebulizer – 2.5 mg/2.5 mL
  - **Patients 30 kg and greater**
    - Nebulizer – 5 mg/5 mL

Base Hospital Orders Only

Consult with ED Physician for further treatment measures

Additional Information:.
- If hypotensive, consider alternative etiologies and refer to additional treatment protocols.
- High flow O_2 is indicated for severe respiratory distress, even with a history of COPD
- COPD patients have a higher susceptibility to spontaneous pneumothorax due to disease process
- If suspected Arterial Gas Embolus/Decompression Sickness secondary to SCUBA emergencies, transport patient in supine position on 15L/min O_2 via mask. Early BH contact is recommended to determine most appropriate transport destination.

Effective Date: December 1, 2020
Next Review Date: October 31, 2022
Date Revised: October 8, 2020
Last Reviewed: October 8, 2020

VCEMS Medical Director

Supraventricular Tachycardia

ADULT	PEDIATRIC
BLS Procedures	
Administer oxygen as indicated	
ALS Standing Orders	
Valsalva maneuver IV/IO access <u>Stable</u> - Mild to moderate chest pain/SOB **Adenosine** o IV/IO – 6 mg rapid push immediately followed by 10-20 mL NS flush No conversion or rate control **Adenosine** o IV/IO –12 mg rapid push immediately followed by 10-20 mL NS flush o May repeat x 1 if no conversion or rate control <u>Unstable</u> - ALOC, signs of shock or CHF **Synchronized Cardioversion** o **Zoll** 75, 120, 150, 200 Joules o **Lifepak** 100, 200, 300, 360 Joules o Consider sedation prior to cardioversion for special circumstances. <u>Special Circumstances*</u> **Fentanyl** o 1 mcg/kg IV/ IO / IN prior to electrical therapy.	Valsalva maneuver IV/IO access <u>Stable</u> - Mild to moderate chest pain/SOB **Adenosine** o IV/IO – 0.1 mg/kg (max 6 mg) rapid push immediately followed by 10-20 mL NS flush No conversion or rate control **Adenosine** o IV/IO – 0.2 mg/kg (max 12 mg) rapid push immediately followed by 10-20 mL NS flush o May repeat x 1 if no conversion or rate control <u>Unstable</u> - ALOC, signs of shock or CHF **Synchronized Cardioversion** o 0.5, 1, 2, 4, 6, 8 joules/kg o Consider sedation prior to cardioversion for special circumstances. <u>Special Circumstances*</u> **Fentanyl** o 1 mcg/kg IV/ IO / IN prior to electrical therapy.
Base Hospital Orders only	
Consult with ED Physician for further treatment measure	

Additional Information:

- *Special circumstances for sedation prior to cardioversion include fully awake and alert, patients with unstable vital signs.
  - o 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.
  - o Consider patient stability, likelihood of other rhythms (Rapid a-fib, sinus tachycardia, a-flutter), and potential underlying causes of tachycardia (sepsis, hypovolemia, heart failure) to aid in identifying cases where transport without Adenosine administration may be appropriate.
  - o Prior to administering Adenosine in pediatric patients, evaluate for possible underlying causes of tachycardia (infection, dehydration, trauma, etc.)
  - o Document all ECG strips during adenosine administration and/or synchronized cardioversion.

Effective Date: December 1, 2020
Next Review Date: October 31, 2022

Date Revised: October 8, 2020
Last Reviewed: October 8, 2020

VCEMS Medical Director

Symptomatic Bradycardia

ADULT (HR less than 40 bpm)	PEDIATRIC (HR less than 60 bpm)
BLS Procedures	
Administer oxygen as indicated Supine position as tolerated	Administer oxygen as indicated Assist ventilations if needed If significant ALOC, initiate CPR
ALS Standing Orders	
IV/IO access **Obtain 12-lead ECG** **Atropine** • IV/IO – 0.5 mg (0.1 MG/mL) If initial Atropine is transiently effective, or patient remains bradycardic without hemodynamic compromise. • May repeat Atropine 0.5 mg IV/IO q 5 min to a total max dose of 3 mg. **Transcutaneous Pacing (TCP)** • Should be initiated only if patient has signs of hypoperfusion • Should be started immediately for 3º heart blocks and 2º Type 2 (Mobitz II) heart blocks • If pain is present during TCP o **Pain Control**– per policy 705.19 If patient remains hypotensive (SBP less than 90mmHg) **Epinephrine 10 mcg/mL** • 1 mL (10 mcg) q 2 minutes, slow IV/IO push • Titrate to SBP ≥ 90 mm/Hg When patient presents or becomes hypotensive without signs of heart failure. **Normal Saline** • 500 mL IV/IO bolus • May repeat x 1 for total of 1,000 mL For suspected hyperkalemia • **Calcium Chloride** o IV/IO – 1 g ▪ Withhold if suspected digitalis toxicity • **Sodium Bicarbonate** o IV/IO – 1 mEq/kg o Repeat 0.5 mEq/kg x 2 q 5 min	**If CPR indicated, initiate CAM and reference appropriate cardiac arrest treatment protocol** **IV/IO access** • IV/IO access only if patient in extremis • **Epinephrine 10 mcg/mL** o 0.1 mL/kg (1 mcg/kg) q 2 minutes, slow IV/IO push o Max single dose of 1 mL or 10 mcg o Titrate to SBP of greater than or equal to 80 mm/Hg
Base Hospital Orders Only	
	Atropine • IV/IO – 0.02 mg/kg o Minimum dose – 0.1 mg
Consult with ED Physician for further treatment measure	
Additional Information • Bradycardia does not require treatment unless signs and symptoms are present (chest pain, altered level of consciousness, abnormal skin signs, profound weakness, shortness of breath or low BP) • Refer to VCEMS Policy 735 for additional information on preparing push dose epinephrine solution.	

Effective Date: December 1, 2020
Next Review Date: October 31, 2022
Date Revised: October 8, 2020
Last Reviewed: October 8, 2020

VCEMS Medical Director

Effective Date:	December 1, 2020	Date Revised:	October 8, 2020
Next Review Date:	October 31, 2022	Last Reviewed:	October 8, 2020

VCEMS Medical Director

Ventricular Tachycardia Sustained – Not in Arrest

Adult

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_5W infused over 10 minutes.

Unstable – ALOC, signs of shock or CHF
- **Synchronized Cardioversion**
  - **Zoll** 75, 120, 150, 200 joules
  - **Lifepak** 100, 200, 300, 360 joules
  - Consider sedation prior to cardioversion for special circumstances*

Unstable polymorphic (irregular) VT:
- **Defibrillate**
  - Defibrillate as indicated
    - Lifepak 360 Joules
    - Zoll 200 Joules
  - Consider sedation prior to defibrillation as outlined below for special circumstances*

Torsades de Pointes
- **Magnesium Sulfate**
  - IV/IOPB – 2 g in 50 mL D_5W infused over 5 min
    - May repeat x 1 if Torsades continues or recurs

Special Circumstances*
- **Fentanyl**
  - 1 mcg/kg IV/ IO / IN prior to electrical therapy.

If recurrent VT, perform synchronized cardioversion or defibrillation at last successful Joules setting.

After successful cardioversion, obtain an ECG per Policy 726.

Pediatric

BLS Procedures

Administer oxygen as indicated

ALS Standing Orders

IV/IO Access

Stable – Mild to moderate chest pain/SOB
- **Amiodarone**
  - IV/IOPB **–** 5 mg/kg (max 150 mg) in 50mL D_5W infused over 10 minutes.

Unstable – ALOC, signs of shock or CHF
- **Synchronized Cardioversion**
  - 0.5, 1, 2, 4, 6, 8 joules/kg
  - Consider sedation prior to cardioversion for special circumstances*

Unstable polymorphic (irregular) VT:
- **Defibrillate**
  - Defibrillate as indicated using escalating joules doses
    - 2, 4, 6, 8 joules/kg
  - Consider sedation prior to defibrillation as outlined below for special circumstances*

Torsades de Pointes
- **Magnesium Sulfate**
  - IV/IOPB – 50 mg/kg (max 2 g) in 50 mL D_5W infused over 5 min
    - May repeat x 1 if Torsades continues or recurs

Special Circumstances*
- **Fentanyl**
  - 1 mcg/kg IV / IO / IN prior to electrical therapy.

If recurrent VT, perform synchronized cardioversion or defibrillation at last successful Joules setting.

After successful cardioversion, obtain an ECG per Policy 726.

Base Hospital Orders only

ED Physician Order Only: After synchronized cardioversion or defibrillation, if patient converts to narrow complex rhythm greater than 50 bpm and not in 2nd or 3rd degree heart block, and amiodarone not already given, consider amiodarone - 150 mg IV/IOPB in D_5W infused over 10 minutes.

Additional Information:
- *Special circumstances for sedation prior to cardioversion include Fully awake and alert, patients 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

Effective Date:	December 1, 2020	Date Revised:	October 8, 2020
Next Review Date:	October 31, 2022	Last Reviewed:	October 8, 2020

VCEMS Medical Director

Smoke Inhalation

BLS Procedures

Remove individual from the environment
Consider gross decontamination
Assess ABCs
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

ALS Standing Orders

ADULT

Airway support in accordance with Policy 710 – Airway Management

IV/IO access as indicated

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

If smoke inhalation AND unconscious, ALOC, or cardiac arrest:
- **Hydroxocobalamin – If Available**
  - IV/IO – 5 g in 200 mL NS over 15 minutes

PEDIATRIC

Airway support in accordance with Policy 710 – Airway Management

IV/IO access as indicated

If Wheezes present
- **Albuterol**
  - **Patient ≤ 30 kg**
    - Nebulizer – 2.5 mg/3 mL
      - Repeat as needed
  - **Patient > 30 kg**
    - Nebulizer – 5 mg/6 mL
      - Repeat as needed

If smoke inhalation AND unconscious, ALOC, or cardiac arrest:
- **Hydroxocobalamin – If Available**
  - IV/IO – 70 mg/kg to a max of 5 g in 200 mL NS over 15 minutes

Base Hospital Orders Only

ADULT

Continued unconscious/ALOC OR poor response to initial dose
- **Hydroxocobalamin**
  - IV/IO – 5 g in 200 mL NS over 15 to 120 minutes, depending on clinical presentation.

PEDIATRIC

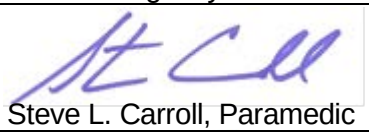
Continued unconscious/ALOC OR poor response to initial dose
- **Hydroxocobalamin**
  - IV/IO – 70 mg/kg to a max of 5 g in 200 mL NS over 15 to 120 minutes, depending on clinical presentation.

Consult with ED Physician for further treatment measures.

Additional Information:
- If monitoring equipment is available, the patient's carboxyhemoglobin levels should be checked if smoke inhalation is suspected.
- Evidence of smoke inhalation includes soot around mouth and/or nares, increased work of breathing, wheezing
- 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.
- DO NOT administer hydroxocobalamin if patient has a known allergy to hydroxocobalamin or cyanocobalamin

Effective Date: December 1, 2020
Next Review Date: October 31, 2022
Date Revised: October 8, 2020
Last Reviewed: October 8, 2020

VCEMS Medical Director

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Public Health Emergency Vaccine Administration		Policy Number 737
APPROVED: Administration:	 Steve L. Carroll, Paramedic	Date: October 15, 2020
APPROVED: Medical Director:	 Daniel Shepherd, M.D.	Date: October 15, 2020
Origination Date: Date Revised: Date Last Reviewed: Review Date:	September 28, 2020 December 31, 2021	Effective Date: October 15, 2020

I. PURPOSE: To authorize paramedics to administer the intramuscular inactivated influenza and/or COVID-19 vaccine to adult patient populations (14 or older) when authorized by the Ventura County EMS Agency during the COVID-19 disaster declaration.

II. AUTHORITY: California Health and Safety Code, Sections 1797.220 and 1798. California Code of Regulations, Title 22, Sections 100145 and100169. State of California Emergency Proclamation for COVID-19

III. POLICY: Paramedics accredited by the Ventura County EMS Agency approved for this local optional scope of practice, and having had completed the VCEMSA approved training to administer intramuscular influenza and/or COVID-19 (when available) vaccines, may provide these vaccinations to persons as directed by VCEMSA Medical Director in conjunction with the County Public Health Department. These vaccination policies and procedures shall only be authorized and valid for paramedics accredited in accordance with VCEMS Policy 315 – Paramedic Accreditation to Practice that have been approved to utilize this local optional scope during the California COVID-19 emergency proclamation.

IV. PROCEDURE:

A. Vaccine Administration

1. Assess the need for the vaccine in question utilizing the current guidance on that vaccination, which will be provided by the Ventura County Public Health Department. (also see CDC information regarding the seasonal flu vaccine

https://www.cdc.gov/flu/prevent/keyfacts.htm)

2. Screen for contraindications and precautions of inactivated vaccine (listed below).
3. Collect and review Vaccine Consent/Record of Administration sheet.
   a. Confirm that the consent has been signed.
4. Vaccinate patients while they are seated or lying down and consider observing them for 15 minutes after receipt of the vaccine.
5. Paramedics must maintain aseptic technique when administering the influenza or COVID vaccines.
6. The screening questionnaire must be completed prior to administration of the influenza or COVID vaccine.
7. Equipment Required:
   a. Vaccine
   b. 23-25 g, 1-inch needle
      i. For larger patients, 1.5-inch needle length may be more appropriate.
      ii. See “Needle Gauge/Length and Injection Site Guidance” below for additional information.
      iii. COVID-19 vaccine may come as prefilled/ready to administer or require other injection supplies or sizes.

Needle Gauge/Length and Injection Site Guidance

Gender, Age, Weight of Pt.	Needle Gauge	Needle Length (inches)	Injection Site
14 to 18 years	22-25	5/8* – 1 1 – 1 ½	Deltoid muscle of arm Anterolateral thigh muscle
Female or male less than 130 lbs	22–25	5⁄8*–1"	Deltoid muscle of arm
Female or male 130–152 lbs	22–25	1"	Deltoid muscle of arm
Female 153–200 lbs	22–25	1–1½"	Deltoid muscle of arm
Male 153–260 lbs	22–25	1–1½"	Deltoid muscle of arm
Female 200+ lbs	22–25	1½"	Deltoid muscle of arm
Male 260+ lbs	22–25	1½"	Deltoid muscle of arm

** A 5⁄8" needle may be used in patients weighing less than 130 lbs (<60 kg) for IM injection in the deltoid muscle with the skin is stretched tight, the subcutaneous tissue not bunched, and at a 90-degree angle to the skin, although specific differences may be required by various COVID-19 manufacturers.*

8. Hand hygiene and don gloves
9. Check expiration date of vaccine
10. Cleanse the area of the deltoid muscle with the alcohol prep.

   a. Deltoid landmarks: 2-3 finger widths down from the acromion process; bottom edge is imaginary line drawn from axilla.
11. Insert the needle at a 90-degree angle into the muscle.
   a. Pulling back on the plunger prior to injection is not necessary.
12. Inject the vaccine into the muscle.
13. Withdraw the needle, and using the alcohol prep, apply slight pressure to the injection site.
14. Do not recap or detach needle from syringe. All used syringes/needles should be placed in puncture-proof containers.
15. Monitor the patient for any symptoms of allergic reaction.
16. Document the following information:
   a. Date of vaccination
   b. Name of patient
   c. Injection site
   d. Vaccine lot number
   e. Vaccine manufacturer
17. Complete Appropriate Documentation:
   a. **Vaccine Consent/Record of Administration form:** ensure this is completed, retained and appropriately submitted after administration.
      i. Note that medical records/charts should be documented and retained in accordance with applicable state laws and regulations. If vaccine was not administered, record the reason(s) for non-receipt of the vaccine (e.g., medical contraindication, patient refusal). Discuss the need for vaccine with the patient (or, in the case of a minor, their parent or legal representative) at the next visit.
   b. **Vaccine Information Statement:** document the publication date and the date it was given to the patient.
   c. **Patient's medical record:** if accessible, record vaccine information (above) in the patient's medical record.
   d. **Personal immunization record card:** record the date of vaccination and name/location of administering clinic.
   e. **Immunization Information System (IIS), or "registry":** Report the vaccination

to the appropriate state/local IIS, if available.

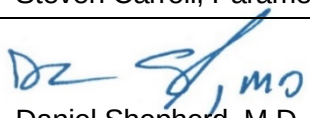
f. **VAERS:** report all adverse events following the administration of a vaccine to the federal Vaccine Adverse Event Reporting System (VAERS).
   i. To submit a VAERS report online (preferred) or to download a writable PDF form, go to https://vaers.hhs.gov/reportevent.html. Further assistance is available at (800) 822-7967.

18. Give patient vaccine information sheet, using the appropriately translated sheet for non-English speaking client; these can be found at www.immunize.org/vis.
19. Advise patient when to return for subsequent vaccination, if appropriate.

B. Contraindications, Relative Contraindications, and Considerations for Vaccine Administration
   1. Contraindications for Use of Vaccines
      a. Do not administer vaccines to a person who has an allergic reaction or a serious systemic or anaphylactic reaction to a prior dose of that vaccine or to any of its components. For a list of vaccine components, refer to guidance specific to this vaccine provided by the manufacturer and/or VCEMSA.
      b. The manufacturer's package insert contains a list of ingredients (www.immunize.org/fda) and these are also listed at www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/B/excipient-table-2.pdf
      c. Contraindications for Live Attenuated Vaccines are not pertinent as these are not being administered under this local optional scope of practice
   2. Relative Contraindications for Use of Vaccines
      a. Moderate or severe acute illness with or without fever
      b. History of Guillain-Barré syndrome within 6 weeks of a previous vaccination
      c. People with egg allergies can receive any licensed, recommended age-appropriate influenza vaccine (IIV, RIV4, or LAIV4) that is otherwise appropriate. People who have a history of severe egg allergy (those who have had any symptom other than hives after exposure to egg) should be vaccinated in a medical setting, supervised by a health care provider who is able to recognize and manage severe allergic reactions. Two completely egg-free

(ovalbumin-free) flu vaccine options are available: quadrivalent recombinant vaccine and quadrivalent cell-based vaccine.

3. Considerations for Vaccine Administration
   a. Treatment of medical emergencies related to the administration of vaccine will be in accordance with VCEMSA Policies and Procedures.

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Documentation of Prehospital Care		Policy Number 1000
APPROVED: Administration:	 Steven Carroll, Paramedic	Date: December 1, 2020
APPROVED: Medical Director	 Daniel Shepherd, M.D.	Date: December 1, 2020
Origination Date: Date Revised: Date Last Reviewed: Review Date:	June 15, 1998 October 15, 2020 October 15, 2020 October 31, 2023	Effective Date: December 1, 2020

I. PURPOSE: To define the use of standardized records to be used by Ventura County Emergency Medical Service (VCEMS) providers for documentation of pre-hospital care.

II. AUTHORITY: California Health and Safety Code, Sections 1797.225, and 1798; California Code of Regulations, Title 22, Division 9, Section 100147.

III. Definitions:

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

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

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

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

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

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

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

V. PROCEDURE:

A. Provision of Access

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

B. Documentation

1. The VCEMS VCePCR will be used to document the care provided by pre-hospital personnel for every incident in which there is a patient contact. Documentation shall be completed on any person with obvious injury or significant mechanism regardless of consent. The following are exceptions:
    a. If a First Responder Advanced Life Support (FR ALS) Paramedic initiates care of the patient, the FR ALS Paramedic shall document all care provided to the patient on VCePCR.
    b. If care is turned over to another ALS agency, a VCePCR shall be completed by all pre-hospital provider agencies who delivered patient care and/or transport.
    c. All relevant fields pertaining to the EMS event will be appropriately documented on the VCePCR.
    d. Patient side documentation is encouraged and should be practiced whenever patient care would not be negatively affected.
    e. In the event of an incident with three or more victims, documentation will be accomplished as follows:

1) MCI/Level I (3-14 victims): The care of each patient shall be documented using a VCePCR.

2) MCI/Level II or III (15+ victims): Each patient transported to a hospital shall have their care documented on a Ventura County Multi-Casualty Patient Record.

a) The transporting agency is responsible for completion of the multi-casualty patient record. The record is designed to be completed by the transporting crew enroute to the receiving hospital.

b) The transporting agency retains the original of the multi-casualty patient record. A copy shall be left with the patient at the receiving hospital. The triage tag shall be attached to this copy and is included as official documentation in the patient's medical record.

c) The transporting agency shall distribute copies of the multi-casualty patient record to the base hospital and EMS Agency within twenty-four hours of demobilization of the incident.

C. Transfer of Care

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

a. Any / all agencies involved in the transferring of electronic medical records shall ensure they are uploading and downloading the correct record for the correct patient.

2. A VCePCR shall be completed in accordance with training administered by VCEMS, or designee.

3. The time that patient care is transferred to hospital staff shall be documented by the primary provider handling patient care in all circumstances where a patient is transported to a hospital.

a. Transfer of care to the receiving facility is complete when:

1) The patient is moved off of the EMS gurney, and;

2) Verbal patient report is given by transporting EMS personnel and acknowledged by Emergency Department medical personnel and a signature of patient receipt is obtained in the VCePCR.

a) The signature time shall be the official transfer of care time and will be documented in eTimes.12 – Destination Patient Transfer of Care Date/Time Destination.

D. Cardiac Monitor

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

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

E. Handtevy

In the event the patient is treated, within the pediatric definition of VCEMS Policies, a complete Handtevy data transfer will be recorded and attached to the corresponding VCePCR.

F. Submission to VCEMS

1. In the following circumstances, a complete VCePCR shall be completed and posted by any transporting unit, and by FR ALS personnel retaining care, within thirty (30) minutes of arrival at destination:
    a. Any patient that falls into Step 1 or Step 2 (1.1 – 2.8) of the Ventura County Field Triage Decision Scheme
    b. Any patient that is in cardiac arrest or had a cardiac arrest with ROSC.
    c. Any patient with a STEMI positive 12 lead ECG.
    d. Any patient with a positive Cincinnati Stroke Screening (CSS +). This includes all prehospital Stroke Alerts and all prehospital ELVO alerts.
    e. Any patient that is unable to effectively communicate information regarding present or past medical history.
    f. An exception to this circumstance would be during times of EMS system overload where a delay in a unit returning to service could pose significant delays in response times.
2. For circumstances not listed above, in which the patient was transported to a hospital, the entire data set found within the VCePCR 'REPORT' tab shall be completed and electronically posted to the server by transporting agencies, and by FR ALS personnel retaining care, within thirty (30) minutes of arrival at destination. This includes all assessments, vital signs, procedures, and medications performed as part of the response.
    a. An exception to this circumstance would be during times of EMS system overload where a delay in a unit returning to service could pose significant delays in response times.

3. All other reports not falling into the above criteria shall be completed and posted to the server as soon as possible and no later than the end of shift.
4. In all circumstances in which a person is transported to a receiving hospital from the scene of an emergency, or as part of any emergent/urgent specialty care transfer (STEMI, Stroke, Trauma), the transporting personnel shall obtain and document the eOutcome.04 – Hospital Encounter Number.

G. For Refusal of EMS Services, Refer to Policy 603 for documentation requirements. Every patient contact resulting in refusal of any medical treatment and/or transport must be documented with the following information, the reason dispatched and/or chief complaint, assessment and vital signs, base hospital contact (when appropriate), patient advised to seek medical attention and completion of all applicable fields.
Signatures will be captured whenever possible by each agency at the time of patient contact/refusal. If, at any point, a signature is not obtained for any reason, explanation shall be documented in the narrative section of the VCePCR.

H. ALS Inter-facility Transfers (Acute Care Facility to Acute Care Facility)
Documentation shall be completed on all ALS Inter-facility transfers only. Documentation will include, but not be limited to, baseline assessment, medications administered, reason for transfer, procedures done to the patient, vital signs and any changes from baseline assessment.
If the transferring facility sends staff to accompany the patient, the staff member(s) name(s) shall be documented on the VCePCR.

I. The completion of any VCePCR will not delay patient transport to hospital receiving facility.

J. Patient Medical Record
The VCePCR and Ventura County Multi-Casualty Patient Record shall be considered a legal document and part of the patient's medical record.
The first responder agency, transport agency, and hospital are custodians of record. Printing should only be performed as needed, and an electronic copy of the VCePCR should be utilized and referred to

whenever feasible. A print log and reason for printing shall be monitored regularly to help ensure security of protected health information within the system.

Attachment A

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

Term	Abbreviation
5% Dextrose in Water	D5W
Abdomen	Abd
Above knee amputation	AKA
Acquired Immunodeficiency Syndrome	AIDS
Ad Libitum (as desired)	Ad lib
Advanced Life Support	ALS
Against medical advise	AMA
Alcohol	ETOH
Alert and oriented	A & O
Also known as	AKA
Altered Level Of Consciousness	ALOC
Amount	Amt
Ampule	Amp
Antecubital	AC
Anterior	Ant
Anterior/Posterior	AP
Appointment	Appt
Arterial Blood Gas	ABG
Arteriosclerotic Heart Disease	ASHD
As necessary	prn
As soon as possible	ASAP
Aspirin	ASA
At	@
Atrial Fibrillation	A fib, AF
Attention Deficit Hyperactivity Disorder	ADHD
Automated external Defibrillator	AED
Automatic Implantable Cardiac Defibrillator	AICD
Bag Valve Mask	BVM
Basic Life Support	BLS
Birth Control Pill	bcp
Bowel Movement	BM
Bundle Branch Block	BBB
By Mouth	p.o.
By Order Of	per
Cancer	CA
Carbon Dioxide	CO_2
Carbon Monoxide	CO
Cardio Pulmonary Resuscitation	CPR

Term	Abbreviation
Central Nervous System	CNS
Cerebrospinal Fluid	CSF
Cerebrovascular Accident	CVA
Cervical Spine	C-Spine
Chief Complaint	CC
Chronic Obstructive Pulmonary Disease	COPD
Circulation, Sensation, Motor	CSM
Clear	Cl
Continuous Positive Airway Pressure	CPAP
Coronary Artery Bypass Graft	CABG
Coronary Artery Disease	CAD
Date of Birth	DOB
Dead on Arrival	DOA
Defibrillated	Defib
Delirium Tremens	DTs
Diabetes Mellitus	DM
Dilation and curettage	D & C
Discontinue*	D/C*
Distal Interphalangeal Joint	DIP
Deformity, Contusion, Abrasion, Penetration, Burn, Tenderness, Laceration, Swelling	DCAPBTLS
Do Not Resuscitate	DNR
Doctor of Osteopathy	DO
Drops	gtts
Dyspnea On Exertion	DOE
Electrocardiogram	ECG
Electroencephalogram	EEG
Emergency Department	ED
Emergency Medical Services	EMS
Emergency Medical Technician	EMT
Endotracheal	ET
End-Tidal CO_2	$EtCO_2$
Equal	=
Estimated	Est
Estimated Time of Arrival	ETA
Etiology	Etiol.
Every	q

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

Term	Abbreviation
Left Lower Extremity	LLE
Left Lower Lobe	LLL
Left Lower Quadrant	LLQ
Left Upper Extremity	LUE
Left Upper Lobe	LUL
Left Upper Quadrant	LUQ
Less Than	<
Lower Extremity	LE
Lumbar Puncture	LP
Male	M
Medical Doctor	MD
Metered Dose Inhaler	MDI
Microgram	mcg
Milliequivalent	mEq
Milligram	mg
Milliliter	ml
Millimeter	mm
Minute	Min
Morning	am
Morphine Sulphate*	MS*
Motor Vehicle Collision	MVC
Mouth	MO
Moves all Extremities	MAE
Multiple Casualty Incident	MCI
Multiple sclerosis	MS
Myocardial Infarction	MI
Nasal cannula	NC
Nausea/Vomiting	NV
Negative	neg
Night	Noc
Nitroglycerin	NTG
No Acute Distress	NAD
No Known Allergies	NKA
No Known Drug Allergies	NKDA
Non Insulin Dependent Diabetes Mellitus	NIDDM
Non Rebreather Mask	NRBM
Non Steroidal Anti-inflammatory Drugs	NSAID
Normal Saline	NS
Normal Sinus Rhythm	NSR
Not applicable	NA
Nothing by Mouth	NPO
Obstetrics	OB
Occupational Therapy	OT
Oral Dissolving Tablet	ODT
Operating Room	OR
Organic Brain Syndrome	OBS
Ounce	oz
Over the Counter	OTC
Overdose	OD
Oxygen	O2
Oxygen Saturation	SpO_2
Palpable	Palp
Para, number of pregnancies	Para 1,2,3, etc
Paramedic	PM

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

Term	Abbreviation
Shortness of Breath	SOB
Sinus Bradycardia	SB
Sinus Tachycardia	ST
Sodium Bicarbonate	NaHCO3
Sodium Chloride	NaCl
Streptococcus	Strep
Subcutaneous*	SQ*
Sublingual	SL
Sudden Acute Respiratory Syndrome	SARS
Sudden Infant Death Syndrome	SIDS
Supraventricular Tachycardia	SVT
Temperature	T
Temperature, Pulse, Respiration	TPR
Three Times a Day	TID
Times	X
To Keep Open	TKO
Tracheostomy	Trach
Traffic Collision	TC
Transient Ischemic Attack	TIA
Transcutaneous Pacing	TCP
Treatment	Tx
Tuberculosis	TB
Twice a day	BID
Upper Respiratory Infection	URI
Urinary Tract Infection	UTI
Ventricular Fibrillation	VF
Ventricular Tachycardia	VT
Vital Signs	VS
Volume	Vol
Water	H20
Weight	Wt
With	w/
Within Normal Limits	WNL
Without	w/o
Wolf-Parkinson-White	WPW
Year	Yr
Years Old	y/o

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

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Trauma Care System – General Provisions		Policy Number 1400
APPROVED: Administration:	Steven L. Carroll, Paramedic	Date: December 1, 2020
APPROVED: Medical Director:	Daniel Shepherd, M.D.	Date: December 1, 2020
Origination Date: Date Revised: Date Last Reviewed: Review Date:	July 1, 2010 July 8, 2020 July 8, 2020 July 31, 2022	Effective Date: December 1, 2020

I. PURPOSE: To provide standards and guidelines for the Ventura County Trauma Care System. To provide all injured patients the accessibility to an organized, multi-disciplinary and inclusive system of trauma care. To ensure that all injured patients are taken to the time-closest and most appropriate medical facility.

II. AUTHORITY: Health and Safety Code, §1797.160, §1797.161, and §1798, and California Code of Regulations, Title 22, §100255.

III. POLICY:

A. Multi-disciplinary Nature of Systematized Trauma Care

The Ventura County EMS Agency (VCEMS) recognizes the multi-disciplinary nature of a systemized approach to trauma care. VCEMS has adopted policies, guidelines and triage criteria that provide for the coordination of all resources and ensure the accessibility to the time-closest and most appropriate medical facility for all injured patients.

B. Public Information and Education

1. VCEMS is committed to the establishment of trauma system support and the promotion of injury prevention and safety education.
2. VCEMS facilitates speakers to address public groups, and serves as a resource for trauma information/education.
3. VCEMS assists community and professional groups in the development and dissemination of education to the public on such topics as injury prevention, safety education programs and access to the Trauma Care System.

4. Each designated facility must participate in the development of public awareness and education campaigns for their service area.

C. Marketing and Advertising

1. In accordance with the Health and Safety Code, Division 2.5, no healthcare provider shall use the term "trauma facility," "trauma hospital," "trauma center," "trauma care provider," "trauma care vehicle," or similar terminology in its signs or advertisements or in printed materials and information it furnishes to the general public unless its use has been authorized by VCEMS.
2. All marketing and promotional plans, with respect to trauma center designation shall be submitted to VCEMS for review and approval, prior to implementation. Such plans will be reviewed by VCEMS, with approval or denial issued within 10 days, based on the following guidelines:
    a. Shall provide accurate information
    b. Shall not include false claims
    c. Shall not be critical of other providers
    d. Shall not include financial inducements to any providers or third parties

D. Service Areas for Hospitals

Service areas for local trauma hospitals are determined by the VCEMS policy of transporting patients to the time-closest and appropriate facility.

E. EMS Dispatching

EMS dispatching for Ventura County is provided for and coordinated through the Ventura County Fire/EMS Communications Center. The closest ALS transporting unit to an incident is dispatched, as well as BLS, and in some cases ALS, first responders.

F. Training of EMS Personnel

1. Designated facilities will provide training to hospital staff on trauma system policies and procedures.
2. Base Hospitals conduct periodic classes to orient prehospital providers to the local EMS system. Representatives from a designated trauma center may present the orientation to the Ventura County trauma system.

G. Coordination and Mutual Aid between neighboring jurisdictions

1. VCEMS will establish and maintain reciprocity agreements with neighboring EMS jurisdictions that provide for the coordination of mutual aid within those jurisdictions.
2. VCEMS works cooperatively and executes agreements, as necessary, in order to ensure that patients are transported to the time-closest and appropriate facility.
3. VCEMS maintains contact with neighboring EMS agencies in order to monitor the status of trauma care systems in surrounding jurisdictions.

H. Interfacility Transfers

1. As an inclusive trauma system, all hospitals have a role in providing trauma care to injured patients.
2. Designated trauma centers are required to establish and maintain a transfer agreement with other trauma center(s) of higher designation for the transfer of patients that require a higher level of care.
3. Transferring facilities, in conjunction with the higher-level facility, shall be responsible for obtaining the appropriate level of transportation when transferring trauma patients.

I. Pediatric Trauma Care.

Integration of pediatric hospital (s), when applicable, into the overall trauma care system to ensure that all trauma patients receive appropriate trauma care in the most expeditious manner possible

1. Designated trauma centers are required to maintain a transfer agreement with a pediatric trauma center.
2. As with all specialties, pediatric consultation should be promptly available
3. The transferring facility, in conjunction with the higher-level facility, shall be responsible for obtaining the appropriate level of care during transport.

J. Coordinating and Integration of Trauma Care with Non-Medical Emergency Services

1. VCEMS ensures that all non-medical emergency service providers are apprised of trauma system activities, as it relates to their agency/organization.
2. Non-medical emergency service providers are included in the VCEMS committee memberships, as appropriate.

3. VCEMS disseminates information to non-medical emergency service agencies through written communication, as necessary.

K. Trauma Center Fees

VCEMS has developed a fee structure that covers the direct cost of the designation process and to effectively monitor and evaluate the trauma care system. Fees are based on the direct VCEMS cost of administering the trauma care system.

L. Medical Control and Accountability

1. Each designated trauma center shall:
   a. Provide base hospital medical control for field prehospital care providers.
   b. Provide base hospital service in accordance with California Code of Regulations, Title 22, as outlined in the VCEMS Base Hospital Agreements.
   c. Participate in the VCEMS data collection system as defined by VCEMS, CEMSIS-Trauma and the National Trauma Database.
   d. Participate in the VCEMS continuous quality improvement program.

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Trauma Committees		Policy Number 1402
APPROVED: Administration:	Steven L. Carroll, Paramedic	Date: June 1, 2017
APPROVED: Medical Director:	Daniel Shepherd, MD	Date: June 1, 2017
Origination Date: Date Revised: Date Last Reviewed: Review Date:	June 9, 2011 March 29, 2017 July 8, 2020 July 31, 2023	Effective Date: June 1, 2017

I. PURPOSE: To advise the EMS Medical Director on the establishment of trauma related policies, procedures, and treatment protocols. To advise the EMS Medical Director on trauma related education, training, quality improvement, and data collection issues. To review and improve trauma care in a collaborative manner among the trauma centers in Ventura County as well as trauma centers in neighboring counties.

II. AUTHORITY: Health and Safety Code, §1797.160, §1797.161, and §1798, and California Code of Regulations, Title 22, §100255.

III. POLICY: The Ventura County Emergency Medical Services Agency (VC EMS) Medical Director shall appoint a Trauma Operational Review Committee (TORC) and Trauma Audit Committee (TAC). TORC is an advisory committee to VC EMS on issues related to trauma care. TAC is a peer review committee that conducts a process of interfacility case sharing, evaluation, and recommendations for improvement for trauma care administered to patients of the Ventura County Trauma System as well as trauma systems in neighboring counties.

IV. TRAUMA OPERATIONAL REVIEW COMMITTEE (TORC): TORC conducts systems and case review toward the goal of ensuring optimal and ongoing improvement of trauma care for patients in Ventura County. This committee strives to uphold and advance the values of an integrated, inclusive and mutually supportive trauma system.

A. TORC TASKS

1. Reviews, analyzes and proposes corrective actions for operational issues that occur within Ventura County's inclusive trauma system. Identifies problems and problem resolutions (loop closure).

2. Based on trauma system maturation and needs, recommend development and/or revisions of policies that impact trauma care.
3. Reviews interfacility transport issues, particularly problematic or recurring themes, and occasionally, specific cases. Recommends improvement measures.
4. Reviews criteria for IFT for ongoing appropriateness and recommends policy revisions when needed.
5. Reviews prehospital trauma transport statistics for appropriateness of patient destinations, system trends and educational or other needs.
6. Reviews trauma registry reports.
7. Evaluates system needs and recommends trauma education or certification courses for emergency department personnel.
8. Recommends and collaborates with other Ventura County agencies and organizations on injury prevention projects.
9. Recommends and collaborates on research efforts.
10. Recommends and conducts educational programs toward the goal of enhancing an inclusive trauma system approach in Ventura County.

B. TORC MEMBERSHIP

The membership of TORC shall be broad based regionally and represent the participants in the Trauma Care System and the regional medical community. If an individual representing a hospital or agency in a membership position is replaced with another individual, the hospital or agency shall provide written notification to VC EMS no later than two weeks before the next scheduled TORC meeting. TORC shall be chaired by the Ventura County EMS Agency Trauma System Manager. The membership of TORC includes the following:

1. Ventura County EMS Agency
    a. Medical Director
    b. Administrator
    c. Deputy Administrator
    d. Trauma System Manager
    e. Ventura County Medical Examiner
2. Ventura County Trauma Centers
    a. Hospital Administrator

b. Trauma Medical Director
c. Trauma Manager
d. Emergency Department Medical Director
e. Emergency Department Nurse Manager
f. Prehospital Liaison Physician
g. Prehospital Care Coordinator

3. Ventura County Non-Trauma Base Hospitals
   a. Hospital Administrator
   b. Emergency Department Medical Director
   c. Emergency Department Nurse Manager
   d. Prehospital Liaison Physician
   e. Prehospital Care Coordinator
4. Ventura County Receiving Hospitals
   a. Hospital Administrator
   b. Emergency Department Medical Director
   c. Emergency Department Nurse manager
5. Transport Providers
   One representative, to be selected by individual agency
6. First Responders
   One representative, to be selected by individual agency
7. Other individuals who the EMS Medical Director deems necessary, on an ad-hoc or permanent basis, and appointed by the EMS Medical Director

V. TRAUMA AUDIT COMMITTEE (TAC)

TAC is a multi-trauma center, multi-disciplinary peer review committee designed to improve trauma care by reviewing selected cases that involve exceptional saves, deaths, complications, sentinel events and other issues, with the goal of identifying issues and ensuring appropriate loop closure.

A. TAC TASKS

1. Monitors the process and outcome of trauma patient care and presents analysis of data for strategic planning of the trauma system.
2. Conducts review of cases that involve system issues or are regarded as having exceptional educational or scientific benefit.

3. For each case reviewed, provides finding of lessons learned, and when appropriate, makes recommendations regarding changes in the system to improve the process of trauma care.
4. Presents and reviews individual trauma center-specific issues with the goal of awareness, education and collaboration.
5. Identifies county and intra-county problems, issues and trends. Identifies and implements, or recommends implementation, of resolutions (loop closure).

B. TAC MEMBERSHIP

The membership shall be limited to representatives of the Ventura County Trauma Centers and trauma centers located in neighboring counties, as determined by an EMS Medical Director. If an individual representing a hospital or agency in a membership position is replaced with another individual, the hospital or agency shall provide written notification to VC EMS no later than two weeks before the next scheduled TAC meeting. TAC shall be chaired by an EMS Medical Director. The membership of TAC includes the following:

1. Ventura County EMS Agency
    a. Medical Director
    b. Administrator
    c. Deputy Administrator
    d. Trauma System Manager
    e. Administrative Assistant
2. Neighboring County EMS Agency
    a. Medical Director
    b. Administrator
    c. Trauma System Manager
3. Trauma Centers
    a. Trauma Medical Director
    b. Trauma Manager
    c. Prehospital Care Coordinator
4. Medical examiner, pathologist or physician designee from each represented county
5. Other individuals who the EMS Medical Director deems necessary, on an ad-hoc or permanent basis, and appointed by the EMS Medical Director

VI. TRAUMA COMMITTEES ATTENDANCE

Stated policy shall apply to both TORC and TAC.

A. Members of a trauma committee will notify VC EMS staff in advance of any scheduled meeting they will be unable to attend.

B. After two (2) absences in a calendar year, a member may be terminated from a trauma committee.

C. Resignation from the committee must be submitted, in writing, to the VC EMS Agency, and is effective upon receipt, unless otherwise specified.

D. The EMS Medical Director may grant special permission for other invitees to participate in the medical audit review of cases where their expertise or involvement in a specific case is essential to make appropriate determinations. Such invitees may only be present for the portions of meetings for which they have been requested to provide input.

E. The EMS Medical Director may grant special permission for guests to attend a TAC meeting for educational purposes.

F. Trauma committee meetings are closed to non-members without the pre-arranged permission of the EMS Medical Director.

VII. VOTING

Stated policy shall apply to both TORC and TAC. Due to the advisory nature of the trauma committees, most issues will require input rather than a vote process. Vote process issues will be identified as such by the TORC or TAC Chairperson. When voting is required, the majority of a committee's membership must be present.

VIII. MEETINGS

Stated policy shall apply to both TORC and TAC. The trauma committees shall be scheduled to meet as determined by committee, according to the needs of the trauma systems.

IX. MINUTES

Stated policy shall apply to both TORC and TAC.

A. Minutes regarding operational and systems issue discussions that do not include references to case presentations or protected health information shall be distributed to committees' memberships within ten business days following a meeting.

B. Due to the confidential nature of case presentations, minutes referencing specific cases and/or confidential patient information shall be distributed at the beginning

of the meeting and collected and destroyed at the close of each meeting. No copies may be made or possessed by members of the committee outside of the meeting.

X AGENDA ACTION ITEMS

A. Action items shall be assigned to one individual per hospital or agency. Each hospital or agency may determine, on a case-by-case basis, whom among their committee membership is the most appropriate to be assigned a particular action item.

B. Individuals who have been assigned action items shall submit documentation of work performed relating to the action item prior to the next scheduled meeting. Action item progress will be included in the next scheduled meeting's agenda packet.

XI. CONFIDENTIALITY

Stated policy shall apply to both TORC and TAC.

A. All proceedings, documents, and discussions of the Trauma Operational Review Committee and the Trauma Audit Committee are confidential and are covered under Sections 1040 and 1157.7 of the Evidence Code of the State of California. The prohibition relating to discovery of testimony provided to the trauma committees will be applicable to all proceedings and records of these committees, which is one established by a local government agency to monitor, evaluate, and report on the necessity, quality, and level of specialty health services, including, but not limited to, trauma care services. Issues requiring system input may be sent in total to the local EMS agency for input. Guests may be invited to discuss specific cases and issues in order to assist the committee in making final case or issue determinations. Guests may only be present for the portions of meetings they have been requested to review or testify about.

B. Trauma committee members agree to not divulge or discuss confidential patient information that would have been obtained solely through committee membership.

1. All meeting attendees will sign a meeting roster that, in addition to documenting meeting attendance, serves to affirm their agreement to uphold the trauma committee's standard of confidentiality. Rosters for TORC and TAC meetings shall include the following heading: "With certain exceptions, the proceedings and records of the Ventura County

EMS Agency (Trauma Operational Review Committee) (Trauma Audit Committee) are privileged and not subject to discovery. Records of the Committee are not subject to disclosure under the California Public Records Act, and Committee meetings are not subject to the Ralph M. Brown Act. (Cal. Evidence Code, sec. 1157.7.) Redisclosure of confidential patient information discussed in Committee proceedings is prohibited by law. (Cal. Civil Code, sec. 56.13.)"

2. A visitor, guest, or invitee who has been granted permission to attend any part of a trauma committee meeting shall sign the meeting roster that documents his/her attendance and affirms his/her agreement to uphold the committee's standard of confidentiality. The committee chairperson is responsible for assuring compliance with this requirement.

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Guidelines for Interfacility Transfer of Patients to a Trauma Center		Policy Number 1404
APPROVED: Administration:	Steven L. Carroll, Paramedic	Date: June 1, 2015
APPROVED: Medical Director:	Daniel Shepherd, M.D.	Date: June 1, 2015
Origination Date: Date Revised: Date Last Reviewed: Review Date:	July 1, 2010 March 3, 2015 March 29, 2017 March, 2020	Effective Date: June 1, 2015

I. PURPOSE: To establish guidelines for the transfer of a trauma patient from a hospital in Ventura County to a Level II trauma center.

II. AUTHORITY: Health and Safety Code, §1797.160, §1797.161, and §1798, and California Code of Regulations, Title 22, §100255.

III. DEFINITIONS:

A. **EMERGENT** Transfer: A process by which a patient with potential life-or-limb threatening traumatic injuries is transferred to a trauma center. The patient requires an immediate procedure at a trauma center, and a delay in transfer will result in deterioration of the patient's condition, and the treating physician requests immediate transport to a trauma center.

1. Trauma Call Continuation: A process by which a patient with potential life-or-limb threatening traumatic injuries who has been taken to the emergency department by ALS ambulance is transferred to a trauma center. The patient requires an immediate procedure at a trauma center, the ALS ambulance is still on the premises, and the treating physician requests immediate transport to a designated trauma center.

B. **URGENT** Transfer: A process by which a patient with time-critical traumatic injuries is transferred to a trauma center. The patient requires a timely procedure at a trauma center, and a lengthy delay will result in deterioration of the patient's condition, and the treating physician requests prompt transport to a trauma center.

IV POLICY: The following criteria will be used as a guideline for the transfer of a trauma patient to a trauma center.

A. For patients who are in the emergency department at a community hospital and have one or more of the following injuries, if the referring physician requests transfer to a trauma center, the trauma center will immediately accept the patient.
   1. Carotid or vertebral arterial injury
   2. Torn thoracic aorta or great vessel
   3. Cardiac rupture
   4. Bilateral pulmonary contusion with PaO2 to FiO2 ratio less than 200
   5. Major abdominal vascular injury
   6. Grade IV, V or VI liver injuries
   7. Grade III, IV or V spleen injuries
   8. Unstable pelvic fracture
   9. Fracture or dislocation with neurovascular compromise
   10. Penetrating injury or open fracture of the skull
   11. Glasgow Coma Scale score <14 or lateralizing neurologic signs
   12. Unstable spinal fracture or spinal cord deficit
   13. >2 unilateral rib fractures or bilateral rib fractures with pulmonary contusion
   14. Open long bone fracture
   15. Significant torso injury with advanced co-morbid disease (such as coronary artery disease, chronic obstructive pulmonary disease, type 1 diabetes mellitus, or immunosuppression)
   16. Amputations or partial amputations of any portion of the hand[1]
   17. Injury to the globe at risk for vision loss[2]

B. Ventura County Level II Trauma Centers:
   1. Agree to immediately accept from Ventura County community hospitals, patients with conditions included in the guidelines above.
   2. Will publish a point-of-contact phone number for an individual authorized to accept the transfer of a patient with a condition included in the guidelines above, or to request consultation with a trauma surgeon.
   3. Will establish a written interfacility transfer agreement with every hospital in Ventura County.
   4. Immediately post on ReddiNet and notify EMS Administrator on-call when there is no capacity to accept trauma patients due to:
      a. Diversion for internal disaster
      b. CT scanner(s) non-operational

c. Primary and back-up trauma surgeons in operating rooms with trauma patients

C. Community Hospitals:

1. Are not required to transfer patients with conditions included in the guidelines above to a trauma center when resources and capabilities for providing care exist at their facility.
2. Will enter into a written interfacility transfer agreement with every trauma center in Ventura County.

D. **EMERGENT** Transfers

1. **EMERGENT** transfers are indicated for patients with life-or-limb threatening injuries in need of emergency procedures at a trauma center. Criteria **MUST** include at least one of the following:
   a. Indications for an immediate neurosurgical procedure.
   b. Penetrating gunshot wounds to head or torso.
   c. Penetrating or blunt injury with shock.
   d. Vascular injuries that cannot be stabilized and are at risk of hemorrhagic shock or loss of limb acutely (excluding fingers/toes).
   e. Pregnancy with indications for an immediate Cesarean section.
2. For **EMERGENT** transfers, trauma centers will:

a. Publish a single phone number ("hotline"), that is answered 24/7, for an individual authorized to accept the transfer of patients who have a condition as described in Section D.1 of this policy.

b. Immediately upon initial notification by a transferring physician, accept in transfer all patients who have a condition as described in Section D.1 of this policy.

3. For **EMERGENT** transfers, community hospitals will:
   a Assemble and maintain a "Emergency Transfer Pack" in the emergency department to contain all of the following:
      1. Checklist with phone numbers of Ventura County trauma centers.
      2. Patient consent/transfer forms.
      3. Treatment summary sheet.
      4. Ventura County EMS "Emergency Trauma Patient Transfer QI Form."

b. Have policies, procedures, and a quality improvement system in place to track and review all **EMERGENT** transfers and Trauma Call Continuations.

c. Maintain an ambulance arrival to emergency department (ED) departure time of no longer than ten minutes.

d. Establish policies and procedures to make personnel available, when needed, to accompany the patient during the transfer to the trauma center.

4. For **EMERGENT** transfers, Ventura County Fire Communications Center (FCC) will:

a. Respond to an **EMERGENT** transfer request by immediately dispatching the closest available ALS ambulance to the requesting hospital.

b. Consider Trauma Call Continuation transfers to be a follow-up to the original incident, and will link the trauma transfer fire incident number to the original 911 fire incident number.

5. For **EMERGENT** transfers, ambulance companies will:

a. Respond immediately upon request.

b. For "Trauma Call Continuation" requests, immediately transport the patient to a trauma center with the same ALS personnel and vehicle that originally transported the patient to the community hospital.

c. Not be required to consider **EMERGENT** transports as an "interfacility transport" as it pertains to ambulance contract compliance.

E. **URGENT** Transfers

1. **URGENT** transfers are indicated for patients with time-critical injuries in need of timely procedures at a trauma center.

2. For **URGENT** transfers, trauma centers will:

a. Publish a single phone number, that is answered 24/7, for a community hospital to request an urgent trauma transfer. Additionally, this line may be used to request additional consultation with a trauma surgeon if needed

3. For **URGENT** transfers, community hospitals will:

a. Maintain an ambulance arrival to emergency department (ED) departure time of no longer than twenty minutes.

4. For **URGENT** transfers, ambulance companies will:
    a. Arrive at the requesting ED no later than thirty minutes from the time the request was received.

V. PROCEDURE:

A. **EMERGENT** Transfers

1. After discussion with the patient, the transferring hospital will:
    a. Call the trauma hotline of the closest trauma center to notify of the transfer.
    b. Call FCC, advise they have an **EMERGENT** transfer, and request an ambulance. If the patient's clinical condition warrants, the transferring hospital will call FCC *before* calling the trauma center's hotline.
    c. Complete transfer consent and treatment summary.
    d. Prepare copies of the ED triage assessment form and demographic information form.
2. Upon request for an **EMERGENT** transfer, the dispatch center will dispatch the closest ALS ambulance and verbalize "MEDxxx E MERGENCY Trauma Transfer from [transferring hospital]". The trauma center will be denoted in the incident comments, which will display on the mobile data computer (MDC). If a unit does not have an operational MDC, the transferring hospital will advise the responding ambulance personnel of the destination trauma center.
3. Upon notification, the ambulance will respond Code (lights and siren).
4. FCC will track ambulance dispatch, enroute, on scene, en-route hospital, at hospital, and available times.
5. The patient shall be emergently transferred without delay. Every effort will be made to limit ambulance on-scene time in the transferring hospital ED to ten minutes.
    a. All forms should be completed prior to ambulance arrival.
    b. Any diagnostic test or radiologic study results may either be relayed to the trauma center at a later time, or if time permits, copied and sent with the patient to the trauma center.
    c. Intravenous drips may be discontinued or remain on the ED pump.
    d. The transporting paramedic will contact the trauma base hospital enroute and provide updated patient information.

B. Trauma Call Continuation

1. Upon determination of a Trauma Call Continuation, and after discussion with the patient, the community hospital will:
    a. Direct the ambulance personnel to prepare to continue the transport to the trauma center.
    b. Notify the designated trauma center ED of the immediate re-triage of a trauma patient, and communicate the patient's apparent injuries or reason for the re-triage, after the call is continued and the patient is enroute to the trauma center.
2. Upon notification of Trauma Call Continuation, the ambulance personnel will notify FCC of their assignment to a Trauma Call Continuation. FCC will link the trauma transfer to the original 911 incident and continue tracking en-route hospital (departure from community hospital), at hospital (arrival at trauma center) and available times.
3. When the transferring physician determines the patient is ready and directs ambulance personnel to continue the transport, the ambulance will emergently transport the patient to the trauma center. The transporting paramedic will contact the trauma base hospital enroute and provide updated patient information.

C. **URGENT** Transfers

1. After discussion with the patient, the transferring hospital will:
    a. Call the trauma hotline for the closest trauma center to request an urgent trauma transfer. This call may be used to request additional consultation with the trauma surgeon if needed.
    b. Call the transport provider to request an ambulance.
    c. Complete transfer consent and treatment summary.
    d. Prepare copies of the ED triage assessment form.
    e. Limit ambulance on-scene time in the transferring hospital ED to twenty minutes.
2. Upon request for an Urgent transfer, the transport provider will dispatch an ambulance to arrive no later than thirty minutes after the request.

D. For all **EMERGENT** transfers, the transferring hospital will submit a completed Emergency Trauma Patient Transfer QI Form to the Ventura County EMS Agency within 72 hours. The transfer will be reviewed for appropriate and timely care and

to identify opportunities for improvement. Results will be reviewed and discussed at the Countywide EMS Trauma Operational Review Committee.

[1]For patients with isolated traumatic amputations or partial amputations of any portion of the hand, a community hospital may elect to transfer the patient to a Ventura County trauma center for potential replantation surgery. In these circumstances, the community hospital shall contact Los Robles Hospital and Medical Center (LRHMC) to determine the availability of a hand surgeon trained in microvascular replantation surgery. If a specialty hand surgeon is available the patient shall be preferentially transferred to LRHMC.

[2]Patients with isolated eye injuries needing transfer to a trauma center for potential ophthalmologic surgery shall be preferentially transferred to Ventura County Medical Center.

Emergent and Urgent Trauma Transfer QI Form

Use Link:

Emergent and Urgent trauma Transfer QI form

-OR-

Scan QR Code:

Ventura County Trauma Centers

Trauma Hotlines

LRHMC (805) 370-5901

VCMC (805) 652-6777

TRAUMA CALL Continuation

Immediate re-triage of a trauma patient by the ER physician

Ambulance crew notifies dispatch of Trauma Call Continuation

Patient remains with same ambulance crew and is placed back in ambulance and continues to trauma center per ER physician direction

EMERGENT Trauma Transfer

Immediate life-threatening condition

*****Call Trauma Hotline**

If Clinical condition warrants, call FCC to request ambulance ***before calling Trauma Hotline

Call Fire Communications Center (FCC) for an ambulance (***Emergent*** Trauma Transfer) (805) 384-1500

Ambulance arrival to departure at sending ED no longer than ***10 minutes***

URGENT Trauma Transfer

OK to wait up to 30 minutes for ambulance

Call Trauma Hotline

VCMC ONLY: If trauma surgeon has not responded within 15 minutes, call trauma hotline again

Call transport provider for ambulance (***Urgent*** Trauma Transfer)

AMR/GCA (805) 485 -1231

Lifeline (805) 653- 5578

Ambulance arrival to departure at sending ED no longer than ***20 minutes***

Updated 10/2020

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Trauma Center Standards		Policy Number 1406
APPROVED: Administration:	Steven L. Carroll, Paramedic	Date: December 1, 2020
APPROVED: Medical Director:	Daniel Shepherd, M.D.	Date: December 1, 2020
Origination Date: Date Revised: Date Last Reviewed: Review Date:	July 1, 2010 July 8, 2020 July 8, 2020 July 31, 2022	Effective Date: December 1, 2020

I. PURPOSE: To establish Ventura County Trauma Center facility and personnel standards for trauma patient care. To obtain and maintain designation as a Level II Trauma Center, the Trauma Center shall be in compliance with the standards contained in this policy.

II. AUTHORITY: Health and Safety Code, § 1798, 1798.165 and 1798.170, California Code of Regulations, Title 22, Division 9, Chapter 7.

III. DEFINITIONS:

A. "On-site" means being physically present within the patient treatment area at all times.

B. "In-house" means being physically present in the trauma center and responding immediately upon trauma team activation. Arrive to the patient treatment area within ten (10) minutes of placement of call with a minimum documented compliance rate of 80% for each calendar month, and in no case greater than fifteen (15) minutes from time call is placed.

C. "Immediately available" means: a) dedicated to the trauma center while on duty, b) unencumbered by conflicting duties or responsibilities; c) responding without delay when notified; and d) being physically present within the patient treatment area when the patient arrives or within fifteen (15) minutes of placement of call, whichever is later, and not to exceed fifteen (15) minutes from patient arrival, with a minimum documented compliance rate of 80% for each calendar month, and in no case greater than thirty (30) minutes from time call is placed.

D. "Promptly available" means arrival to the patient treatment area within thirty (30) minutes with a minimum documented compliance rate of 80% for each calendar month, and in no case greater than forty-five (45) minutes, from time call is placed.

E. "On-call" requires the specified healthcare professional to be available to respond for trauma care in a defined manner and time period (i.e., immediately available, promptly available).

IV. POLICY:

A. General Provisions

1. California Statutes and Regulations: Trauma Centers will meet all applicable requirements set forth in California Health and Safety Code, Division 2.5, Chapter 6, Article 2.5 and California Code of Regulations, Title 22, Division 9, Chapter 7.
2. American College of Surgeons Committee on Trauma (ACS-COT) standards:
   a. Trauma Centers will obtain within three (3) years of designation by VCEMS, and continuously maintain, ACS-COT Level II Trauma Center verification.
   b. Trauma Centers are required to continuously comply with ACS-COT trauma center verification standards, as determined by VCEMS through the QI program and other oversight activities.
3. VCEMS may establish standards that exceed the requirements above.

B. Trauma System Activation

Trauma centers will accept all patients that meet trauma triage criteria, as described in VCEMS Policy 1405, except when on diversion per VCEMS Policy 402.

C Interfacility Transfers

1. As an inclusive trauma system, all hospitals will have a role in providing trauma care to injured patients. All Ventura County trauma centers are required to establish and maintain transfer agreements with each of the Ventura County hospitals.
2. The trauma center is obligated to immediately accept all patients who meet trauma transfer criteria from hospitals in Ventura County per VCEMS Policy 1404.
3. To initiate a transfer, a call shall be placed by the transferring hospital emergency physician or surgeon to the trauma center on-call trauma surgeon or designee. The verbal report for transfer shall be physician to physician.

4. The transferring hospital, in consultation with the trauma center, will be responsible for obtaining the appropriate level of transportation. Consideration of transport modality (e.g., ground vs. air) should be a collaborative decision between transferring hospital and the trauma center.

D. Response Requirements:

Staff response times will be documented in the patient care record and trauma registry for VCEMS review.

1. Surgical Service:
   Availability: an operating suite that is continuously available or being utilized for trauma patients and has operating staff who are on-call and promptly available unless operating on trauma patients, and back-up personnel who are promptly available.
2. General Surgeon:
   a. Availability: On-call and immediately available for highest level of trauma team activation, and available within one (1) hour of the time of call for other trauma team activations or consultation when requested by the emergency physician.
   b. Advised of all trauma patient admissions;
   c. Participate in major therapeutic decisions;
   d. Present in the emergency department for all major trauma resuscitations; and
   e. Present in the operating room for all procedures.
3. Emergency Medicine:
   Availability: On-Site
4. Respiratory Therapist:
   Availability: In House
5. Radiology Technician:
   Availability: In House
6. CT Technician:
   Availability: On call and immediately available
7. Radiologist:
   Availability: On-call and promptly available
8. Interventional Radiology Service and Interventional Radiologist

a. Includes diagnostic and therapeutic procedures

b. Availability: On-call and promptly available

9. Ultrasound Service

   Availability: On-call and promptly available

10. Anesthesiology:

    Availability: On call and promptly available

11. Clinical Laboratory:

    Availability: On-Site (within the lab)

12. Neurosurgery:

    Availability: On-call and promptly available

13. OB/GYN Service:

    Availability: On-call and promptly available

14. Orthopedics:

    Availability: On-call and promptly available

15. Ophthalmologist:

    Availability: On-call and promptly available

16. Oral or Maxillofacial, **or** Head and Neck Service:

    Availability: On-call and promptly available

17. Plastic Surgery:

    Availability: On-call and promptly available

18. Reimplantation/Microsurgery:

    a. Availability: On-call and promptly available

    b. If reimplantation/microsurgery is provided via a transfer agreement, the patient shall be transferred out within one (1) hour of arrival at that trauma center, unless other life threatening conditions take precedent as determined by the staff trauma surgeon. If transfer is delayed the reason(s) must be documented in the patient's chart.

19. Urologist

    Availability: On-call and promptly available

20. Thoracic Surgery:

    Availability: On-call and promptly available

21. Critical Care Services:

    Availability: On-site within the critical care area

22. Critical Care Physician

    Availability: On-call and promptly available

23. Cardiac Surgery:

    a. Availability: On-call and promptly available if cardiac surgery is available at the trauma center

    b. If cardiac surgery is provided via a transfer agreement, the patient shall be transferred out within one (1) hour of arrival at that trauma center, unless other life threatening conditions take precedent as determined by the staff trauma surgeon. If transfer is delayed, the reason(s) must be documented in the patient's chart.

24. Additional Specialty Services:

    a. Burn Center. These services may be provided through a written transfer agreement with a burn center.

    b. Acute hemodialysis capability.

    c. Acute spinal cord injury management capability. This service may be provided through a written transfer agreement with a rehabilitation center.

    d. A pediatric intensive care unit approved by the California State Department of Health Services' California Children Services (CCS); or a written transfer agreement with an approved pediatric intensive care unit. Hospitals without pediatric intensive care units shall establish and utilize written criteria for consultation and transfer of pediatric patients needing intensive care

25. Available Consultations:

    The following specialist(s) or specialty service(s) will be available for consultation and respond by phone to a call within thirty (30) minutes.

    a. Cardiology

    b. Gastroenterology

    c. Hand Surgery

    d. Hematology

    e. Infectious Diseases

    f. Internal Medicine

    g. Nephrology

    h. Neurology

i. Pathology

j. Pulmonary Medicine

E. Heliport

Trauma Centers are required to operate and maintain a State-permitted heliport, on or immediately adjacent to the hospital, as described in California Code of Regulations Title 21, § 3554.

F. Prehospital Personnel

1. Trauma centers will have a written agreement with the Ventura College School of Prehospital and Emergency Medicine that allows paramedic students to schedule and experience their clinical rotations at the trauma center, as well as perform clinical procedures (e.g., endotracheal intubation, intravenous access) on patients.
2. Trauma centers will allow EMT and paramedic personnel to perform clinical skills for continuing education and remediation purposes as directed by the VCEMS CQI program.

G. Base Hospital

1. Trauma Centers must be designated by VCEMS as a Base Hospital and comply with all requirements in VCEMS Policy 410.
2. Trauma Centers must employ a minimum of one FTE Prehospital Care Coordinator.