In-person **2240 E. Gonzales Road #200** **Oxnard, CA**	Pre-hospital Services Committee Agenda	April 10, 2025 9:30 a.m.

I.	**Introductions**	
II.	**Approve Agenda**	
III.	**Minutes**	
IV.	**Medical Director Report – Dr. Shepherd**	
	A. Buprenorphine B. Safety Event Reports C. Cardiac Arrest Survival	
	D. Recognition Awards	
V.	**New Business or Policies for Review *with Proposed Changes***	
	A. 606 – Determination of Death	Kyle Culkin/Andrew Casey
	B. 705.01 – Trauma Treatment Guidelines	Dr. Shepherd/Andrew Casey
	C. 705.14 – Hypovolemic Shock	Dr. Shepherd/Andrew Casey
	D. 705.29 – Traumatic Cardiac Arrest	Dr. Shepherd/Andrew Casey
	E. XXX – Transfusion of Blood Products	Dr. Shepherd/Andrew Casey
	F. 1131 – Continuing Education – Case Review	Andrew Casey
VI.	**Old Business**	
	A. 321 – MICN Authorization Criteria	Adriane Gil-Stefansen
	B. 322 - MICN Reauthorization Requirements	Adriane Gil-Stefansen
	C. 324 – MICN Authorization Reactivation	Adriane Gil-Stefansen
VII.	**Informational/Discussion Topics or Policies Approved at Specialty Care Committees**	
	A. 705.11 – Crush Injury	Kyle Culkin
	B. 734 – TXA Administration	Kyle Culkin
VIII.	**Policies Due for Review (*No proposed changes*)**	
IX.	**Agency Reports**	
	A. Fire Departments	
	B. Ambulance Providers	
	C. Base Hospitals	
	D. Receiving Hospitals	
	E. Law Enforcement	
	F. ALS Education Program-Ventura College	
	G. ALS Education Program-Moorpark College	
	H. EMS Agency	
	I. Other	
X.	Closing	

In Person 2240 E. Gonzales rd. #200 Oxnard	Pre-hospital Services Committee Minutes	February 13, 2025 9:30 a.m.

Topic	Discussion	Action	Approval
I. Introductions	Kristin Shorts (AHSV) introduced Katlin Heinicke as the new Emergency Room Supervisor.	Welcome	
II. Approve Agenda		Approved	Motion: Tom O'Connor Seconded: Dr. Todd Larsen Passed: Unanimous
III. Minutes		Approved	Motion: Tom O'Connor Seconded: Dr. Todd Larsen Passed: Unanimous
IV. Recognition Awards			
V. **Medical Director Report**	Dr. Daniel Shepherd (VCEMSA)		
A. Buprenorphine	Waiting on delivery of medication.		
B. Whole Blood	Project moving forward, working on admin side and VCMC, county council.		
C. Safety Event Reports	Andrew and Adriane are working through backlog, discharged quite a few that were mechanical or low acuity. Andrew states 2-3 a week, testing ways of directly sharing. Dr. Shepherd - one consistent theme is VERSED med errors.		
D. Cardiac Arrest Survival	Andrew Casey, VCEMSA – keeping survival rates more current and presenting to PSC throughout the year. End of year numbers: Bystander 47% CPR performed or attempted AED bystander-used by 5.7% Overall survival rate of 599 patients is 9% Very important to get outcomes to the crews Dr. Shepherd - Cam refresher in the spring, will bring policies to the group and do multi-agency trainings.		
VI. New Business			
A. Hospital Area Command Training	Chris Rosa (VCEMSA) – Sent out flyer for chief Greg Castle, does presentations on HAC. March 5th 1-4pm. Chief Scott Quirarte, VCFD – What started this was HAZMAT, how can we find better ways to coordinate the response, working together better.		
VII. Old Business			
A. None			
VIII. Informational			

A. 0452 - TCASC Standards	Adriane Gil-Stefansen (VCEMSA) – Brought to stroke committee to renumber regulation codes, no changes to the policy.		
B. 1401 - Trauma Center Designation	Kyle Culkin (VCEMSA) – Up for review, minor changes. Dr. Shepherd – needed an overhaul, didn't reflect the process, be more specific, old language was removed.		
C. 1403 - Trauma Registry and Data	Kyle Culkin – Only changes were the title 22 and the dates.		
D. 1405 - Field Triage Decision Scheme	Kyle Culkin – Only changes were the title 22 and the dates.		
E. 1406 – Trauma Center Standards	Kyle Culkin – Only changes were the title 22 and the dates.		
IX. Policies for review			
A. 0319 – Paramedic Preceptor	Chris Rosa – as of right now it's still two years, will update the regulations to fall in line with the new coding.	Approved	Motion: Dr. Ira Tilles Seconded: Dr. Todd Larsen Passed: Unanimous
B. 0321 – MICN Authorization Criteria	Chris Rosa – no proposed changes. Tom O'Connor (VCCCD)- MCI training is now basic training? Rosa will check for error.	Approved	Motion: Dr. Ira Tilles Seconded: Kristen Shorts Passed: Unanimous
C. 0322 – MICN Reauthorization Requirements	Chris Rosa – PCC has approached over the last couple years regarding field care audit. Only proposed changes is removing the requirement of 12 hours to miscellaneous hours to line up better to what paramedics are required. The mandate of 12 hours puts pressure on the agencies, flexibility would be a better thing. Dr. Todd Larsen (SJH) – Do we want to put pressure on the PCCs? It drives attendance. Would like to propose 4 hours for two years. Kristen Shorts – The paramedic and MICN requirements are so different just trying to meet in the middle. Chris Rosa – review cycles, everything changed during covid, paramedic policy was changed. Adriane Gil-Stefansen – gives them more flexible to go after the classes they are more interested in. Heather Ellis (VFD) – will share dates to field audits Minor - Putting the requirement, we have to have more opportunity to attend. Erica Gregson (VCFD) – case reviews and whys are important, but not what field care audit is intended? Dr. Thomas Duncan (VCMC) – are there national guidelines? No	Chris Rosa will put together a committee to address the CE education portion of policy 0322 and 0323 – these policies will be brought back to PSC at a later date.	Motion: N/A Seconded: N/A Passed: Unanimous

	Chris Rosa – put group together to go over what Erica is talking about and adjust the policies as a group. We've been doing it since covid its optional, get it done, its awesome. Tom Gallegos (VCMC) – field care audits are valuable.		
D. 0324 – MICN Authorization Reactivation		Tabled	Motion: Seconded: Passed: Unanimous
E. 0613 – Do Not Resuscitate (DNR)	No proposed changes.	Approved	Motion: Dr. Ira Tilles Seconded: Tom O'Connor Passed: Unanimous
F. 0625 - POLST	No proposed changes.	Approved	Motion: Tom O'Connor Seconded: Kristen Shorts Passed: Unanimous
G. 705.02 – Allergic Reaction and Anaphylaxis	No proposed changes. Tom O'Connor – format changes.	Approved	Motion: Tom O'Connor Seconded: Kristen Shorts Passed: Unanimous
H. 705.21 – Shortness of Breath – Pulmonary Edema	No proposed changes. Tom O'Connor – format changes.	Approved	Motion: Tom O'Connor Seconded: Kristen Shorts Passed: Unanimous
I. 705.29 – Traumatic Cardiac Arrest	No proposed changes. Tom O'Connor – minor format changes. Andrew Casey – update BP to 90.	Approved	Motion: Tom O'Connor Seconded: Kristen Shorts Passed: Unanimous
X. Agency Reports			
A. Fire departments	**VCFD** – Chief Dullam – Academy started (33), going through EMT recert, whole blood training soon, if anyone needs the bup training we have two more let Erica know. **VFD** – Heather Ellis – have Conejo Health do ride-alongs, encourage you to do so. Lifepak 35 coming in March, 3/24 roll-out date. Please meet with the Ventura County Ombudsman, really trying to tackle the fall issue. Please engage with them. New academy start (8) in additional to that lateral academy in June. Station 7 making progress. **OFD –** Jaime Villa - Few medics left (3) go to other agencies. EMS Corps is full steam ahead. Week two, we have 20 in this cohort. Started EMT instruction this week. Teaching life skills. AMLS training in the near future, will make additional spots available to the group. Let us know if you need teach backs. Sign up list coming out for anyone that wants to come do skills, bigger request is mentoring. Need all healthcare industry. Putting together a 4-8 week mentorship program being put together.		

	VFF – Not present. **FFD** – John Everlove - Academy (20) going on now.		
B. Transport Providers	**AMR/GCA/LMT** – Jeffrey Schultz – interview and hire folks, upstaffing an extra unit in SV/TO. Couple new ambulances going into service soon. Between 7-12 out of county transfers a day. Winters – end of month moving to new IFT/CAD, bear with dispatchers in transition going live 03/01. Dr. Tilles will no longer be the medical director for AMR, Dr. Hutchinson will take over at 03/01. AMR want to have a more regional approach. **All Town** – Eric Eckels – Just lost 30% EMTs going to paramedic school, hiring.		
C. Base Hospitals	**AHSV** – Kristen Shorts – Spring MICN class date for April/May, will be looking for instructors. Thank you for attending our human trafficking lecture. **LRRMC** – Michelle Barry - Construction continues, looking to do educational seminar and will reach out to the group, sending 3 students to AHSV MICN class, thank you to AMR for helping during the surge, field care audit 3/13. How long is the mandatory diversion going to continue? To be clear, patient requests should be honored when volume allows? Chris Rosa – Yes. Steve Carroll (VCEMSA)– same volume as during COVID, likely to not rescind that for another few months. We would like to eventually get rid of diversion all together. Diversion has a purpose but does not help when everyone is busy. Likely will continue until late spring. **SJRMC –** Kyle Blum – April will be hosting Girl Scouts of Central Coast, will reach out for touch a truck. **VCMC** – Tom Gallegos – finally opened parking lot so regular ambulance route is back to normal, helipad is functional.		
D. Receiving Hospitals	**SJHC** – Katelyn Yanes - PV approved for a waiver inside, double occupancy upstairs. **SPH** – Updating the CARE system. **CMH** / **OVCH** – Nothing to report.		
E. Law Enforcement	**AIR RESCUE** – Significant leader changes, Kelly Roark is promoted, Jacobs new sergeant for all of SAR, Dana Paris has stepped down, AMR medic Dom Savage will take over her spot. Thank you to Dana for her many years of service! **VCSO –** Not present. **CSUCI PD** – Not present.		

	Parks – N/A		
F. ALS Education Programs	**Ventura College** – NAEMT training site approved. Paramedic class 29 preparing for internship, 30 is doing well on condensed format, class 31 started orientation. Thank you to all the clinical providers. **Moorpark College** – Everlove – Thank you to clinical providers, our EMT programs were impacted playing catch and up and accelerated. Hospitals changing are not accepting clinical contracts (example West Hills) and will be reaching out for more hours.		
G. EMS Agency	**Rosa** – How many people are getting the VCHCC emails? We send out consistent messaging, we want to make sure you are getting the info you need. Another thing, we received Dr. Brandon Trap, medical director for SpaceX, they are moving their crewed operations off Southern California from Florida, very early stages of planning. Primary hospital will be UCLA, back up site. **Frey** – May 3rd Ride for the Blue is coming, bunch of guys on motorcycles. Everyone is invited, all emergency vehicles invited. Hospitals and other agencies we ask you meet at one of the stops. They want to say thank you to responders! Biggest stop is in Oxnard. April is a concert at the Camarillo Airport. AJ – March 5th, Trauma Grand Rounds – Focus on Whole Blood. Please share far and wide. **Carroll** – Karen Beatty retired; we are not able to replace her actual position. Kyle Culkin will be taking on a lot of her duties. Thank you Kyle for taking on this new role. After what seems like many years, we have all the stroke and STEMI contracts approved and went into effect last December. CEOs will be presenting the RFP at next board meeting, Feb 25th, then it goes to the state for approval. Also proposing an EMCC, required if we want to establish certain programs like community paramedic, etc. Review committee for future ambulance contracts. It would replace existing EMS Advisory Committee. Brown Act Committee, public transparency, probably doing quarterly on same day at PSC, PSC would meet 8 times a year/EMCC would meet quarterly. The board appoints committee members for the EMCC. . Last week we extended AMR/GCA contracts to June 2026. EMSAAC conference May 27-29th. MedTrans Ambulance – approved back in November, issued an operating license they have not officially started in the county yet, they are moving the station to Newbury Park with two BLS ambulances after inspection. Looking CCP RN?		
H. Other	Gillette – Thank you for coordinating, Ophthalmologist Dr. Linden Boss. Thank you for human kindness, people do matter. Ellis – Hope has been doing a lot of debrief work, can contact me and I can bring her in.		
XI. Closing	**Meeting adjourned at 11:24am** Meeting audio recording and transcript available upon request.		Motion: Dr. Larsen Seconded: Dr. Tilles Passed: Unanimous

COUNTY OF VENTURA HEALTH CARE AGENCY	EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Withholding or Termination of Resuscitation and Determination of Death	Policy Number: 606
APPROVED: Administration: Steven L. Carroll, Paramedic	Date: December 1, 2021
APPROVED: Medical Director Daniel Shepherd, M.D.	Date: December 1, 2021
Origination Date: June 1984 Date Revised: ~~October 14, 2021~~April 10th, 2025 Date Last Reviewed: ~~October 14, 2021~~April 10th, 2025 Next Review Date: October 31, 2025~~3~~	Effective Date: December 1, 2021

Formatted: Superscript

Formatted: Superscript

I. PURPOSE: To establish criteria for withholding or termination of resuscitation and determination of death by prehospital EMS personnel.

II. AUTHORITY: Health and Safety Code, Division 2.5, Sections 1797.220,1798 and 7180. Government Code 27491 and 27491.2. California Code of Regulations, Title 22, Division 9, Section 100175.

III. POLICY: EMS Personnel may withhold or terminate resuscitation, determine that a patient is dead, and leave the body in custody of medical or law enforcement personnel, according to the procedures outlined in this policy.

IV. DEFINITION:

1. EMS Personnel: All EMTs, Paramedics and RNs caring for prehospital or interfacility transfer patients as part of the Ventura County EMS system.
2. Further Assessment: refers to a methodical evaluation for signs/symptoms of life in the apparently deceased person. This evaluation includes examination of the respiratory, cardiac and neurological systems, and a determination of the presence or absence of rigor mortis and dependent lividity. The patient who displays any signs of life during the course of this assessment may NOT be determined to be dead.
3. Hospital: A licensed health care institution that provides acute medical care.
4. Skilled Nursing Facility: A licensed health care institution that provides non-acute care for elderly or chronically ill patients and has licensed medical personnel on scene (RN or LVN).
5. Hospice: A care program into which terminally ill patients may be enrolled, to assist with the management of palliative care during the terminal stages of illness.

V. PROCEDURE:

A. General Guidelines:

1. The highest medical authority on scene shall determine death in the field.
   a. If BLS responders have any questions or uncertainty regarding determination of death, BLS measures shall be instituted until arrival of ALS personnel.
   b. If ALS responders have questions or uncertainty regarding determination of death, ALS measures shall be instituted until base hospital contact is made and orders received.
2. EMS Personnel who have determined death in the field in accordance with the parameters of this policy are not required to make base hospital contact.
3. EMS Personnel who arrive on scene after the patient is determined to be dead shall not re-evaluate the patient.

PATIENTS WHO ARE OBVIOUSLY DEAD

Upon arrival, EMS Personnel shall rapidly assess the patient. For patients suffering any of the following conditions, no further assessment is required. No treatment shall be started and the patient shall be determined to be dead.

- Decapitation,
- Incineration,
- Hemicorporectomy, ~~or~~
- Decomposition,
- Extrusion of brain matter~~.~~

PATIENTS WHO APPEAR TO BE DEAD
(WITH Rigor Mortis and/or Dependent Lividity)

B. Patients who are apneic and pulseless require further assessment as described in Table 1.

1. If rigor mortis and/or dependent lividity are present, and if no response to assessment procedures, the patient shall be determined to be dead.
2. Rigor mortis is determined by checking the jaw and other joints for rigidity.

3. Dependent lividity is determined by checking dependent areas of the body for purplish-red discoloration.

Table 1

CATEGORY	ASSESSMENT PROCEDURES	FINDINGS FOR DETERMINATION OF DEATH
Respiratory	Open the patient's airway. Auscultate lungs or feel for breaths while observing the chest for movement for a minimum of 30 seconds	No spontaneous breathing. No breath sounds on auscultation.
Cardiac	Palpate the carotid artery (brachial for infant) for a minimum of 1 minute. Auscultate for heart sounds for minimum of 1 minute. OR **ALS ONLY-** Monitor the patient's cardiac rhythm for minimum of 1 minute. Check asystole in 2 leads. Obtain a 6-second strip to be retained with the EMS provider's documentation.	No pulse. No heart sounds.
Neurological	Check for pupil response to light. Check for response to painful stimuli.	No pupillary response. No response to painful stimuli

1. While in the process of the assessment procedures, if any response indicates signs of life, resuscitation measures shall take place immediately.
2. **If rigor mortis and/or dependent lividity are present**, and if no response to assessment procedures, the patient shall be determined to be dead.

PATIENTS WHO APPEAR TO BE DEAD:
(WITHOUT Rigor Mortis and/or DEPENDENT LIVIDITY)

C. Patients who appear to be dead but display no signs of rigor mortis and/or dependent lividity shall have the cause of apparent death determined to be **MEDICAL** (including drowning, ingestion, asphyxiation, hanging, poisoning, lightning strikes, and electrocution), or **TRAUMATIC** (and injuries are sufficient to cause death).

1. **MEDICAL ETIOLOGY**: Resuscitation measures shall take place.
2. **TRAUMATIC ETIOLOGY**: Further assessment as defined in Table 1 shall be performed. If no response to assessment procedures, the patient's age

should be determined. (reasonable estimation appropriate if positive determination of age is not possible)

a. For patients younger than 18 years of age, resuscitation measures, including transport to the closest trauma center, shall take place.

b. For patients 18 years or older:

1) BLS RESPONDERS:

a) If the time from **initial determination** of pulselessness and apnea until trauma center arrival is estimated to be less than 20 minutes, resuscitation measures, including transport to the closest trauma center, shall take place.

b) If the time from **initial determination** of pulselessness and apnea until trauma center arrival is estimated to be 20 minutes or more, the patient may be determined to be dead.

2) **ALS RESPONDERS:**

a) If the time from **initial determination** of pulselessness and apnea until trauma center arrival is estimated to be less than 20 minutes, using a cardiac monitor, the patient's rhythm should be assessed.

(1) If the rhythm is narrow complex PEA, wide complex PEA greater than 30 beats per minute, ventricular tachycardia or ventricular fibrillation, resuscitation measures, including immediate transport to the closest trauma center, shall take place.

(2) If the rhythm is asystole or wide complex PEA at a rate of 30 beats per minute or slower, the patient shall be determined to be dead.

b) If the time from **initial determination** of pulselessness and apnea until trauma center arrival is estimated to be twenty minutes or more, the patient may be determined to be dead, regardless of cardiac rhythm.

D. Termination of Resuscitation

1. Base hospitals and EMS Personnel should consider terminating resuscitation measures on adult patients (age 18 and older) who are in cardiopulmonary

arrest and fail to respond to treatment under VC EMS Policy 705.07 or 705.08: Cardiac Arrest, Adult.

2. If resuscitation measures have been initiated, base hospital contact should be attempted before resuscitation is terminated and the patient determined to dead.
3. If unable to make base hospital contact, resuscitation efforts may be terminated and the patient determined to be dead using the following criteria:
    a. Patients without evidence of trauma who meet termination of resuscitation criteria in VC EMS Policy 733: CAM and Post ROSC Care.
4. In cases of cardiopulmonary arrest as a result of a lightning strike, electrocution or suspected hypothermia, CPR shall be performed for a minimum of 1 hour. **BLS responders in these circumstances shall make all reasonable attempts to access ALS care.**

E. Documentation
1. EMS Personnel will document determination of death in the approved Ventura County Electronic Patient Care Reporting System (VCePCR).

F. Disposition of Decedent's Body
1. Deaths that occur in hospitals or skilled nursing facilities, or to patients enrolled in hospice programs, do not require law enforcement response. Under these circumstances the body may be left at the scene.
2. Deaths that occur anyplace other than a hospital or skilled nursing facility **except to patients enrolled in hospice programs**, must be reported to law enforcement personnel and the body must be left in their custody.

Ventura County EMS Determination of Death

RIGOR: Check the jaw and other joints for rigidity.
LIVIDITY: Check the dependent areas of the body for purplish-red

Obvious death
Decapitation, incineration, hemicorporectomy, decomposition, extrusion of brain matter

OR

Rigor or Lividity Present
Confirmed non-responsive, pulseless, and not breathing.

YES

NO

TRAUMATIC ETIOLOGY
Blunt or penetrating trauma (sufficient to cause death)

MEDICAL ETIOLOGY
Drowning, ingestion, asphyxiation, hanging, poisoning, lightning strike, electrocution.

PEDIATRIC
Patient < 18 Y.O.

ADULT
Patient ≥ 18Y.O.

TREAT
Reference applicable 705 protocols. Plan to resuscitate on scene.

TRANSPORT DECISIONS
Transport vs continued resuscitation on scene vs termination of resuscitative efforts according to policy 733 Cardiac Arrest Management

TRAUMA CENTER ETA < 20 Minutes

NO

YES

BLS PROVIDER TREAT NOW

ALS PROVIDER ASSESS ECG

Initial Rhythm
Asystole or Wide Complex PEA Rate < 30

YES

NO

DOD
Withhold or Discontinue Resuscitation

TREAT
TRANSPORT TO TRAUMA CENTER
Resuscitation while minimizing time to trauma center arrival according to 705.29 traumatic arrest.

Trauma Assessment/Treatment Guidelines 705.01

I. Purpose: To establish a consistent approach to the care of the trauma patient

A. Rapid trauma survey

1. Airway
   a. Maintain inline cervical stabilization
      1) Follow spinal motion restriction guidelines per VCEMS Policy 614
   b. Open airway as needed
      2) Utilize a trauma jaw thrust to maintain inline cervical stabilization if indicated
   c. Suction airway if indicated
   d. Insert appropriate airway adjunct if indicated
2. Breathing
   a. Assess rate, depth, and quality of respirations
   b. If respiratory effort inadequate, assist ventilations with BVM
   c. Assess lung sounds
   d. Initiate airway management and oxygen therapy as indicated
      1) Maintain $SpO_2 \geq 94\%$
3. Circulation
   a. Assess skin color, temperature, and condition
   b. Check distal/central pulses and capillary refill time
   c. Control major bleeding
   d. Initiate shock management as indicated
4. Disability
   a. Determine level of consciousness (Glasgow Coma Scale)
   b. Assess pupils
5. Exposure
   a. If indicated, remove clothing for proper assessment/treatment of injury location, always maintaining patient dignity
   b. Always maintain patient body temperature

B. Detailed physical examination

1. Head
   a. Inspect/palpate skull
   b. Inspect eyes, ears, nose and throat
2. Neck
   a. Palpate cervical spine
   b. Check position of trachea
   c. Assess for jugular vein distention (JVD)

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

C. Trauma care guidelines
1. Fluid Administration
    a. Maintain SBP of ≥ 90 mmHg
        1) Patients 65 years and older, maintain SBP of ≥ 100 mmHg
        2) Isolated head injuries, maintain SBP of ≥ 100 mmHg
    b. Pediatric patients, maintain minimum SBP for respective age in Handtevy
2. Transfusion of Blood Products -
    a. Warm and transfuse one unit (Approximately 500 mL) of whole blood or packed RBC when indications are met.
    b. Repeat x1 to a total max of 2 units of blood transfused when indications continue to be met.
    c. Inclusion Criteria
        1) Adult patient ≥ 14 Y.O.
        2) Patient consent obtained (informed or implied)
    d. Indications
        1) Life threatening hemorrhage
        2) Vital sign criteria met (1or more required)
            a. SBP < 70 mmHg
            b. SBP < 90 mmHg AND HR > 110 (Shock Index 1.2)
            c. Witnessed traumatic cardiac arrest
    e. Contraindications
        1) Ground level fall
        2) Isolated head injury
        3) Patient refusal
        4) Patient ≤13 Y.O.
        5) Non-witnessed traumatic cardiac arrest

3. Tranexamic Acid (TXA) Administration
    a. As indicated in VCEMS Policy 734
3. Head injuries
    a. General treatments
        1) Evaluate head and face – maintain high index of suspicion for injury if significant mechanism of injury is present or physical examination is remarkable for findings
        2) Elevate head 30° unless contraindicated
        3) Do not attempt to intubate head injured patients unless unable to manage with BLS airway measures
        4) Do not delay transport if significant airway compromise
    b. Penetrating injuries
        1) DO NOT REMOVE IMPALED OBJECT (unless airway obstruction is present)
        2) Stabilize object manually or with bulky dressings
    c. Facial injuries
        1) Assess airway and suction as needed
        2) Remove loose teeth or dentures if present
    d. Eye injuries
        1) Remove contact lenses
        2) Irrigate eye thoroughly with suspected acid/alkali burns
        3) Avoid direct pressure
        4) Place eye shield over injured eye only
        5) Ask patient to keep eyes closed
        6) Stabilize any impaled object manually or with bulky dressing
4. Spinal cord injuries
    a. General treatments
        1) Evaluate spinal column – maintain high index of suspicion for injury if significant mechanism of injury is present or physical examination is remarkable for findings
        2) Place patient in supine position if hypotension is present
    b. Penetrating injuries – DO NOT REMOVE IMPALED OBJECT
        1) Stabilize object manually or with bulky dressings
        2) Control bleeding if present
        3) In the presence of isolated penetrating injuries, spinal motion restriction is contraindicated
    c. Neck injuries

1) Monitor airway
2) Control bleeding if present

5. Thoracic Trauma
   a. General treatments
      1) Evaluate chest – maintain high index of suspicion for internal injury if significant mechanism of injury is present or physical examination is remarkable for findings
      2) Keep patients sitting high-fowlers
         i. In the presence of isolated penetrating injuries, spinal motion restriction is CONTRAINDICATED
   b. Penetrating injuries – DO NOT REMOVE IMPALED OBJECT
      1) Remove object if CPR is interfered
      2) Stabilize object manually or with bulky dressings
      3) Control bleeding if present
   c. Flail Chest/Rib injuries
      1) Assist ventilations if respiratory status deteriorates
   d. Pneumothorax/Hemothorax
      1) Keep patient sitting high-fowlers
      2) Assist ventilations if respiratory status deteriorates
      3) Suspected tension pneumothorax should be managed per VCEMS Policy 715
   e. Open (Sucking) Chest Wound
      1) Place an occlusive dressing to wound site, secure on 3 sides only or place a vented chest seal.
      2) Assist ventilations if respiratory status deteriorates
   f. Cardiac Tamponade – If suspected, expedite transport
      1) Beck's Triad
         i. Muffled heart tones
         ii. JVD
         iii. Hypotension
   g. Traumatic Aortic Disruption
      1) Assess for quality of radial and femoral pulses
      2) If suspected, expedite transport
6. Abdominal/Pelvic Trauma
   a. General Treatments

1) Evaluate abdomen and pelvis – maintain high index of suspicion for internal injury if significant mechanism of injury is present or physical examination is remarkable for findings

b. Blunt injuries
   1) Place patient in supine position if hypotension is present

c. Penetrating injuries – DO NOT REMOVE IMPALED OBJECT
   1) Stabilize object manually or with bulky dressings
   2) Control bleeding if present

d. Eviscerations
   1) DO NOT REPLACE ABDOMINAL CONTENTS
   2) Cover wound with saline-soaked dressings
   3) Control bleeding if present

e. Pregnancy
   1) Place patient in left-lateral position to prevent supine hypotensive syndrome

f. Pelvic injuries
   1) Assessment of pelvis should be only performed ***ONCE*** to limit additional injury
   2) Control external bleeding if present
   3) Place a commercial binder or sheet if pelvic injury is suspected and patient is hemodynamically unstable (see step one for parameters)
   4) Empirically place a binder or sheet if patient is in cardiac arrest due to a blunt or blast injury
   5) **Consider** applying a binder or sheet in patients with suspected pelvic injury **without** hemodynamic instability

7. Extremity Trauma
   a. General Treatments
      1) Evaluate CSM distal to injury
         i. If decrease or absence in CSM is present:
            a) Attempt to reposition extremity into anatomical position
            b) Re-evaluate CSM
            c) If no change in CSM after repositioning, splint and expedite transport
            d) Cover open wounds with sterile dressings
            e) Place ice pack on injury area (if closed wound)
            f) Splint/elevate extremity with appropriate equipment

   b. Dislocations

1) Splint in position found with appropriate equipment

c. Penetrating injuries – DO NOT REMOVE IMPALED OBJECTS
   1) Stabilize object manually or with bulky dressings
   2) Control bleeding if present

d. Femur fractures
   1) Utilize traction splint only if isolated mid-shaft femur fracture is suspected
   2) Assess CSM before and after traction splint application

e. Amputations
   1) Clean the amputated extremity with NS
   2) Wrap in moist sterile gauze
   3) Place in plastic bag
   4) Place bag with amputated extremity into a separate bag containing ice packs
   5) Prevent direct tissue contact with the ice pack

Hypovolemic Shock

BLS Procedures

Place patient in supine position

Administer oxygen as indicated

ALS Standing Orders

ADULT

IV/IO access

Non-Hemorrhagic Shock

Normal Saline

- IV/IO bolus – 1 Liter
  - Repeat x 1 for persistent signs of shock

Hemorrhagic Shock (Atraumatic or Traumatic)

- Judicious volume resuscitation is recommended for hemorrhagic shock of any cause.
  - Target SBP: 90 mmHg
  - Target SBP 65 years and older: 100 mmHg

Normal Saline

- IV/IO bolus – 1 Liter
  - Discontinue once target SBP is reached or titrate to sustain target SBP
  - Restart or repeat x1 as needed to sustain target SBP.

Tranexamic Acid (SBP ≤ 90 mmHg)

- Refer to Policy 734 for indications and contraindications
- IV/IOPB - 1g in 100mL NS over 10 minutes

When Available :

Whole Blood (SBP < 70 or SBP <90 AND HR >110)

- Warm and rapidly transfuse one unit of low titer O+ whole blood.
- Repeat x 1 additional unit of low titer O+ whole blood when indications return or persist.

PEDIATRIC

IV/IO access

Non-Hemorrhagic Shock

Normal Saline

- IV/IO bolus – 20 mL/kg
  - Repeat x 1 for persistent signs of shock

Hemorrhagic Shock (Atraumatic or Traumatic)

- Judicious volume resuscitation is necessary for hemorrhagic shock of any cause.
  - Target SBP: Handtevy minimum for respective age

Normal Saline

- IV/IO bolus – 1 Liter
  - Discontinue once target SBP is reached or titrate to sustain target SBP
  - Restart or repeat x1 as needed to sustain target SBP.

Tranexamic Acid (SBP less than Handtevy minimum)

- Refer to Policy 734 for indications and contraindications
- IV/IOPB – 15mg/kg to a max of 1g in 100mL NS over 10 minutes

Base Hospital Orders only

Consult with ED Physician for further treatment measures

Effective Date: April 1, 2025
Next Review Date: April 10, 2025

Date Revised: April 1, 2025
Last Reviewed: April 1, 2025

VCEMS Medical Director

Traumatic Cardiac Arrest

BLS Procedures

- **Assess for viability per policy 606**

- **Treat immediate threats to life**

External hemorrhage: Tourniquet as indicated
Airway and Breathing: Clear airway when indicated, place OPA, BVM ventilations
Chest Compressions: Chest compressions should be performed when possible without delaying transport or other treatments

Rapid trauma assessment per Trauma Treatment guidelines to identify potential injuries and prioritize interventions

ALS Standing Orders

Assess patient and mechanism
Prioritize interventions in order of suspected etiology

ADULT

Optimize Oxygenation/Ventilation
- Advanced airway per policy

Correct potential obstructive shock
- Maintain high Index of suspicion for tension pneumothorax
- Bilateral needle thoracostomy per policy 715

Treat potential exsanguination

Tourniquet for any external hemorrhage
- Obtain bilateral large bore IV or IO access
- **Normal Saline**
  - 1 L normal saline bolus simultaneously via each IV/IO
  - Utilize pressure bag for rapid fluid administration
  - Repeat PRN during arrest
- **Whole Blood -** When arrest is witnessed by EMS and hemorrhage is a likely cause.
  - Warm and rapidly transfuse one unit of low titer O+ whole blood.
  - Repeat x 1 when indications return or persist.

Treat Cardiovascular Collapse
- High quality CPR
- Epinephrine per policy

If palpable pulse becomes present;
- Re-assess for and control external hemorrhage.
- Administer TXA as indicated in VCEMS Policy 734
- Titrate normal saline to SBP ≥ 90 mmHg or palpable peripheral pulses

PEDIATRIC

Optimize Oxygenation/Ventilation
- Clear airway obstruction and suction as indicated

Correct potential obstructive shock
- Maintain high Index of suspicion for tension pneumothorax
- Bilateral needle thoracostomy per policy 715

Treat potential exsanguination
- Obtain bilateral large bore IV or IO access
- Tourniquet for any external hemorrhage
- 20 mL/kg normal saline bolus simultaneously via each IV/IO
- Utilize pressure bag or push pull technique for rapid fluid administration
- Repeat PRN during arrest

Treat Cardiovascular Collapse
- High quality CPR
- Epinephrine per policy

If palpable pulse becomes present;
- Re-assess for and control external hemorrhage.
- Titrate normal saline to SBP ≥ 80 mmHg or palpable peripheral pulses

Base Hospital Orders only

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

Additional Information

- Lung sounds are subjective and when pneumothorax is present will worsen over time with BVM ventilations. Diminished or absent lung sounds should make needle thoracostomy the priority. Any other findings are inconclusive and do not contraindicate needle thoracostomy.
- IO access is preferred for initial access unless circumstances are such that IO is less likely to be successful than IV.
- Basic interventions should be initiated immediately and can be terminated if indicated after initial 606 assessment.
- Intubation of immobilized patient in cardiac arrest is inherently difficult. Strongly consider use of supraglottic device as primary advanced airway adjunct.
- Minimize Scene time to ≤ 10 minutes.

Effective Date: April 1, 2025
Next Review Date: April 10, 2025
Date Revised: April 1, 2025
Last Reviewed: April 1, 2025

VCEMS Medical Director

COUNTY OF VENTURA HEALTH CARE AGENCY	EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Out of Hospital Transfusion of Blood Products	Policy Number
APPROVED: Administration: Steve L. Carroll, Paramedic	Date:
APPROVED: Medical Director: Daniel Shepherd, M.D.	Date:
Origination Date: Date Revised: Date Last Reviewed: Review Date:	Effective Date:

I. PURPOSE: to define the indications, contraindications, method of administration, and documentation of the administration of blood products by Ventura County EMS Personnel.

II. AUTHORITY: EMS Authority LOSOP statute

III. POLICY: Transfusion of blood products is the gold standard method of resuscitation for hemorrhaging patients. Numerous studies have demonstrated that EMS initiated transfusion of blood products is both safe and effective. Paramedics in Ventura County are authorized to transfuse whole blood or PRBCs under a local optional scope of practice approved by the California EMS Authority.

The administration, storage, and management of blood products will only be performed by authorized agencies, in accordance with local policy and the local optional scope of practice.

IV. PROCEDURE:

a. Inclusion Criteria
   i. Adult Patient ≥ 14 Y.O.
   ii. Patient consent obtained (informed or implied)

b. Indications
   i. Life threatening hemorrhage
   ii. Vital Sign Criteria (1 or more required)
      1. SBP < 70 mmHg
      2. SBP < 90 mmHg and HR 110 (Shock index 1.2)
      3. Witnessed traumatic cardiac arrest

c. Contraindications
   i. Ground level fall
   ii. Isolated head injury
   iii. Patient refusal
   iv. Patient ≤13 Y.O.
   v. Non-witnessed traumatic cardiac arrest

d. Administration
    i. Obtain IV/IO Access – Large bore IV is preferred. IO if required.
    ii. Obtain pre-transfusion blood sample - When possible, obtain ≥ 3 mL blood sample in pink top tube prior to transfusion.
    iii. Verify Blood Product
        1. Serial Number
        2. Expiration Date
        3. Temperature
        4. Clarity / Consistency
    iv. Verify Patient
        1. No exclusion Criteria
        2. Indications Met
        3. Consent Obtained
    v. Cross check blood product and patient verification with second provider.
    vi. Warm 1 unit (approx. 500 mL) Blood Product
    vii. Administer 1 unit (approx. 500 mL) IV/IO via rapid infuser
    viii. Monitor for infiltration
    ix. Monitor for signs of transfusion reaction
e. Post Transfusion Care –
    i. Wristband or other highly visible identifier shall be placed on ALL patients who receive a transfusion, at the time the transfusion is performed. This identifier alerts hospital that an out of hospital blood transfusion was administered.
    ii. The paramedic who administered the blood products will ensure the receiving hospital team is aware that a transfusion was performed and that the following steps are taken during transfer of care.
        1. Verbal communication by EMS notifying the treating ED physician and care team that an out of hospital transfusion was performed and that wristband has been applied to notify others. Verbal report will include any signs/symptoms that may be the result of transfusion reaction.
        2. Information / Resources to allow receiving facility to perform type, screen, and/or crossmatch if necessary or desired.
            a. Pre-transfusion blood sample, when available, will be left with ED care team.
            b. Donor blood segment, bag, and tubing from donor blood bag will be left with ED care team.
            c. Provide ED with EMS transfusion information document
    iii. Documentation
        1. Blood transfusion required ePCR documentation includes but is not limited to the following transfusion specific fields.
            a. Donor blood type
            b. Donor blood serial number
            c. Donor blood expiration date

d. Transfusion start time
e. Transfusion end time
f. Total mL transfused
g. Patient receiving hospital MRN
h. Patient receiving hospital Visit Number
i. Consent type
j. Patient refusal (where applicable).
k. Physician signature ordering emergent transfusion.

iv. Continuous Quality Improvement
    1. Individual Case Review
        a. Patient inclusion criteria and indications met
        b. Appropriate type of consent obtained and documented.
        c. Procedure performed according to protocol and safety standards.
        d. Documentation complete and accurate.
    2. Aggregate Measures
        a. Safety
            i. Units of blood per month that expire / are discarded without use (N, %).
            ii. Scene time > 20 minutes (N,%)
            iii. Scene time > 10 minutes (N, %)
            iv. Scene time (Avg, STD, Median, 90^{TH} percentile)
            v. Patients transfused without meeting criteria (N,%)
            vi. Transfusion Reactions (N,%)
            vii. Temperature excursions resulting in blood waste (N,%).
            viii. Impact on lights and sirens use – Count and total minutes.
        b. Efficacy
            i. Number of hospital blood products infused per patient (avg, std)
            ii. Total blood products infused per patient (avg, std)
            iii. Advanced airway placed (N, %)
            iv. Survival to hospital admission (N, %)
            v. Survival to hospital discharge (N, %)
            vi. Hospital length of stay
    3. CQI metrics will be provided at mutually agreed upon intervals, or as defined in policy. Failure to provide CQI metrics as defined may result in suspension of authorization to provide out of hospital transfusions.

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Continuing Education ~~–~~ Case Review		Policy Number 1131
APPROVED: Administration:	Steven L. Carroll, Paramedic	Date: DRAFT
APPROVED: Medical Director:	Daniel Shepherd, M.D.	Date: DRAFT
Origination Date: Date Revised: Date Last Reviewed: Next Review Date:	August 1, 1994 ~~December 10, 2015~~ ~~December 10, 2015~~ ~~December, 2018~~	Effective Date: DRAFT

I. PURPOSE: Case review is an important component of the continuing education of prehospital personnel (i.e. EMTs, Paramedics, MICNs). Field Care Audits allow a practical way for prehospital personnel to apply theoretical knowledge to real-world situations, promoting critical thinking, problem-solving, policy application, and deeper understanding by allowing analyzation of complex scenarios with multiple perspectives. ~~The Field Care Audit is an important component of the continuing education of prehospital personnel, and is a vital tool in evaluating the effectiveness of mobile intensive care. These regular reviews allow team members the opportunity to critique their own performance, as well as the performance of others. In addition, the review allows all members of the EMS team the opportunity to exchange ideas and opinions on the management of patient calls, thus improving the interpersonal relationships and promoting appropriate communication patterns.~~

~~Implementation of the Field Care Audit guidelines will provide a structured session with the group dynamics important in the recording critique process and will enhance the prehospital education experience.~~

II. AUTHORITY: California Code of Regulations, Title XXII, Division 9, Chapter II, 100390.

III. POLICY: ~~Each~~ Through a collaborative process with the Ventura County EMS Agency and/or local fire and ambulance provider agencies, Base Hospitals ~~shall~~ are required to provide at least one (1) hour of ~~field care audit~~case review per month.

IV. PROCEDURE:

A. ~~A.~~ All ~~Field Care Audits~~case reviews shall be conducted either by a Prehospital Care Coordinator (PCC) or by a 911 agency in Ventura County that is also an approved prehospital continuing education provider~~.~~

1. Elements that may be included in case review presentations:
   a. Patient Demographics (i.e. age, gender, presenting chief complaint)
   b. Scene Assessment (i.e. location, initial impression, potential hazards)
   c. Medical History (i.e. relevant past medical conditions, medications, allergies)
   d. Physical Examination (i.e. vital signs, airway, breathing, circulation, pertinent physical findings)
   e. Differential Diagnosis (i.e. potential causes for the patient's presentation based on assessment)
   f. Interventions provided (i.e.medications administered, procedures, airway management)
   g. Transport Decisions (i.e. destinations facility, level of care needed)
   h. Emergency Department - Patient Course of Treatment
   i. Anatomy/Physiology explanations of pathophysiology
2. Presentation Format
   a. Introduction: Briefly stating the patient's primary complaint and key presenting factors.
   b. Case Narrative: Chronologically present the details of the patient's assessment, interventions, and transport decisions.
   c. Discussion: Analyze the case, highlighting critical aspects, decision-making points, and potential learning opportunities, including VCEMS policy application.
   ~~a.~~d. Conclusion: Summarize the key takeaways from the case.

B. ~~Field Care Audits~~Case reviews will meet all applicable requirements for prehospital continuing education outlined in VCEMS Policy 1133 – Prehospital Continuing Education ~~shall be a minimum of one (1) hour and a maximum of four (4) hours.~~

C. When conducting a ~~field care audit~~case review, the following guidelines should be utilized:

1. Case reviews will have a minimum of three (3) persons in attendance, not including the instructor.
2. Recording should be reviewed to determine educational value before they are presented at a case review session. A recording and/or case which is specifically requested by prehospital personnel should be presented at a case review as soon as possible.
3. All personnel involved in a response to be discussed at a case review should be contacted directly and encouraged to attend the review, if possible.
4. A continuing education attendance roster will be made for each case review in accordance with VCEMS Policy 1132..
5. An evaluation form shall be completed by each attendee for each hour of FCA that is provided. A CE Certificate will be provided for each hour of FCA provided, to each attendee in accordance with VCEMS Policy 1130 – Prehospital Continuing Education Provider Approval.
6. All of required case review hours will be attended in Ventura County for Ventura County certified prehospital personnel.

~~Field Care Audits shall have a minimum of three (3) persons in attendance, one whom shall be a PCC.~~

~~2. Recordings should be reviewed to determine educational value before they are presented at a formal Field Care Audit session. A recording which is specifically requested by prehospital personnel should be presented at a field care audit as soon as possible.~~

~~3. All personnel involved in a response to be discussed at a Field Care Audit should be contacted directly and encouraged to attend the review, If possible. It is appropriate to include didactic instructions as part of a recording critique program when a specific problem needs to be clarified.~~

~~4. A continuing education attendance roster shall be made for each Field Care Audit. Each prehospital personnel shall sign and print his/her name. The Ventura County Certification/authorization or paramedic's State license number shall be filled in.~~

~~5. An evaluation form shall be completed by each attendee for each hour of Field Care Audit that is provided. The Base Hospital conducting the Field Care Audit shall retain the attendance roster. A CE Certificate will be provided for each hour of Field Care Audit provided, to each attendee.~~

~~6. Fifty (50) percent of required Field Care Audit hours shall be attended in Ventura County for Ventura County certified prehospital personnel.~~

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Mobile Intensive Care Nurse Authorization Criteria		Policy Number: 321
APPROVED: Administration:	Steven L. Carroll, Paramedic	Date: July 1, 2022
APPROVED: Medical Director	Daniel Shepherd, MD	Date: July 1, 2022
Origination Date: Date Revised: Last Date Reviewed: Next Review Date:	April 1, 1983 February 10, 2022 February 10, 2022 February 28, 2025	Effective Date: July 1, 2022

I. PURPOSE: To define the criteria by which a Registered Nurse (RN) can be authorized to function as a Mobile Intensive Care Nurse (MICN) in the Ventura County Emergency Medical Services (VCEMS) system.

II. AUTHORITY: Health and Safety Code 1797.56 and 1797.58.

III. POLICY: Authorization as a MICN requires professional experience and appropriate training, so that appropriate medical direction can be given to Paramedics at the scene of an emergency.

IV. PROCEDURE: In order to be authorized as a MICN in Ventura County, the candidate shall:

- A. Fulfill the requirements regarding professional experience and prehospital care exposure. (Section V.A and B.)
- B. Successfully completes an approved MICN Developmental Course.
- C. Ride with a Paramedic unit for a minimum of eight (8) maximum of (16) hours and observe at least one (1) emergency response requiring Base Hospital contact.
- D. Be recommended for MICN authorization by his/her employer.
- E. Successfully complete the authorization examination process.
- F. Complete a MICN internship.

V. AUTHORIZATION REQUIREMENTS

- A. Professional Experience:

  The candidate shall hold a valid California RN license and shall have a minimum of 1040 hours (equivalent to six months' full-time employment) critical care experience as an (RN). Critical care areas include, but are not limited to, Intensive Care Unit, Coronary Care Unit, and the Emergency Department.
- B. Prehospital Care Exposure

The candidate shall be employed in a Ventura County Base Hospital. In addition, for a minimum of 520 hours (equivalent to three (3) months full time employment) within the previous six calendar months, the candidate shall have one or more of the following assignments.

1. Be assigned to clinical duties in an Emergency Department responsible for directing prehospital care. (It is strongly recommended that this requirement be in addition to and not concurrent with the candidate's six-(6) months' critical care experience. A Base Hospital may recommend a MICN candidate whose critical care and/or Emergency Department experience are concurrent based on policies and procedures developed by the Base Hospital), or
2. Have responsibility for management, coordination, or training for prehospital care personnel, or
3. Be employed as a staff member of VCEMS.

C. MICN Developmental Course

The candidate shall successfully complete an approved Mobile Intensive Care Nurses Development Course (See Appendix A).

1. The MICN developmental course shall include a four (4) hour Mass Casualty Incident (MCI)-Basic training module to be administered by a VCEMS or authorized representative.

D. Field Observation

Candidates shall ride with an approved Ventura County Paramedic unit for ~~a minimum of~~ eight (8) ~~maximum of (16)~~ hours and observe at least one emergency response patient contact or simulated drill.

1. Candidates shall complete the field experience requirement prior to taking the authorization examination.
2. A completed Field Observation Form shall be submitted to ~~the~~ VC ~~-~~EMS as verification of completion of the field observation requirement (Appendix C).

E. Employer's Recommendation

1. The candidate shall have the recommendation of the Emergency Department Medical Director or Paramedic Liaison Physician (PLP), Prehospital Care Coordinator (PCC) and Emergency Department Clinical Manager.
2. Candidates employed by VCEMS shall have the approval of the Emergency Medical Services Medical Director.

3. All recommendations shall be submitted in writing to VCEMS prior to the authorization examination. (Appendix B.)

   The recommendation shall include:

   a. Each applicant's completed Mobile Intensive Care Nurse Authorization application form (Appendix B).

   b. Verification that the candidate has been an employee of the hospital for a minimum of three (3) months (or has successfully completed the hospital's probationary period) and will, upon certification, will be assigned to the E.D. as set forth in Section B of the MICN Authorization Criteria.

   c. Verification that each candidate has successfully completed an approved MICN Developmental Course.

   d. Verification that each candidate has completed the Field Observation requirement as set forth in Section II.D of the MICN Authorization criteria.

F. Examination Process

1. Written Procedure: Candidates shall successfully complete a comprehensive written examination approved by VCEMS.

   a. The examination's overall minimum passing score shall be 80%.

   b. Employers shall be notified within two (2) weeks of the examination if their candidates passed or failed the examination.

   c. The examination shall be scheduled in conjunction with class completion dates.

2. Examination Failure

   a. A candidate who fails the initial MICN exam shall complete a repeat exam within 30 days. S/he may repeat the authorization exam one (1) time.

   b. A minimum score of 80% must be attained on repeat examination.

   c. If the repeat examination is not successfully completed, the candidate shall repeat the authorization application process, including the developmental course, prior to taking the subsequent examinations.

3. Failure to Appear

   a. If a scheduled candidate fails to appear for the scheduled examination, s/he shall be considered as having failed the examination.

b. Within 24 hours of the scheduled examination, VCEMS shall notify the employer of any candidate failing to appear for testing.

c. Candidates who fail to appear for two scheduled authorization examinations shall not be eligible to take the authorization examination for one (1) calendar year from the last scheduled examination date and must repeat the entire authorization process.

G. Internship

Following notification of successful completion of the authorization examination, the candidate shall demonstrate competence to practice as an MICN by satisfactorily providing medical direction, while under the supervision of the PCC, an MICN or MD, during a minimum of ten (10) ALS Base Hospital Contacts.~~satisfactorily direct ten (l0) base hospital runs under the supervision of a MICN, the PCC, and/or an Emergency Department physician~~.

1. The Communication Equipment Performance Evaluation Form shall be completed for each response handled by the candidate during the internship phase. (Appendix D)
2. Upon successful completion of at least ten (l0) responses, the ten responses shall be evaluated by the Emergency Department Director or PLP, the Emergency Department Clinical Manager, and the PCC. All Communication Equipment Performance Evaluation Forms (Appendix D) and Verification of Internship Completion Form (Appendix E) shall be submitted to Ventura County EMS.
3. The internship requirement shall be completed within six (6) weeks of the successful completion of the authorization examination.
4. If an employer is unable to complete a candidate's internship process within six (6) weeks of the authorization examination, a BH representative shall submit a letter to Ventura County EMS explaining the situation and their intent. If the intent is to continue the authorization process for the individual, the projected date for internship completion shall be stated.
5. If an employer is unable to complete a candidate's internship process within one year of the authorization examination, a BH representative shall resubmit a letter of recommendation and the candidate shall repeat the authorization examination.

VI. AUTHORIZATION

Authorization shall be granted and an authorization card sent to the employer within fifteen (15) working days following receipt of the Communication Equipment Performance Evaluation and Verification of Internship Completion forms. Authorization is valid for a two (2) year period or during employment at a Ventura County Base Hospital. The nurse must be regularly assigned as a MICN per EMS Policy 322.

Appendix A

LETTER OF RECOMMENDATION
INITIAL AUTHORIZATION

_____ is recommended for Mobile Intensive Care Nurse Authorization in Ventura County.

We have reviewed the attached Mobile Intensive Care Nurse Application and verify that the applicant:

_____ Holds a valid California Registered Nurse License.

_____ Has at least 1040 hours of critical care experience.

_____ Has completed the Field Observation Requirement.

_____ If authorized, will be employed in accordance with guidelines as set for the in Section V.B of the MICN Authorization Criteria.

_____ Has been employed by _____ in the Emergency Department for at least 520 hours gaining prehospital care exposure.

_____ Has completed an approved Mobile Intensive Care Nurse Developmental Course.

_____
Emergency Department Medical Director/
Paramedic Liaison Physician

_____
Emergency Department Clinical Manager

_____
Prehospital Care Coordinator

Date: _____

Policy 321
Appendix B

MICN AUTHORIZATION APPLICATION

	County of Ventura Emergency Medical Services Agency 2220 E. Gonzales Road, Suite 130 Oxnard, CA 93036 805-981-5301

Application processing requires a minimum of 10 days once all materials are received.
Authorization cards will be mailed. Complete application in ink.

Name:		
Street Address:		
City:	State:	Zip code:
Home phone: ( )	Work Phone: ( )	
Base Hospital:		
Current/Prior Authorization Number:	Expiration Date:	

Initial Authorization:

- ☐ Pass the Ventura County EMS MICN Exam with a score of 80% or higher.
- ☐ Provide a copy of a valid and current license as a registered nurse in California
- ☐ Provide a copy of a valid and current ACLS card (front and back of card)
- ☐ Provide a copy of a valid and current PALS, PEPP, or ENPC card (front and back of card)
- ☐. Letter of Recommendation (VCEMS Policy 321, appendix A)
  (to include 1040 hours of Critical Care Experience & 520 hours of Ventura County ED experience)
- ☐. Field Observation Verification (VCEMS Policy 321, appendix C)
- ☐ Communication Equipment Performance Evaluation Form (VCEMS Policy 321, appendix D)
- ☐ Verification of Internship Completion (VCEMS Policy 321, appendix E)

Reauthorization

- ☐ Provide a copy of a valid and current license as a registered nurse in California
- ☐ Provide a copy of a valid and current ACLS card (front and back of card)
- ☐ Provide a copy of a valid and current PALS, PEPP, or ENPC card (front and back of card)
- ☐ Verification of employment as an MICN at a designated base hospital
- ☐ Letter of Recommendation (VCEMS Policy 322, appendix A)
- ☐ Continuing Education Log (VCEMS Policy 322, appendix D)

Applicant Signature: Date

Prehospital Care Coordinator Signature: Date

POLICY 321
APPENDIX C

FIELD OBSERVATION REPORT

MICN NAME: _____ AUTH. NO.:_____

EMPLOYER: _____ RIDE-ALONG DATE: _____

TIME IN: _____ TIME OUT: _____ TOTAL HOURS: _____

BASE CONTACT MADE WITH ALS PROCEDURES PERFORMED:YES: _____# _____ NO_____

ALS PROVIDER: _____

SUMMARY OF FIELD OBSERVATION

_____

_____

_____

_____

_____

_____

_____

_____

_____ _____
Paramedic Signature EMT/Paramedic Signature

_____ _____
MICN Signature PCC Signature

(Use other side for additional comments)

COMMUNICATION EQUIPMENT PERFORMANCE EVALUATION FORM

Candidate's Name:	MICN Exam Date:	Base Hospital:
MICN Evaluator: Please evaluate this MICN candidate for the following, to include but not be limited to: Proper operation of radio equipment; recommended radio protocols used; correct priorities set; additional info requested as needed; appropriate, complete, specific orders given; able to explain rationale for orders, notification of other agencies involved; and ability to perform alone or with assistance.		

Date	Incident # (and Pt # of Total as needed)	Chief Complaint	Treatment	Evaluator's Comments	Evaluator's Signature	PCC's Comments
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

Policy 321
Appendix E

VERIFICATION OF INTERNSHIP COMPLETION

_____, employed at _____, is/is not recommended for Authorization as a Mobile Intensive Care Nurse. S/He has achieved the following rating in the following categories:

Category	Rating	Comments
Understands and operates equipment properly		
Sets correct priorities		
Requests additional information as needed		
Orders are specific, complete and appropriate		
Understands treatment rationale		

NOTE:
In order to qualify for recommendation, a candidate must receive at least a rating of 3 in each category. Ratings are as follows:

1. Poor
2. Fair
3. Average
4. Good
5. Excellent

ATTACH COMMUNICATION EQUIPMENT PERFORMANCE EVALUATION FORM

Signatures:

_____
Base Hospital Medical Director/Paramedic Liaison Physician

_____
Prehospital Care Coordinator

COUNTY OF VENTURA HEALTH CARE AGENCY	EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Mobile Intensive Care Nurse: Reauthorization Requirements	Policy Number: 322
APPROVED: Administration: Steven L. Carroll, Paramedic	Date: July 1, 2025~~2~~
APPROVED: Medical Director Daniel Shepherd, MD	Date: July 1, 2025~~2~~
Origination Date: April 1983 Date Revised: ~~February 10, 2022~~April 10, 2025 Date Last Reviewed: ~~February 10, 2022~~April 10, 2025 Next Review Date: ~~February 28, 2025~~April 30, 2027	Effective Date: July 1, 2025~~2~~

I. PURPOSE: To define the reauthorization requirements~~procedures~~ for Ventura County Mobile Intensive Care Nurse (MICNs).

II. AUTHORITY: Health and Safety Code Sections 1797.56 and 1797.58, 1797.213 and 1798.

II. POLICY:

Ventura County (MICNs) shall meet the reauthorization requirements and apply for reauthorization every two years (Appendix A-C).

III. PROCEDURE:

A. Ventura County MICNs shall:

1. Complete the following mandatory education during their MICN Authorization cycle:~~a total of thirty-six hours of Continuing Education , 50% of which, in each category, shall have been obtained at Ventura County Base Hospitals. Document continuing education on Appendix D.~~

a. Case Review by a Ventura County approved CE Provider~~Field Care Audits (Field care audit)~~: ~~Twelve~~ 4 hours ~~per two years.~~

~~b. Periodic training sessions or structured clinical experiences (Lecture/Seminar): Twelve hours per two years. Lecture/Seminar hours may be fulfilled by the following means:~~

~~1)~~ b. EMS Update~~s~~: 4 hours, ~~(Mandatory, u~~up to ~~two~~2 times per year, as offered in Spring and Fall~~).~~

c. ~~2)~~ ACLS recertification: ~~4~~ 4 hours credit

Formatted: Indent: Left: 1.5"

3)d. PALS, PEPP, or ENPC recertification: 4 hours credit

3) Self-Study/Video CE - No more than 50% of the total lecture requirement shall be met by combination of self-study and/or video CE.

a) Self-study CE shall be documented by a certificate from the sponsor of the self-study opportunity (e.g., EMS journals mail courses, etc.).

b) Video CE - Video CE shall be presented so that a physician or PCC is available to answer questions at the time of the presentation. A posttest shall be successfully completed at the Base Hospital, signed by the MICN and PCC, and documentation of attendance maintained at the Base Hospital.

c) e. Ride along with an approved Ventura County Paramedic unit may be required at PCC discretion.

e. Basic MCI Refresher Training for the MICN: 2 hours

f. Letter of Recommendation (Appendix

1) Two (2) hour refresher training required for MICN re-authorization every two years after the initial training has been completed.f. Ride along with an approved Ventura County Paramedic unit may be required at PCC discretion.

d. Miscellaneous Education: Ten hours per two years. Examples of miscellaneous education:

1) Ride-along on an ALS Unit for a maximum of 12 hours or at the discretion of the Prehospital Care Coordinator,

2) ALS level teaching, maximum of 8 hours,

3) Additional field care audit and/or lecture/ seminar,

4) Administrative assistance to PCC.

2. e. Verification of attendance must be retained by the MICN.

1) The Base Hospital Attendance Roster shall be signed individually by each MICN and maintained by the Base Hospital.

2) CE attendance verification for classes taken out of Ventura County shall be documented by completion of the

Formatted: Indent: Left: 0", First line: 0"

Formatted: Indent: Left: 2"

Formatted: Indent: Left: 1.5"

Formatted: Tab stops: Not at -0.5" + 0" + 0.5" + 1" + 1.5" + 2" + 2.5" + 3"

Formatted: Indent: Left: 1.5", Hanging: 0.5", Tab stops: Not at 2.5"

Formatted: Indent: Left: 1.5"

Formatted: Indent: Left: 1.5", Adjust space between Latin and Asian text

Formatted: Indent: Left: 1.5"

Formatted: Indent: Left: 0", First line: 0", Tab stops: -0.5", Left + 0", Left + 0.5", Left + 1", Left + 1.5", Left + 2", Left + 2.5", Left + 3", Left

~~Paramedic/MICN Continuing Education Record or a facsimile of a roll sheet signed by the sponsoring agency PCC with an additional original signature of the sponsoring agency PCC.~~

~~3) Credit shall be given only for actual time in attendance at CE.~~

~~4) Credit may be received for a class one time only in an authorization cycle.~~

B. ~~2.~~ To Maintain MICN Authorization:

~~1.~~ Function as an MICN for an average of 32 hours per month over a six-month period or

1.

2. An MICN whose duties for his/her primary employer are administering a VC ALS Program may, with approval of the EMS Medical Director, maintain his/her MICN status by performing MICN clinical functions at a VC Base Hospital for 8 hours per month, averaged over a ~~si~~six-~~x~~ month period.

3. ~~Complete all reauthorization requirements (Appendix A-D) by the first day of the month that the Authorization card expires.~~ In the event the MICN takes a leave of absence from their employer, he/she will have 60 days from the date of return to work to complete any outstanding CE, prior to reauthorization. ~~,~~ If an EMS Update was offered during leave of absence, it must be made up prior to their next MICN~~radio~~ assignment.

4. Maintain current ACLS and PALS, PEPP or ENPC certification.

C~~B~~. Upon successful completion of mandatory education ~~the above~~ requirements, the~~a~~ MICN shall be reauthorized for a period of two years. ~~from the last day of the month in which all requirements were met.~~

Formatted: Indent: Left: 0", First line: 0"

Formatted: Font: Arial, 11 pt

Formatted: Font: Arial, 11 pt

Formatted: Font: Arial, 11 pt

Formatted: Font: Arial, 11 pt

Formatted: List Paragraph, Indent: Left: 1", Tab stops: Not at 2"

Policy 322
Appendix A

LETTER OF RECOMMENDATION
REAUTHORIZATION

_____ is recommended for Mobile Intensive Care Nurse Reauthorization in Ventura County.

We have reviewed the attached Mobile Intensive Care Nurse Application and verify that the applicant:

_____ Holds a valid California Registered Nurse License.

_____ Holds a valid and current ACLS card (front and back of card)

_____ Holds a valid and current PALS, PEPP, or ENPC card (front and back of card)

_____ Currently employed at _____ as an MICN
(Name of Base Hospital or Agency)

_____
Emergency Department Medical Director/
Paramedic Liaison Physician

_____

Emergency Department Clinical Manager

Prehospital Care Coordinator

Date: _____

Policy 322
Appendix B

MICN AUTHORIZATION APPLICATION

	County of Ventura Emergency Medical Services Agency 2220 E. Gonzales Road, Suite 130 Oxnard, CA 93036 805-981-5301

Application processing requires a minimum of 10 days once all materials are received.
Authorization cards will be mailed. Complete application in ink.

Name:		
Street Address:		
City:	State:	Zip code:
Home phone: ( )	Work Phone: ( )	
Base Hospital:		
Current/Prior Authorization Number:	Expiration Date:	

Initial Authorization:

- ☐ Pass the Ventura County EMS MICN Exam with a score of 80% or higher.
- ☐ Provide a copy of a valid and current license as a registered nurse in California
- ☐ Provide a copy of a valid and current ACLS card (front and back of card)
- ☐ Provide a copy of a valid and current PALS, PEPP, or ENPC card (front and back of card)
- ☐ Letter of Recommendation (VCEMS Policy 321, Aappendix A)
  (to include 1040 hours of Critical Care Experience & 520 hours of Ventura County ED experience)

☐. Field Observation Verification (VCEMS Policy 321, Aappendix C) ☐ Communication Equipment Performance Evaluation Form (VCEMS Policy 321, Aappendix D) ☐ Verification of Internship Completion (VCEMS Policy 321, Aappendix E) **Reauthorization** ☐ Provide a copy of a valid and current license as a registered nurse in California ☐ Provide a copy of a valid and current ACLS card (front and back of card) ☐ Provide a copy of a valid and current PALS, PEPP, or ENPC card (front and back of card) ☐ Verification of employment as an MICN at a designated base hospital ☐ Letter of Recommendation (VCEMS Policy 322, Aappendix A) ☐ Continuing Education Log (VCEMS Policy 322, Aappendix D)
Applicant Signature: Date
Prehospital Care Coordinator Signature: Date

POLICY 322
APPENDIX C

FIELD OBSERVATION REPORT
(PCC discretion for reauthorization)

MICN NAME: _____ AUTH. NO.:_____

EMPLOYER: _____ RIDE-ALONG DATE: _____

TIME IN: _____ TIME OUT: _____ TOTAL HOURS: _____

BASE CONTACT MADE WITH ALS PROCEDURES PERFORMED:YES: _____# _____ NO_____

Formatted: Left

ALS PROVIDER: _____

SUMMARY OF FIELD OBSERVATION

_____

_____

_____

_____

_____

_____

Paramedic Signature

EMT/Paramedic Signature

MICN Signature

PCC Signature

(Use other side for additional comments)

Policy 322
Appendix D

NAME:
_____

EMPLOYER: _____ Authorization #: M_____

Formatted: Font: 10 pt

Formatted: Font: 10 pt

Ventura County Authorization Requirements
Continuing Education Log

This form should be used to track your continuing education requirements. This form must be turned in when it is time for your reauthorization. When attending a continuing education course, remember to get a course completion, as EMS will audit 10% of all MICN's reauthorizing and if you are randomly selected you must provide a course completion for each course attended in order to receive credit for that course. Course completions must have the name of the course, number of hours, date, provider agency and provider number.

The EMS Update requirements are mandatory, and they must be completed in the stated time frames or negative action will be taken against your MICN authorization.

~~Field Care Audit Hours (12 Hours)~~				
	~~Date~~	~~Name of Topic Discussed~~	~~# Of Hours~~	~~Provider Number~~
~~1.~~				
~~2.~~				

3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

Policy 322
Appendix D Continued

Lecture Hours					
	Required Courses	# of Hours	Date	Location	Provider Number
1.	EMS UPDATE #1: (1 hour)				
2.	EMS UPDATE #2: (1 hour)				
3.	EMS UPDATE #3: (1 hour)				
4.	EMS UPDATE #4: (1 hour)				
	EMS Updates are completed as the new or changed policies are put into place. This is usually done every 6 months in May and November.				
5.	ACLS Course: (4 hours—additional hours please record in miscellaneous hours section)				
6.	PALS, PEPP or ENPC: (4 hours — additional hours please record in miscellaneous hours section)				
7.	Basic MCI for the MICN-Refresher: (2 Hours)				

Miscellaneous Hours Case Review Hours

(410 hours are required)

(These hours can be earned with any combination of additional field care audit, lecture, etc.)

	Date	# of Hours	Name of Topic Discussed	Provider Number
1.				
2.				
3.				

Formatted: Font: 10 pt
Formatted: Font: 10 pt
Formatted: Font: 10 pt
Formatted: Font: 10 pt
Formatted: Font: 10 pt
Formatted: Font: 10 pt
Formatted: Indent: Left: 0"
Formatted Table
Formatted: Font: 10 pt
Formatted: Normal, Centered
Formatted: Font: 10 pt
Formatted: Indent: Left: 0"
Formatted: Font: 10 pt, Bold
Formatted: Indent: Left: 0"
Formatted: Font: 10 pt, Bold
Formatted: Indent: Left: 0"
Formatted: Font: 10 pt, Bold
Formatted: Indent: Left: 0"

4.				
~~5.~~				
~~6.~~				
~~7.~~				
~~8.~~				
~~9.~~				
~~10.~~				
~~11.~~				
~~12.~~				

Formatted: Font: 10 pt, Bold

Formatted: Indent: Left: 0"

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Mobile Intensive Care Nurse Authorization Reactivation		Policy Number 324
APPROVED: Administration	Steven L. Carroll, Paramedic	Date: July 1, 2022
APPROVED: Medical Director	Daniel Shepherd, MD	Date: July 1, 2022
Origination Date: Revised: Date Last Reviewed: Next Review Date:	December 1991 February 10, 2022 February 10, 2022 February 28, 2025	Effective Date: July 1, 2022

I. Purpose: ~~-~~To define the procedure for reactivating a lapsed or inactive authorization.

II. Authority: ~~-~~Health and Safety Code 1797.56 and 1797.58, 1797.213 and 1798.

III. Policy: ~~-~~An individual may reactivate his/her authorization upon completion of the following requirements.

V. Procedure: ~~-~~An individual whose Mobile Intensive Care Nurse (MICN) authorization has become inactive or lapsed shall be eligible for reauthorization when the following have been met:

A. MICN Authorization has lapsed due to failure to meet ~~continuous service~~ requirements to Maintain MICN Authorization listed in Policy 322 and the MICN ~~date on a~~Authorization has not expired.

1. Notify VCEMS of intent to reactivate MICN ~~a~~Authorization.
2. ~~Within six (6) months of notification of intent to reactivate, c~~Complete ~~a minimum of six - (6) hours of lecture/seminar and six (6)~~ two (2) hours of Case Review by a Ventura County approved CE Provider ~~field care audit.~~ ~~-~~ These hours will be applied to ~~continuing education~~ the reauthorization requirements defined in Policy 322 ~~for reauthorization~~.
3. Demonstrate competence to practice as an MICN by satisfactorily providing medical direction, while ~~to a field unit~~ under the supervision of the PCC, an ~~direction of an authorized~~ MICN or MD, during a minimum of five (5) ALS Base Hospital Contacts. ~~call ins requiring ALS care.~~
4. Submit Appendix A: Letter of Recommendation in Policy 322.~~recommendations for reactivation of authorization from Base Hospital.~~

B. MICN authorization has expired for 1-31 days:

1. Notify VCEMS of intent to reactivate MICN Authorization.

2. Meet the requirements for MICN Reauthorization ~~reactivation~~ as defined in Policy ~~_____~~322.

C. MICN A~~a~~uthorization has expired for less than one (1) year: ~~.~~

1. Notify VCEMS of intent to reactivate MICN Authorization. All requirements must be completed within 6 months of notification.

2. ~~Complete the following in order and within six (6) months.~~

~~2. Prior to assignment on a radio:~~

~~a~~ Meet the requirements for MICN ~~r~~Reauthorization as defined in Policy ~~_____~~322.

~~b~~ 3. Complete an additional two (2) hours of Case Review by a Ventura County approved CE Provider. ~~Complete additional continuing education consisting of six (6) hours lecture/seminar and six (6) hours field care audit.~~

4. ~~c~~ Complete eight (8) hours of Field Observation on an approved Ventura County Paramedic ~~ALS~~ unit.

5~~3~~. Demonstrate competence to practice as an MICN by satisfactorily providing medical direction, while under the supervision of the PCC, an MICN or MD, during a minimum of five (5) ALS Base Hospital Contacts.~~Demonstrate competence to practice as a MICN by satisfactorily rendering the medical direction, while under the supervision of the PCC, MICN or MD, during a minimum of five (5) ALS responses. An ALS response is defined as the performance, by the Paramedic one or more of the skills listed in the VC EMS Scope of Practice.~~

6~~4~~. Submit Appendix A: Letter of Recommendation in Policy 322.~~Submit recommendations for reactivation of MICN authorization from the Base Hospital to VC EMS.~~

D. MICN A~~a~~uthorization has expired between one (1) and two (2) years: ~~.~~

1. Notify VCEMS of intent to reactivate MICN Authorization. All requirements must be completed within 6 months of notification.

2. Meet the requirements for MICN Reauthorization as defined in Policy 322.

3. Complete an additional four (4) hours of Case Review by a Ventura County approved CE Provider.

Formatted: Indent: Left: 1", Hanging: 0.5"

Formatted: Indent: Hanging: 0.5"

Formatted: Indent: Left: 1", Hanging: 0.5"

4. Complete eight (8) hours of Field Observation on an approved Ventura County Paramedic unit.
5. Demonstrate competence to practice as an MICN by satisfactorily providing medical direction, while under the supervision of the PCC, an MICN or MD, during a minimum of five (5) ALS Base Hospital Contacts.
6. Submit Appendix A: Letter of Recommendation in Policy 322.

~~Notify VC EMS of intent to reactivate. In the following order, and within six (6) months:~~

~~2. Prior to assignment on a radio:~~

~~a. Meet the requirements for reauthorization as defined in Policy 322.~~

~~b. Complete additional continuing education consisting of nine (9) hours lecture/seminar and nine (9) hours field care audit.~~

~~c. Complete twelve (12) hours of field observation on a Ventura County ALS unit.~~

~~3. Demonstrate competence to practice as a MICN by satisfactorily rendering medical direction, while under the supervision of the PCC, MICN or MD, during minimum of ten ALS responses. An ALS response is defined as the performance, by the Paramedic one or more of the skills listed in the VC EMS Scope of Practice.~~

~~4. Submit recommendations for reactivation of MICN authorization from ALS employer and Base Hospital to VC EMS.~~

E. MICN Authorization has expired for two (2) years or more:

1. Notify VCEMS of intent to reactivate MICN Authorization. All requirements must be completed within 6 months of notification.
2. Meet the requirements for MICN Reauthorization as defined in Policy 322.
3. Complete an additional four (4) hours of Case Review by a Ventura County approved CE Provider.
4. Complete eight (8) hours of Field Observation on an approved Ventura County Paramedic unit.
5. Demonstrate competence to practice as an MICN by satisfactorily providing medical direction, while under the supervision of the PCC, an MICN or MD, during a minimum of five (5) ALS Base Hospital Contacts.
6. Submit Appendix A: Letter of Recommendation in Policy 322.

~~1. Notify VC EMS of intent to reactivate. Criteria must be met in the following order and within six (6) months.~~

~~2. Prior to assignment on a radio:~~

~~a. Meet the requirements for reauthorization as defined in Policy 322~~

Formatted: Indent: Left: 0", First line: 0"

Formatted: Indent: Left: 0"

Formatted: Indent: Left: 0", First line: 0"

~~b. Complete additional continuing education consisting of an additional twelve (12) hours field care audit and twelve (12) hours lecture/seminar.~~

~~c. Complete twelve (12) hours of field observation on a Ventura County ALS unit.~~

~~3. Demonstrate competence to practice as a MICN by satisfactorily rendering medical direction, while under the supervision of the PCC, MICN or MD, during a minimum of ten (10) ALS responses. An ALS response is defined as the performance, by the Paramedic one or more of the skills listed in the VC EMS Scope of Practice.~~

~~4. Submit recommendations for reactivation of MICN authorization from ALS employer and Base Hospital to VC EMS.~~

~~F.~~F. ~~EMS~~ EMS Agency Responsibilities

Formatted: Indent: Left: 0", First line: 0"

1. VC ~~E~~EMS shall issue an MICN ~~a~~Authorization card upon successful completion of the requirements for reactivation.

Formatted: Indent: Left: 1", Hanging: 0.5"

Crush Injury/Syndrome

ADULT	PEDIATRIC

BLS Procedures

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

ALS Standing Orders

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

Crush Syndrome
- Initiate 2nd IV/IO access
- **Normal Saline**
  - IV/IO bolus – 1 Liter
- **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 slow push – 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**
  - IV/IO slow push - 1 mL (10 mcg) every 2 minutes
  - Titrate to SBP of greater than or equal to 90 mm/Hg

Crush Syndrome
- Initiate 2nd IV/IO access if possible or establish IO
- **Normal Saline**
  - IV/IO bolus – 20 mL/kg
- **Sodium Bicarbonate**
  - IV/IO mix– 1 mEq/kg
    - Added to 1st Normal Saline bolus
- **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 slow push – 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**
  - IV/IO slow push - 0.1 mL/kg (1 mcg/kg) every 2 minutes
  - 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

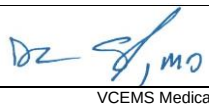
Additional Information:
- ~~Potential Crush Syndrome – Continuous crush injury to torso or extremity above wrist or ankle for 2 hours or less.~~
- The risk of a crush syndrome increases with the duration of the crush injury. Anticipate clinical decompensation when patient is extricated.
- Crush Syndrome – Continuous crush injury to torso or extremity above wrist or ankle. ~~for greater than 2 hours.~~
- 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

Formatted: Font: (Default) Arial, 8 pt

Formatted: Font: Italic

Effective Date: June 1, 2024
Next Review Date: February 28, 2026

Date Revised: February 10, 2022
Last Reviewed: February 8, 2024



VCEMS Medical Director

Effective Date: June 1, 2024
Next Review Date: February 28, 2026

Date Revised: February 10, 2022
Last Reviewed: February 8, 2024

VCEMS Medical Director

COUNTY OF VENTURA HEALTH CARE AGENCY	EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Tranexamic Acid (TXA) Administration	Policy Number 734
APPROVED: Administration: Steve L. Carroll, Paramedic	Date: August 8, 2024
APPROVED: Medical Director: Daniel Shepherd, M.D.	Date: August 8, 2024
Origination Date: January 10, 2019 Date Revised: August 8, 2024 Date Last Reviewed: August 8, 2024 Review Date: August 31, 2026	Effective Date: August 8, 2024

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

II. AUTHORITY: Health and Safety Code, Sections 1797.220 and 1798. California Code of Regulations, Title 22, Sections 100091.01 and 100096.02.

III. POLICY: Paramedics may administer TXA to patients presenting with hemorrhagic shock ~~-~~in accordance with this policy, Policy 705.14, ~~and Policy 705.14~~ and Policy 705.29. ~~Base hospital physician may order TXA to be administered for indications other than those listed below.~~

IV. PROCEDURE:

A. Indications

1. Blunt or penetrating traumatic injury with SBP less than or equal to 90mmHg
2. Any significant hemorrhage not controlled by direct pressure, hemostatic agents, or tourniquet application **AND** SBP less than or equal to 90 mmHg
3. Consider for other severe hemorrhage with SBP less than or equal to 90 mmHg (e.g., GI Bleed, postpartum hemorrhage)

B. Contraindications

1. Greater than 3 hours post traumatic injury
2. Isolated neurogenic shock
3. Isolated extremity injury when bleeding has been controlled
4. Active thromboembolic event (within the last 24 hours); i.e., stroke, myocardial infarction, pulmonary embolism, or DVT
5. History of hypersensitivity or anaphylactic reaction to TXA
6. Traumatic arrest without ROSC
7. Drowning or hanging victims

C. Precautions
    1. Severe kidney disease
    2. Pregnancy
D. Adverse Effects
    1. Chest Tightness
    2. Difficulty Breathing
    3. Facial flushing
    4. Swelling in hands and feet
    5. Blurred vision
    6. Hypotension with rapid IV infusion
E. Preparation
    1. Supplies Needed:
        a. 1g Tranexamic Acid (TXA) (1)
        b. 100mL bag of 0.9% normal saline (1)
        c. 10mL syringe (1)
    2. Maintain sterile technique
    3. Mixing Instructions
        a. Inject 1g (10mL) of TXA into 100 mL NS bag
    4. Label bag with the drug name and final concentration
        a. Example: (TXA 1g in 100mL NS)
F. Adult Dosing
    1. IV/IOPB - 1g in 100mL Normal Saline over 10 minutes
G. Pediatric Dosing
    1. IV/IOPB – 15mg/kg to a max of 1g in 100 ml NS over 10 minutes
H. Communication and Documentation
    1. Communicate the use of TXA to the base hospital
    2. Administration of TXA and any/all associated fields will be documented in the Ventura County electronic Patient Care Report (VCePCR)