To: ALL VENTURA COUNTY EMS POLICY MANUAL HOLDERS

DATE: June 1, 2016

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0450	Stroke Center Standards	
0604	Transport Destination Guidelines	
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COUNTY OF VENTURA	EMERGENCY MEDICAL SERVICES
HEALTH CARE AGENCY	POLICIES AND PROCEDURES
Policy Title:	Policy Number
STEMI Receiving Center (SRC) Standards	430
APPROVED:	Date: June 1, 2016
Administration: Steven L. Carroll, EMT-P	Date. Julie 1, 2010
APPROVED:	Date: June 1, 2016
Medical Director: Angelo Salvucci, M.D.	Date. Julie 1, 2010
Origination Date: July 28, 2006	
Date Revised: February 3, 2016	ective Date: June 1, 2016
Last Review: February 3, 2016	clive Date. Julie 1, 2010
Review Date: February, 2019	

- I. PURPOSE: To define the criteria for designation as a STEMI Receiving Center in Ventura County.
- II. AUTHORITY: Health and Safety Code, Division 2.5, Sections 1798, 1798.101, 1798.105, 1798.2 and California Code of Regulations, Title 22, Section 100175.

III. POLICY:

- A. A STEMI Receiving Center (SRC), approved and designated by Ventura County EMS shall meet the following requirements:
 - 1. All the requirements of a Receiving Hospital in VCEMS Policy 420.
 - 2. All the requirements of a SRC in VCEMS Policy 440.
 - Designate a SRC Coordinator who will have the responsibility for communication with VC EMS.
 - Operate a cardiac catheterization lab licensed by the Department of Health Services and approved for emergency percutaneous coronary interventions.
 - 5. Licensed Cardiovascular Surgery.
 - 6. Maintain a daily roster of on-call cardiologists with privileges in percutaneous coronary interventions.
 - 7. Have policies for patients to receive emergent angiography or emergent fibrinolysis, based on physician decisions for individual patients.
 - 8. Maintain a hospital STEMI Quality Improvement Program.
 - Actively participate in the Ventura County EMS STEMI Quality
 Improvement Program and comply with data submission and case review standards as established by VCEMS.
 - Will accept all ambulance-transported patients with ***ACUTE MI SUSPECTED*** or ***MEETS ST SEGMENT ELEVATION MI

- CRITERIA***, except on internal disaster or no cardiac catheterization lab is available, regardless of ICU/CCU or ED saturation status.
- 11. Have policies and procedures that allow the automatic acceptance of any STEMI patient from a Ventura County Hospital upon notification by the transferring physician.
- 12. Have available continuous Intra-aortic balloon pump and Impella device capability with staffing.
- 13. Have policies in place for the transfer of STEMI patients.

B. Designation

1. Application:

Eligible hospitals shall submit a written request for SRC approval to the VC EMS, documenting the compliance of the hospital with Ventura County SRC Standards.

2. Approval:

SRC approval or denial shall be made in writing by VCEMS to the requesting Hospital within two weeks after receipt of the request for approval and all required documentation.

- VC EMS may deny, suspend, or revoke the approval of a SRC for failure to comply with any applicable policies, procedures, or regulations.
 Requests for review or appeal of such decisions shall be brought to the Ventura County Board of Supervisors for appropriate action.
- 4. The VCEMS Medical Director may grant an exception to a portion of this policy upon substantiation of need by the PSC that compliance with the regulation would not be in the best interests of the persons served within the affected area.
- 5. SRCs shall be reviewed on an annual basis.
 - a. SRCs shall receive notification of evaluation from the VCEMS.
 - b. SRCs shall respond in writing regarding program compliance.
 - c. On-site SRC visits for evaluative purposes may occur.
 - d. SRCs shall notify VCEMS by telephone, followed by a letter or email within 48 hours, of changes in program compliance or performance.

COUNTY OF VENT	JRA	EMERGE	NCY MEDICAL SERVICES
HEALTH CARE AGE	ENCY	POLI	CIES AND PROCEDURES
	Policy Title:		Policy Number
Acu	te Stroke Center (ASC) Standards		450
APPROVED:	St_Cll		Doto: Juno 1 2016
Administration:	Steven L. Carroll, Paramedic		Date: June 1, 2016
APPROVED:			Date: June 1, 2016
Medical Director:	Angelo Salvucci, M.D.		Date. Julie 1, 2010
Origination Date:	October 11, 2012		
Date Revised:	December 10, 2015	_	Effective Date: June 1, 2016
Last Review:	December 10, 2015		inective Date. June 1, 2010
Review Date:	December, 2018		

- I. PURPOSE: To define the criteria for designation as an Acute Stroke Center in Ventura County.
- II. AUTHORITY: California Health and Safety Code, Sections 1797.114, 1797.220, 1798, 1798.2, 1798.101, and California Code of Regulations, Title 22, Section 100147 and 100169.

III. POLICY:

- A. An Acute Stroke Center (ASC), approved and designated by Ventura County EMS (VC EMS) shall meet the following requirements:
 - 1. All the requirements of a Receiving Hospital in VCEMS Policy 420.
 - Certification as a Primary Stroke Center (PSC) by either The Joint Commission, Det Norske Veritas, or the Healthcare Facilities Accreditation Program.
 - 3. Participate in the Ventura County Stroke Registry.
 - a. All data must be documented in the registry no later than 60 days after the end of the month of hospital admission.
 - 4. Actively participate in the Ventura County EMS Stroke Quality Improvement Program.
 - 5. Have policies and procedures that allow the automatic acceptance of any stroke patient from a hospital within Ventura County that is not designated as an ASC, upon notification by the transferring physician.
- B. Designation Process:
 - 1. Application:

Eligible hospitals shall submit a written request for ASC designation to VC EMS no later than 30 days prior to the desired date of designation,

documenting the compliance of the hospital with Ventura County ASC Standards.

2. Approval:

- Upon receiving a written request for ASC designation, VC EMS will arrange an on-site survey of the requesting hospital to assure compliance with stated requirements.
- b. ASC approval or denial shall be made in writing by VC EMS to the requesting hospital within two weeks after receipt of the request for approval and all required documentation and completion of the VC EMS site survey.
- c. Certification as a Primary Stroke Center by either The Joint Commission, Det Norske Veritas, or the Healthcare Facilities Accreditation Program, shall occur no later than six months following designation as an ASC by VC EMS.
- VCEMS may deny, suspend, or revoke the designation of an ASC for failure to comply with any applicable policies, procedures, or regulations.
 Requests for review or appeal of such decisions shall be brought to the Ventura County Board of Supervisors for appropriate action.
- 4. The VC EMS Medical Director may grant an exception to a portion of this policy upon substantiation of need by the ASC that compliance with the regulation would not be in the best interests of the persons served within the affected area.
- 5. ASCs shall be reviewed on a biannual basis.
 - a. ASCs shall receive notification of evaluation from the VCEMS.
 - b. ASCs shall respond in writing regarding program compliance.
 - c. On-site ASC visits for evaluative purposes may occur.
 - d. ASCs shall notify VCEMS by telephone, followed by a letter or email within 48 hours, of changes in program compliance or performance.

C. Provisional Designation Process

VC EMS may grant provisional designation as an ASC to a requesting hospital that has satisfied the requirements of an ASC as outlined in section B of this policy, but has yet to receive certification as a PSC by an approving body. Only when the following requirements are satisfied will VC EMS grant a provisional designation:

1. Application:

Eligible hospitals shall submit a written request for provisional ASC designation to VC EMS no later than 30 days prior to the desired date of provisional designation, documenting the compliance of the hospital with Ventura County ASC Standards.

2. Provisional Approval:

- Upon receiving a written request for provisional ASC designation,
 VC EMS will arrange an on-site survey of the requesting hospital
 to assure compliance with stated requirements.
- b. Provisional ASC approval or denial shall be made in writing by VC EMS to the requesting hospital within two weeks after receipt of the request for approval and all required documentation, as well as completion of the VC EMS site survey.
- c. Certification as a Primary Stroke Center by either The Joint Commission, Det Norske Veritas, or the Healthcare Facilities Accreditation Program, shall occur no later than six months following provisional designation as an ASC by VC EMS.
- 3. VC EMS may deny, suspend, or revoke the designation of an ASC for failure to comply with any applicable policies, procedures, or regulations. Requests for review or appeal of such decisions shall be brought to the Ventura County Board of Supervisors for appropriate action.
- 4. The VC EMS Medical Director may grant an exception to a portion of this policy upon substantiation of need by the provisional ASC that compliance with the regulation would not be in the best interests of the persons served within the affected area.
- VC EMS may deny, suspend, or revoke the provisional designation of an ASC for failure to comply with any applicable policies, procedures, or regulations. Requests for review or appeal of such decisions shall be brought to the Ventura County Board of Supervisors for appropriate action.

COUNTY OF VENTU	RA	EMER	GENCY MEDICAL SERVICES
HEALTH CARE AGE	NCY	Р	OLICIES AND PROCEDURES
	Policy Title:		Policy Number
Trans	port and Destination Guidelines		604
APPROVED:			Data: Ivaa 4 0040
Administration:	Steven L. Carroll, EMT-P		Date: June 1, 2016
APPROVED:			Data: Ivaa 4 0040
Medical Director:	Angelo Salvucci, M.D.		Date: June 1, 2016
Origination Date:	June 3, 1986		
Date Revised:	December 10, 2015		Effective Detection A 0040
Date Last Reviewed:	December 10, 2015		Effective Date: June 1, 2016
Review Date:	December, 2018		

- I. PURPOSE: To establish guidelines for determining appropriate patient destination, so that to the fullest extent possible, individual patients receive appropriate medical care while protecting the interests of the community at large by optimizing use and availability of emergency medical care resources.
- II. AUTHORITY: Health and Safety Code, Section 1317, 1797.106(b), 1797.220, and 1798
 California Code of Regulations, Title 13, Section 1105(c) and Title 22, Section 100147.
- III. POLICY: In the absence of decisive factors to the contrary, patients shall be transported to the most accessible medical facility equipped, staffed, and prepared to receive emergency cases and administer emergency medical care appropriate to the needs of the patients.

IV. PROCEDURE:

- A. Hospitals unable to accept patients due to an internal disaster shall be considered NOT "prepared to receive emergency cases".
- B. In determining the most accessible facility, transport personnel shall take into consideration traffic obstruction, weather conditions or other factors which might affect transport time.
- C. Most Accessible Facility

The most accessible facility shall ordinarily be the nearest hospital emergency department, except for:

- 1. Base Hospital Direction for ALS patients
 - a. Upon establishment of voice communication, the Base Hospital is responsible for patient management until the patient reaches a hospital and medical care is assumed by the receiving hospital.

- The Base Hospital may direct that the patient be transported to a
 more distant hospital which in the judgment of the BH physician or
 MICN is more appropriate to the medical needs of the patient.
- c. Patients may be diverted in accordance with Policy 402.
- Patients transported in BLS ambulances demonstrating conditions
 requiring urgent ALS care (e.g., unstable vital signs, chest pain, shortness
 of breath, airway obstruction, acute unconsciousness, OB patient with
 contractions), shall be transported to the nearest hospital emergency
 department prepared to receive emergency cases.
- D. "Decisive Factors to the Contrary"
 Decisive factors to the contrary for BLS or ALS patients include, but are not limited to, the following:
 - 1. Prepaid Health Plans
 - EMS personnel shall not request information on insurance or delay transport or treatment while determining insurance status.
 - b. A member of a group practice prepayment health care service who volunteers such information and requests a specific facility may be transported according to that plan when the ambulance personnel or the Base Hospital determines that the condition of the member permits such transport. Therefore when the Base Hospital contact is made the Base Hospital must always be notified of the patient's request.
 - c. However, when the on duty supervisor determines that such transport would unreasonably remove the ambulance unit from the service area, the member may be transported to the nearest hospital capable of treating the member.

2. Patient Requests

a. When a person or his/her legally authorized representative requests emergency transportation to a hospital other than the most accessible emergency department, which may include out of the county, the request should be honored when ambulance personnel, BH physician or MICN determines that the condition of the patient permits such transport. Therefore when the Base Hospital contact is made the Base Hospital must always be

notified of the patient's request.

b. When it is determined by the on duty supervisor that such transport would unreasonably remove the ambulance unit from the service area, the patient may be transported to the nearest hospital capable of treating him/her.

3. Private Physician's Requests

When a treating physician requests emergency transportation to a hospital other than the most accessible acute care hospital, which may include out of the county, the request should be honored unless it is determined by the on duty supervisor that such transport would unreasonably remove the ambulance from the service area. In such cases:

- a. If the treating physician is immediately available, ambulance personnel shall confer with the physician regarding a mutually agreed upon destination.
- b. If the treating physician is not immediately available, the patient should be transported to the nearest hospital capable of treating him/her.
- c. If Base Hospital contact has been made due to the condition of the patient and the immediate unavailability of the treating physician, and the BH physician or MICN determines that the condition of the patient permits or does not permit such transport, BH directions shall be followed. If communication with the treating physician is possible, the BH should consult with the physician.
- Physician on Scene per VC EMS Policy 703
 When a bystander identifies him/herself as a physician and offers assistance on scene, VC EMS Policy 702 shall be followed.
- 5. Direct Admits

When a patient's physician has arranged direct admission to a hospital, the patient should be transported to that hospital regardless of Emergency Department diversion status unless the Base Hospital determines that the patient's condition requires that s/he be transported to a more appropriate facility.

- E. "Medical facilities equipped, staffed and prepared to administer care appropriate to needs of the patients."
 - Paramedics treating patients that meet trauma criteria Steps 1-3 in VCEMS Policy 1405 will make Base Hospital contact with a designated Trauma Center. The Trauma Center MICN or ED physician will direct the patient to either the Trauma Center or a non-trauma hospital.
 - Patients who meet STEMI criteria in VC EMS Policy 440 will be transported to a STEMI Receiving Center.
 - Patients who are treated for cardiac arrest and achieve sustained return of spontaneous circulation (ROSC) will be transported to a STEMI Receiving Center.
 - 4. Patients who meet Stroke criteria in VC EMS Policy 451 will be transported to an Acute Stroke Center.

COUNTY OF VENTU	RA	EMERGE	NCY ME	EDICAL SERVICES
HEALTH CARE AGE	NCY	POLI	CIES A	ND PROCEDURES
	Policy Title:		F	Policy Number
	Do Not Resuscitate			613
APPROVED:	St-Cll		Doto:	luno 1 2016
Administration:	Steven L. Carroll, EMT-P		Date:	June 1, 2016
APPROVED:			Data:	June 1, 2016
Medical Director:	Angelo Salvucci, M.D.		Date.	June 1, 2010
Origination Date:	October 1, 1993			
Date Revised:	April 14, 2016	Effective	Dato:	June 1, 2016
Date Last Reviewed:	April 14, 2016	Ellective	Dale.	Julie 1, 2010
Review Date:	April, 2018			

- I. PURPOSE: To establish criteria for a Do Not Resuscitate (DNR) Order, and to permit Emergency Medical Services personnel to withhold resuscitative measures from patients in accordance with their wishes.
- II. AUTHORITY: California Health and Safety Code, Sections 1798 and 7186.
 California Probate Code, Division 4.7 (Health Care Decisions Law). California Code of Regulations, Title 22, Sections 70707(6), & 72527(a),(4).
- III. DEFINITIONS:
 - A. "EMS Personnel": All EMTs, paramedics and RNs caring for prehospital or interfacility transfer patients as part of the Ventura County EMS system.
 - B. "Resuscitation": Medical interventions whose purpose is to restore cardiac or respiratory activity, and which are listed below:
 - 1. External cardiac compression (chest compressions).
 - 2. Defibrillation.*
 - 3. Tracheal Intubation or other advanced airway.*
 - 4. Assisted Ventilation for apneic patient.*
 - 5. Administration of cardiotonic medications.*
 - C. "DNR Medallion": A permanently imprinted insignia, worn by a patient that has been manufactured and distributed by an organization approved by the California Emergency Medical Services Authority.
 - D. "DNR Order": An order to withhold resuscitation. A DNR Order shall be considered operative under any of the following circumstances. If there is a conflict between two DNR orders the one with the most recent date will be honored.
 - A fully executed original or photocopy of the "Emergency Medical Services Prehospital DNR Form" has been read and reviewed on scene;
 - 2. The patient is wearing a DNR Medallion;

^{* -} Defibrillation, advanced airway, assisted ventilation, and cardiotonic medications may be permitted in certain patients using a POLST form. Refer to VCEMS Policy 625.

3. A fully executed California Durable Power of Attorney For Health Care

and that agent requests that resuscitation not be done;

4. A fully executed Natural Death Act Declaration has been read and reviewed on scene:

- 5. A fully executed California Advance Health Care Directive (AHCD) has been read and reviewed on scene and:
 - a. a health care agent designated therein is present, and that agent requests that resuscitation not be done, or

(DPAHC) form is seen, a health care agent designated therein is present,

- b. there are written instructions in the AHCD stating that the patient does not wish resuscitation to be attempted;
- 6. A completed and signed Physician Orders for Life-Sustaining Treatment (POLST) form has been read and reviewed on scene, and in Section A, "Do Not Attempt Resuscitation/DNR" is selected, or;
- 7. For patients who are in a licensed health care facility, or who are being transferred between licensed health care facilities, a written document in the patient's permanent medical record containing the statement "Do Not Resuscitate", No Code", or No CPR," has been seen. A witness from the health care facility must verbally document the authenticity of this document.
- E. "California Advance Health Care Directive (AHCD)". As defined in California Probate Code, Sections 4600-4805.
- F. "California Durable Power of Attorney for Health Care (DPAHC)": As defined in California Civil Code, Sections 2410-2444.
- G. "Natural Death Act Declaration": As defined in the Natural Death Act of California, Health and Safety Code, Sections 7185-7195.
- H. "Physician Orders for Life-Sustaining Treatment (POLST)". As defined in California Probate Code, Division 4.7 (Health Care Decisions Law).

IV. PROCEDURE:

- A. All patients require an immediate medical evaluation.
- B. Correct identification of the patient is crucial in this process. If not wearing a DNR
 Medallion, the patient must be positively identified as the person named in the

DNR Order. This will normally require either the presence of a witness or an

C. When a DNR Order is operative:

identification band.

- If the patient has no palpable pulse and is apneic, resuscitation shall be withheld or discontinued.
- 2. The patient is to receive full treatment other than resuscitation (e.g., for airway obstruction, pain, dyspnea, hemorrhage, etc.).
- 3. If the patient is taking high doses of opioid medication and has decreased respiratory drive, early base hospital contact should be made before administering naloxone. If base hospital contact cannot be made, naloxone should be administered sparingly, in doses no more than 0.1 mg every 2-3 minutes.
- 4. If transport has been initiated, continue transporting the patient to the appropriate receiving facility and transfer care to emergency department staff.
 - a. If transport has not been initiated, but personnel are still on scene, patient should be left at scene, if not in a sensitive location (place of business, public place, etc.). The situation should be explained to the family or staff at the scene.
- D. A DNR Order shall be considered null and void under any of the following circumstances:
 - 1. The patient is conscious and states that he or she wishes resuscitation.
 - 2. In unusual cases where the validity of the request has been questioned (e.g., a family member disputes the DNR, the identity of the patient is in question, etc.), EMS prehospital personnel may temporarily disregard the DNR request and institute resuscitative measures while consulting the BH for assistance. Discussion with the family member, with explanation, reassurance, and emotional support may clarify any questions leading to validity of a DNR form.

The underlying principle is that the patient's wishes should be respected.

3. There is question as to the validity of the DNR Order.

Should any of these circumstances occur, appropriate treatment should continue or immediately commence, including resuscitation if necessary.

Base Hospital contact should be made when appropriate.

E. Other advanced directives, such as informal "living wills" or written instructions without an agent in the California Durable Power of Attorney for Health Care, may be encountered. Should any of these occur, appropriate treatment will continue or immediately commence, including resuscitation if necessary. Base Hospital contact will be made as soon as practical.

- In case of cardiac arrest, if a DNR Order is operative, Base Hospital contact is not required and resuscitation should not be done. Immediate base hospital contact is strongly encouraged should there be any questions regarding any aspect of the care of the patient.
- G. If a DPAHC or AHCD agent requests that resuscitation not be done, the EMT shall inform the agent of the consequences of the request.
- H. DNR in a Public Place Persons in cardiac arrest with an operative DNR Order should not be transported. The Medical Examiner's office should be notified by law enforcement or EMS personnel. If possible, an EMS representative should remain on scene until a representative from law enforcement or the Medical Examiner's office arrives.

V. DOCUMENTATION:

For all cases in which a patient has been treated under a DNR Order, the following documentation is required in the Ventura County Electronic Patient Care Report (VCePCR):

- A. Name of patient's physician signing the DNR Order.
- B. Type of DNR Order (DNR Medallion, Prehospital DNR Form, POLST Form, written order in a licensed health care facility, DPAHC, Natural Death Act Declaration).
- C. If the decision to withhold or terminate resuscitative measures was made by an EMT, his/her name and certificate number.
- D. For all cases which occur within a licensed health care facility, in addition to above, if the DNR Order was established by a written order in the patient's medical record, the name of the physician signing and the witness to that order.

E. If resuscitation is not done because of the request of a healthcare agent designated in a DPAHC or AHCD, document the agent's name in the VCePCR narrative.

COUNTY OF VENTU	RA	EMERG	SENCY MEDICAL SERVICES
HEALTH CARE AGE	NCY	PC	LICIES AND PROCEDURES
	Policy Title:		Policy Number:
Gu	idelines For Base Hospital Contact		704
APPROVED:	St. Cll		Date: June 1, 2016
Administration:	Steven L. Carroll, Paramedic		Date. Julie 1, 2010
APPROVED:			Data: June 1 2016
Medical Director:	Angelo Salvucci, MD		Date: June 1, 2016
Origination Date:	October 1984		
Date Revised:	December 10, 2015		Effective Date: June 1, 2016
Date Last Reviewed:	December 10, 2015		
Review Date:	December, 2017		

- I. PURPOSE: To define patient conditions for which EMT-Ps shall establish BH contact.
- II. AUTHORITY: Health and Safety Code Sections 1798, 1798.102 and 1798.2
- III. POLICY: A paramedic shall contact a Base Hospital in the following circumstances:
 - Any patient to which ALS care is rendered under VCEMS Policy 705: County Wide Protocols.
 - Patients with traumatic injuries who triage into steps 1-4 of VCEMS Policy 1405: Field
 Triage Decision Scheme.
 - C. General Cases
 - 1. Significant vaginal bleeding (OB or non-OB related).
 - 2. Pregnant female in significant distress (e.g., symptoms of placenta previa, placenta abruptio, toxemia, retained placenta, etc.).
 - 3. Syncope / Near Syncope
 - 4. Any safely surrendered baby.
 - 5. AMA involving any of the conditions listed in this policy.
 - 6. AMA including suspected altered level of consciousness
 - 7. AMA involving an actual/suspected ALTE patient.
 - 8. AMA involving any pediatric patient under 8 years old
 - 9. Any patient who, in paramedic's opinion, would benefit from base hospital consultation.

Cardiac Arrest – VF/VT

ADULT PEDIATRIC

BLS Procedures

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

ALS Prior to Base Hospital Contact

Defibrillate

- Use the biphasic energy settings that have been approved by service provider medical director
- · Repeat every 2 minutes as indicated

IV or IO access

PRESTO Blood Draw

Epinephrine

• IV/IO – 1:10,000: 1 mg (10 mL) q 3-5 min

Amiodarone

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

ALS Airway Management

• If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures

If VF/VT stops, then recurs, perform defibrillation at the last successful biphasic energy setting

Defibrillate – 2 Joules/kg

- If patient still in VF/VT at rhythm check, increase to 4 Joules/kg
- Repeat every 2 minutes as indicated

IV or IO access

PRESTO Blood Draw

Epinephrine 1:10,000

• IV/IO – 0.01mg/kg (0.1 mL/kg) q 3-5 min

Amiodarone

- IV/IO 5 mg/kg after second defibrillation
- If VT/VF-persists, 2.5 mg/kg IV/IO in 3-5 minutes

ALS Airway Management

If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures

If VF/VT stops, then recurs, perform defibrillation at the last successful biphasic energy setting

Base Hospital Orders only

Tricyclic Antidepressants

- Sodium Bicarbonate
 - o IV/IO − 1 mEq/kg
 - Repeat 0.5 mEq/kg q 5 min

Tricyclic Antidepressants

- Sodium Bicarbonate
 - o IV/IO 1 mEq/kg
 - Repeat 0.5 mEq/kg q 5 min

Torsades de Pointes

- Magnesium Sulfate
 - o IV/IO − 2 gm over 2 min
 - May repeat x 1 in 5 min

Consult with ED Physician for further treatment measures

ED Physician Order Only

- 1. History of Renal Failure/Dialysis
 - Calcium Chloride
 - o IV/IO 1g
 - o Repeat x 1 in 10 min
 - Sodium Bicarbonate
 - o IV/IO − 1 mEq/kg
 - Repeat 0.5 mEg/kg g 5 min

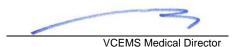
Consult with ED Physician for further treatment measures ED Physician Order Only

- 1. History of Renal Failure/Dialysis
 - Calcium Chloride
 - o IV/IO 20 mg/kg over 1 min
 - Repeat x 1 in 10 min
 - Sodium Bicarbonate
 - IV/IO 1 mEq/kg
 - Repeat 0.5 mEq/kg q 5 min

Additional Information:

- If sustained ROSC (>30 seconds), perform 12-lead EKG. Transport to SRC
- After 30 minutes of sustained VF/VT, make base contact for transport decision
- 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: June 1, 2016 Next Review Date: Feb, 2018 Date Revised: Feb 11, 2016 Last Reviewed: Feb 11, 2016



COUNTY OF VENTU	RA	EMERG	ENCY MEDICAL SERVICES
HEALTH CARE AGE	NCY	POI	LICIES AND PROCEDURES
	Policy Title:		Policy Number
	Airway Management		710
APPROVED:	St Cll		Doto: June 1 2016
Administration:	Steven L. Carroll, Paramedic		Date: June 1, 2016
APPROVED:			Date: June 1, 2016
Medical Director:	Angelo Salvucci, M.D.		Date. Julie 1, 2010
Origination Date:	June 1986		
Date Revised:	February 11, 2016		Effective Date: June 1, 2016
Date Last Reviewed:	February 11, 2016		Ellective Date. Julie 1, 2016
Review Date:	February, 2018		

- I. PURPOSE: To define the indications, procedure and documentation for airway management by Ventura County EMS personnel.
- II. AUTHORITY: California Health and Safety Code, §1798, §1798.2; §1798.160 and §1798.170 and California Code of Regulations, Title 22, §100145 and §100146.
- III. Policy: Airway management shall be performed on all patients that are unable to maintain their own airway. Paramedics may utilize oral endotracheal intubation on patients eight (8) years of age or older, in accordance with Ventura County Policy 705.
- IV. Definitions: Attempt: An interruption of ventilation, with, 1) laryngoscope insertion for the purpose of inserting an endotracheal tube (ETT), or 2) lifting of tongue for the purpose of insertion of the air-Q.
- V. Procedure:
 - A. Bag-Valve-Mask (BVM) ventilations
 - 1. Indications
 - a. Respiratory arrest or severe respiratory compromise
 - b. Cardiac arrest according to VCEMS Policy 705
 - 2. Contraindications
 - a. None
 - B. Air-Q
 - 1. Indications, Contraindications, Placement and Documentation in accordance with Policy 729.
 - C. Endotracheal Intubation (ETI)
 - 1. Indications

- a. Cardiac arrest according to VCEMS Policy 705 ONLY if unable to adequately ventilate with BVM or air-Q.
- Respiratory arrest or severe respiratory compromise AND unable to adequately ventilate with BVM or air-Q.
- After Base Hospital (BH) contact has been made, the BH
 Physician may order endotracheal intubation in other situations.

2. Contraindications

- a. Traumatic brain injury unless unable to maintain adequate airway (e.g. – persistent vomiting).
- b. Intact gag reflex.

3. Intubation Attempts

- a. There shall be no more than two (2) attempts to perform ETI, lasting no longer than 40 seconds each, and prior to BH contact. For patients in cardiac arrest, each ETI attempt shall interrupt chest compressions for no longer than 20 seconds.
- b. The patient shall be ventilated with 100% O₂ by BVM for one minute before each attempt.
- c. If ETI cannot be accomplished in 2 attempts, the airway shall be managed by BLS techniques.
- d. If ETI and BLS techniques are unsuccessful, the approved alternate ALS airway device may be inserted.

4. Special considerations

- a. Flexible Stylet. A flexible stylet may be used for any ETI attempt that involves an ETT size of at least 6.0 mm.
 - Two Person Technique (recommended when visualization is less than ideal):
 - a) Visualize as well as possible.
 - b) Place stylet just behind the epiglottis with the bent tip anterior and midline.
 - c) Gently advance the tip through the cords maintaining anterior contact.
 - d) Use stylet to feel for tracheal rings.

- e) Advance stylet past the black mark. A change in resistance indicates the stylet is at the carina.
- f) Withdraw the stylet to align the black mark with the teeth.
- g) Have your assistant load and advance the ETT tip to the black mark.
- h) Have your assistant grasp and hold steady the straight end of the stylet.
- i) While maintaining laryngoscope blade position, advance the ETT.
- j) At the glottic opening turn the ETT 90 degrees counter-clockwise to assist passage over the arytenoids.
- k) Advance the ETT to 22 cm at the teeth.
- I) While maintaining ETT position, withdraw the stylet.
- One Person Technique (recommended when visualization is good but cords are too anterior to pass ET tube).
 - a) Load the stylet into the ETT with the bent end approximately 4 inches (10 cm) past the distal end of the ETT.
 - b) Pinch the ETT against the stylet.
 - c) With the bent tip anterior, while visualizing the cords advance the stylet through the cords.
 - d) Maintain laryngoscope blade position.
 - e) When the black mark is at the teeth ease your grip to allow the tube to slide over the stylet. If available have an assistant stabilize the stylet.
 - f) At the glottic opening turn the ETT 90 degrees counter-clockwise to assist passage over the arytenoids.
 - g) Advance the ETT to 22 cm at the teeth.
 - h) While maintaining ETT position, withdraw the stylet.
- b. Tracheal stoma intubation

- Select the largest endotracheal tube that will fit through the stoma without force (it should not be necessary to use lubricant).
- 2) Do not use stylet.
- 3) Pass ETT until the cuff is just past the stoma.
- 4) Inflate cuff.
- 5) Attach the CO₂ measurement device to the ETT and confirm placement (as described below).
- 6) Secure tube.
- 5. Confirmation of Placement It is the responsibility of the paramedic who has inserted the ETT to personally confirm (using air aspiration, auscultation, and CO₂ detection/measurement) and document proper placement. Responsibility for the position of the ETT shall remain with the intubating paramedic until a formal transfer of care has been made.
 - a. Prior to intubation, prepare both the air aspiration and the CO₂ measurement devices.
 - b. Insert ETT, advance, and hold at the following depth:
 - 1) Less than 5 ft. tall: balloon 2 cm past the vocal cords.
 - 2) 5'-6'6" tall: 22 cm at the teeth.
 - 3) Over 6'6" tall:24 cm at the teeth or 2 cm past the vocal cords.
 - c. After inserting the ETT, in the patient requiring CPR, resume chest compressions while confirming ETT placement.
 - d. Before inflating ETT balloon, perform the air aspiration technique.
 - Deflate the bulb, connect to the ETT, and observe for refilling.
 - 2) Refilling of the bulb in less than 5 seconds indicates tube placement in trachea.
 - 3) If the bulb does not completely refill within 5 seconds, unless able to definitively confirm placement on repeat direct laryngoscopy, remove the ETT. Suspect delayed filling with the ETT in the trachea if the patient is morbidly obese, has fluid in the airway (pulmonary edema,

- aspiration, pneumonia, drowning), or the ETT is against the carina.
- e. Inflate the ETT cuff, attach the CO₂ measurement device, and begin ventilations. During the first 5-6 ventilations, auscultate both lung fields (in the axillae) and the epigastrium.
- f. After 6 ventilations, observe the CO₂ measurement device:
 - 1) If a colorimetric CO₂ detector device is used for initial placement confirmation prior to capnography, observe the color at the end of exhalation. Yellow indicates the presence of >5% exhaled CO₂ and tan 2-5% CO₂. Yellow or tan indicates tube placement in the trachea. Purple indicates less than 2% CO₂ and in the patient with spontaneous circulation is a strong indicator of esophageal intubation.
 - 2) When capnography is applied, a regular waveform with each ventilation should be seen with tracheal placement. If the patient has been in cardiac arrest for a prolonged time (more than 5-10 minutes) the waveform may be diminished or, rarely, absent. In the patient with spontaneous circulation, if a regular waveform with a CO₂ of 25 or higher is not seen, that is a strong indicator of esophageal intubation.
- g. Using information from auscultation and CO₂ measurement, determine the ETT position.
 - 1) If breath sounds are equal, there are no sounds at the epigastrium, and the CO₂ measurement device indicates tracheal placement, secure the ETT using an ETT holder.
 - 2) If auscultation or the CO₂ measurement device, indicates that the ETT may be in the esophagus, immediately reevaluate the patient. If you are not CERTAIN that the ETT is in the trachea, the decision to remove the ETT should be based upon the patients overall clinical status (e.g., skin color, respirations, pulse oximetry)

- If breath sounds are present but unequal, the ETT position may be adjusted as needed.
- h. Once ETT position has been confirmed, reassessment, using CO₂ measurement, pulse oximetry (if able to obtain), and auscultation of breath sounds should be performed each time patient is moved.
- Continue to monitor the CO₂ measurement device during treatment and transportation. If a change occurs from positive (yellow/tan) to negative (purple), or the waveform diminishes or disappears, reassess the patient for possible accidental extubation or change in circulation status.
- j. After confirmation of proper ETT placement and prior to movement, all intubated patients shall have their head and neck maintained in a neutral position with head supports. A cervical collar will only be used if a cervical spine injury is suspected.
 - Reconfirm ETT placement after any manipulation of the head or neck, including positioning of a head support, and after each change in location of the patient.
 - Report to nurse and/or physician that the head support is for the purpose of securing the ETT and not for trauma (unless otherwise suspected).

6. Documentation

- a. All ETI attempts must be documented in the "ALS Airway" section of the Ventura County Electronic Patient Care Report (VCePCR).
- b. All validated fields related to an advanced airway attempt shall be completed on the VCePCR. Anything related to the advanced airway attempt that does not have an applicable corresponding field in VCePCR, but needs to be documented, shall be entered into the report narrative. All data related to an advanced airway attempt (successful or not) shall be documented on a VCePCR. In addition, an electronic signature shall be captured on the mobile device used to document the care provided. The treating emergency room physician will sign the 'Advanced Airway Verification' section of the VCePCR, as well as document the supporting information (placement, findings, method, comments,

- name, and date). In the event the patient was not transported, another on scene paramedic (if available) will sign and complete the verification section.
- c. Documentation of the intubation in the approved Ventura County Documentation System must include the following elements. The acronym for the required elements is "SADCASES."
 - 1) Size of the ETT
 - 2) Attempts, number
 - 3) Depth of the ETT at the patient's teeth
 - 4) Confirmation devices used and results. For capnography, recording of waveform at the following points:
 - a. Initial ETT placement confirmation;
 - b. Movement of patient; and
 - c. Transfer of care.
 - 5) Auscultation results
 - 6) Secured by what means
 - 7) ETCO2, initial value
 - 8) Support of the head or immobilization of the cervical spine.
- d. An electronic upload of Cardiac Monitor data, including ETCO2 waveform "snapshots" the the VCePCR is required. In the event an upload cannot occur, a printed code summary, mounted and labeled, displaying capnography waveform at the key points noted above is required. This printed code summary shall be scanned and attached to the VCePCR.

COUNTY OF VENT	URA	EMERGENCY MEDICAL SERVICES
HEALTH CARE AG	ENCY	POLICIES AND PROCEDURES
	Policy Title:	Policy Number
G	uidelines for Limited Base Contact	720
APPROVED	St_Cll	Date: Jun 1, 2016
Administrator:	Steven L. Carroll, Paramedic	Date. 3011 1, 2010
APPROVED		Date:June 1, 2016
Medical Director:	Angelo Salvucci, MD	Date:Sand 1, 2010
Origination Date:	June 15, 1998	
Date Revised:	February 11, 2016	- " -
Date Last Reviewed:	February 11, 2016	Effective Date: June 1, 2016
Review Date:	February, 2018	

- I. PURPOSE: To define patient conditions for which Paramedics shall make limited base contact (LBC).
- II. AUTHORITY: Health and Safety Code 1797.220.
- III. POLICY: Paramedics shall make LBC for uncomplicated cases, which respond positively to initial treatment and require no further intervention or where symptoms have resolved.

A. Patient criteria:

- 1. Hypoglycemia Blood Glucose < 60 mg/DL
- 2. Narcotic Overdose.
- 3. Chest pain Acute Coronary Syndrome no arrhythmia, or associated shortness of breath.
- 4. Shortness of Breath Wheezes/Other
- 5. Seizure: No drug ingestion, no dysrhythmias, Chemstick > 60 (no longer seizing, not status epilepticus, not pregnant).
- 7. Syncope or near-syncope (stable vs. no dysrhythmia, Chemstick > 60.)
- 8. Pain (Except for head/neck/chest/abdominal and/or pelvic pain due to trauma)
- 9. Nausea and vomiting

B. Treatment to include:

- 1. Hypoglycemia: Prior to Contact procedure up to Dextrose
- 2. Narcotic Overdose: Prior to Contact procedure up to Naloxone
- 3. Chest Pain: Prior to Contact procedure up to three sublingual nitroglycerin or nitroglycerin spray (administered by paramedic) and Aspirin 324 mg po.
- 4. Shortness of Breath Wheezes/Other: Prior to Contact procedure up to one nebulized breathing treatment only (administered by paramedic).
- 5. Seizure: Prior to contact procedure up to administration of Dextrose and/or Versed.
- 6. Syncope or near-syncope: Prior to Contact procedure up to IV Chemstick check.
- 7. Pain: Prior to Contact procedure, including administration of Morphine.

C .

8. Nausea/Vomiting: Prior to Contact procedure, up to and including administration of Ondansetron.

C. Communication

- 1. The limited BH contact call-in shall include the following information:
 - a. ALS unit number
 - b. "We have a LBC"
 - c. Age/Sex
 - d. Brief nature of call
 - e. ETA and destination

D. Documentation

- 1. ALS Unit
 - a. Complete a VCePCR with "ALS (Limited Base Hospital Contact)" selected in the "Level of Service Provided" drop-down list.
- 2. MICN
 - a. Complete log entry with "LBC" noted in the treatment section.
 - b. Call will be documented on digital audio recording.

COUNTY OF VENTU	JRA		HEALT	H CARE AGENCY
EMERGENCY MEDI	CAL SERVICES	POL	ICIES AN	ID PROCEDURES
	Policy Title		Po	licy Number:
	12 Lead ECG			726
APPROVED: Administration:	Steven L. Carroll, Paramedic		Date: J	lune 1, 2016
APPROVED: Medical Director:	Angelo Salvucci, MD		Date: J	lune 1, 2016
Origination Date:	August 10, 2006			
Date Revised:	February 11, 2016	Effoctiv	/e Date:	June 1, 2016
Date Last Reviewed:	February 11, 2016	LIIGOUN	re Dale.	Julie 1, 2010
Review Date:	February, 2018			

- I. Purpose: To define the indications, procedure and documentation for obtaining 12-lead ECGs.
- II. Authority: California Health and Safety Code, Sections 1797.220 and 1798,California Code of Regulations, Title 22, Section 100175.
- III. Policy: Paramedics will obtain 12-lead ECGs in patients demonstrating symptoms of acute coronary syndrome. Treatment of these patients shall be done in accordance with this policy. Only paramedics who have received training in this policy are authorized to obtain a 12-lead ECG on patients. EMTs who are specially trained may be authorized to set up the 12 lead.

IV. Procedure:

- A. Indications for a 12-lead ECG: Medical history and/or presenting complaints consistent with an acute coronary syndrome. Patients will have the acute (within the previous 12 hours) onset of one or more of the following symptoms that have no other identifiable cause:
 - 1. Chest, upper back or upper abdominal discomfort.
 - 2. Generalized weakness.
 - 3. Dyspnea.
- B. Contraindications: Do NOT perform an ECG on these patients:
 - 1. Critical Trauma: There must be no delay in transport.
 - 2. Cardiac Arrest unless return of spontaneous circulation

C. ECG Procedure:

 Attempt to obtain an ECG during initial patient evaluation. Oxygen should be administered if patient is dyspneic, shows signs of heart failure or shock, or has SAO2 < 94% If the ECG can be completed without delay (less than 3 minutes after patient contact), and the patient is not in severe distress, perform ECG prior to medication administration.

- 2. The ECG should be done prior to transport.
- 3. If the ECG is of poor quality (artifact or wandering baseline), or the patient's condition worsens, may repeat to a total of 3.
- 4. Once an acceptable quality ECG is obtained
 - a. Switch the monitor to the standard 4-lead function
 - b. Repeat the 12-lead ECG only if the original ECG interpretation is NOT ***ACUTE MI SUSPECTED*** or ***MEETS ST SEGMENTELEVATION MI CRITERIA***, and patient's condition worsens.
- 5. If interpretation is ***ACUTE MI SUSPECTED** or ***MEETS ST SEGMENT ELEVATION MI CRITERIA***, note underlying rhythm, and verify by history and physical exam that the patient does not have a pacemaker or ICD.
- D. Base Hospital Communication/Transportation:
 - 1. If the ECG interpretation is ***ACUTE MI SUSPECTED*** or ***MEETS ST SEGMENT ELEVATION MI CRITERIA***; report that to MICN immediately, along with rate on ECG. If the ECG is of poor quality, or the underlying rhythm is paced, or atrial flutter, include that information in the initial report. All other information, except that listed in items 2, 4, and 5 below, is optional and can be given at the paramedic and MICN's discretion.
 - 2. Paramedics are to ask the patient if they have a cardiologist and report the information to the base hospital.
 - 3. If ECG Interpretation is ***ACUTE MI SUSPECTED*** or ***MEETS ST SEGMENT ELEVATION MI CRITERIA***, patients should be transported to the closest and most appropriate STEMI Receiving Center (SRC) depending on patient preference and cardiac catheterization lab availability. MICN may direct ambulance to alternative SRC if cardiac catheterization lab not available.
 - 4. If the ECG interpretation is ***ACUTE MI SUSPECTED*** or ***MEETS ST SEGMENT ELEVATION MI CRITERIA***, and the underlying rhythm is Atrial Flutter the Base Hospital shall be notified at the beginning of the report. The Cath Lab will not be activated.
 - 5. If the ECG interpretation is ***ACUTE MI SUSPECTED*** or ***MEETS ST SEGMENT ELEVATION MI CRITERIA*** and the patient has a

- pacemaker or the ECG is of poor quality (wandering baseline and/or artifact) report that to the MICN.
- 6. If a first responder paramedic obtains an ECG that is **not** ***ACUTE MI SUSPECTED*** or ***MEETS ST SEGMENT ELEVATION MI CRITERIA*** and the patient is stable, patient care may be turned over to the transporting paramedic. The ECG will be turned over to the transporting paramedic.
- 7. Positive ECGs will be handed to the receiving medical practitioner. The receiving practitioner will initial, time and date the ECG to indicate they have received and reviewed the ECG.

E. Patient Treatment:

1. Patient Communication: If the ECG interpretation is ***ACUTE MI SUSPECTED*** or ***MEETS ST SEGMENT ELEVATION MI CRITERIA***, the patient should be told that "according to the ECG you may be having a heart attack". If the ECG interpretation is anything else, the patient should NOT be told the ECG is normal or "you are not having a heart attack". If the patient asks what the ECG shows, tell him/her that it will be read by the emergency physician.

F. Other ECGs

- 1. If an ECG is obtained by a physician and the physician interpretation is Acute MI, the patient will be treated as an ***ACUTE MI SUSPECTED*** or ***MEETS ST SEGMENT ELEVATION MI CRITERIA***. Do not perform an additional ECG unless the ECG is of poor quality, or the patient's condition worsens.
- 2. If there is no interpretation of another ECG then repeat the ECG.
- 3. The original ECG performed by physician shall be obtained and accompany the patient.
- 12 Lead ECG will be scanned and added as an attachment to the Ventura County electronic Patient Care Report (VCePCR), in addition to being hand delivered to the receiving facility.

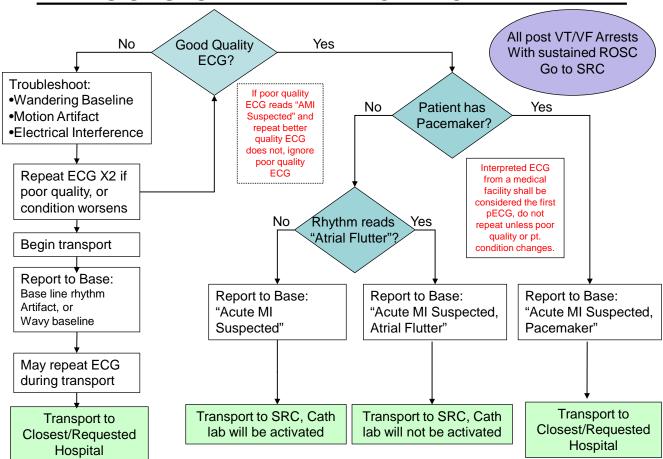
G. Documentation

 VCePCR will be completed per VCEMS policy 1000. The original ECG will be turned in to the base hospital and ALS Service Provider.

H. Reporting

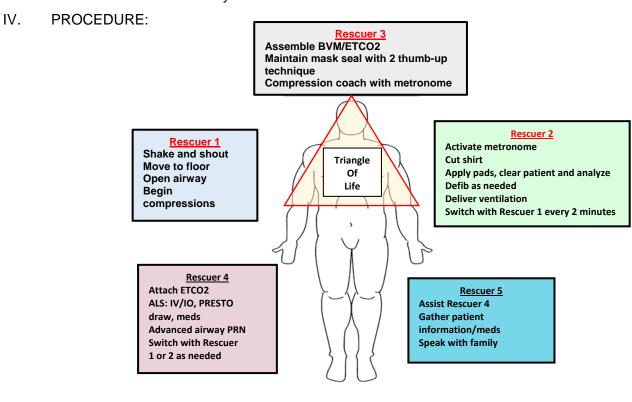
 False Positive ECGs not recognized and called in as such to the Base Hospital, will be reported to VC EMS as an Unusual Occurrence in accordance with VC EMS Policy 150.

ACUTE MI SUSPECTED or ***<u>MEETS ST SEGMENT ELEVATION MI CRITERIA***</u>



COUNTY OF VENTU	IRA	EMERGE	NCY MEDICAL SERVICES
HEALTH CARE AGE	NCY	POL	CIES AND PROCEDURES
	Policy Title:		Policy Number
Ca	rdiac Arrest Management (CAM)		733
APPROVED:	St-Cll		Date: June 1, 2016
Administration:	Steven L. Carroll, Paramedic		Date. Julie 1, 2010
APPROVED: Medical Director:	Angelo Salvucci, MD		Date: June 1, 2016
Origination Date:	April 30, 2016		
Date Revised:		E4	factive Date: June 1 2016
Date Last Reviewed:		E 1	ffective Date: June 1, 2016
Next Review Date:	June 1, 2018		

- I. PURPOSE: To establish a standardized procedure for the treatment of patients in cardiac arrest.
- II. AUTHORITY: California Health and Safety Code, Section 1797.220, and 1798.
 California Code of Regulations, Title 22, Section 100170.
- III. POLICY:
 - A. For all patients in cardiac arrest and are greater than 48 hours old, CAM protocol will be followed. Patients less than 48 hours old will follow VC EMS Neonatal Resuscitation Policy # 705.16



Triangle of Life

Ventura County EMS

Cardiac Arrest Management (CAM) Protocol



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

*****PRIORITIES DURING RESUSCITATION*****

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



Rescuer 1

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



Rescuer 2

- Turn on metronome (112/minute)
- Remove clothing over chest.
- Apply AED or Cardiac Monitor/Defibrillator pads ③

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Basic Life Support (AED)	Advanced Life Support (Manual Defib)
Turn on AED	Turn on Cardiac Monitor
Apply Pads	Apply Pads
Clear patient then press Analyze	 Pre-charge monitor⊕

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





Rescuer 3

- Insert OPA/NPA
- Assist ventilation with BVM along with 15L/min high flow O2
- Ensure proper seal with BVM mask to the patient with "2 Thumbs Up" technique
- Attach waveform capnography sensor, if equipped



Rescuer 2

 Deliver 1 brief low-volume ventilation on the recoil phase of every 10th compression (Ventilation delivered with ONE HAND on bag to ensure low volume)



Rescuer 4 (ALS)

- Attach waveform capnography sensor to BVM if not already completed by BLS
- Establish IV/IO Access
- PRESTO Blood Draw
- Advanced Airway PRN
- Follow VC EMS Policy 705.07 (Asystole/PEA) or 705.08 (VF/VT)



Rescuer 5 (ALS)

- Assist Rescuer 4 with IV/IO, PRESTO draw, medications
- Gather patient information/medications
- Communicate with family members
- Pre-Charge monitor ④
- Perform rhythm check every 2 min (< 3 seconds)
- Perform pulse check if EtCO2 > 20 AND organized rhythm >40

lack lack lack				
VF/VT	Non-Shockable rhythm			
Clear patient and deliver immediate shock	Disarm defibrillator charge			
↓				

RESUME CHEST COMPRESSIONS IMMEDIATELY!

Additional Information:

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

COUNTY OF VENTURA		EMERG	EMERGENCY MEDICAL SERVICES	
HEALTH CARE AGENCY		PC	POLICIES AND PROCEDURES	
Policy Title:			Policy Number	
Continuing Education Provider Approval			1130	
APPROVED:	1+/11		Data June 1 2016	
Administration:	Steven L. Carroll		Date June 1, 2016	
APPROVED:			Date June 1, 2016	
Medical Director:	Angelo Salvucci, M.D.		Date June 1, 2016	
Origination Date:	February 2001		Effective Date: June 1, 2016	
Date Revised:	February 11, 2016			
Date Last Reviewed:	February 11, 2016			
Review Date:	February, 2019			

- I. PURPOSE: To identify the procedure for approval of Continuing Education Providers (CEP's) in Ventura County, both Advanced and Basic Life Support, in accordance with CCR, Title 22, Division 9, Chapter 11.
- II. AUTHORITY: California Code of Regulations, Title 22, Division 9, Chapter 11, Article 4.

III. POLICY:

- A. The Approving Authority for Prehospital Continuing Education Providers (CEP's) shall be the Ventura County Emergency Medical Services Agency.
- B. Programs eligible for approval shall be limited to public or private organizations that meet the requirements identified in this policy. All private entities must possess a valid business license and proof of organizational registry (partnership, sole proprietorship, corporation, etc).

IV. PROCEDURE:

A. Program Approval

- Eligible programs shall submit a written request for CEP approval to the EMS
 Agency and agree to provide at least 12 hours of continuing education per year.
- 2. Applicant shall agree to participate in the VCEMS Quality Improvement Program and in research data accumulation.
- 3. Applicant shall agree to implement current American Heart Association ECC and CPR Guidelines.
- 4. Applicant shall submit resumes for the Program Director and the Clinical Director.
- Educational Staff Requirements:
 Nothing shall preclude one person from filling more than one position.
 - a. Program Director

- Shall be qualified by education and experience in methods, materials and evaluation of instruction which shall be documented by at least forty hours in teaching methodology. The following are examples of courses that meet the required instruction in teaching methodology:
 - California State Fire Marshal Fire Instructor 1-A, 1-B and 1-C, or;
 - b) National Fire Academy "Fire Service Instructional Methodology" course or equivalent, or;
 - Training programs that meet the US DOT/National
 Highway Traffic Safety Administration 2002 Guidelines for
 Educating EMS Instructors such as the National
 Association of EMS Educators Course.
 - d) Individuals with equivalent experience may be provisionally approved for up to two years by the Agency pending completion of the above specified requirements.

b. Clinical Director

Must be either a physician, registered nurse, physician assistant, or paramedic currently licensed in California and shall have two years of academic, administrative or clinical experience in emergency medicine or prehospital care in the last five years.

c. CE Provider Instructors

director and clinical director as qualified to teach the topics assigned, or have evidence of specialized training which may include, but is not limited to, a certificate of training or an advanced degree in a given subject area, or have at least one year of experience within the last two years in the specialized area in which they are teaching, or be knowledgeable, skillful and current in the subject matter of the course, class or activity.

6. Application Receipt Process

Upon receipt of a complete application packet, the Agency will notify the applicant within fourteen business days that;

- a. The request for approval has been received.
- b. The request does or does not contain all required information.

c. What information, if any, is missing

7. Program Approval Time Frames

- a. Program approval or disapproval shall be made in writing by the Agency to the requesting program, within sixty calendar days, after receipt of all required documentation.
- The Agency shall establish an effective date for program approval in writing upon the satisfactory documentation of compliance with all program requirements.
- c. Program approval shall be for four years following the effective date of the program and may be reviewed every four years subject to the procedure for program approval specified by the Agency.

8. Withdrawal of Program Approval

- a. Noncompliance with any criterion required for program approval, use of any unqualified personnel, or noncompliance with any other applicable provision of Title 22 may result in suspension or revocation of program approval by the Agency.
- b. An approved program shall have no more than sixty days to comply with corrections mandated by this policy.

B. Program Review and Reporting

- 1. All program materials are subject to periodic review by the Agency.
- 2. All programs are subject to periodic on-site evaluation by the Agency.
- The Agency shall be advised of any program changes in course content, hours of instruction, or instructional staff.
- 4. Records shall be maintained by the CEP for four years and shall contain the following:
 - a. Complete outlines for each course given, including brief overview, instructional objectives, outline, evaluations, and record of participant performance;
 - b. Record of time, place, and date each course is given and number of CE hours granted;
 - c. A curriculum vitae or resume for each instructor:
 - d. A roster of course participants (instructor based courses must have course participants sign roster)

- 5. Approved programs shall issue a tamper resistant Course Completion Certificate to each student who attends a continuing education course within 30 days of completion. This certificate shall include:
 - a. Student full legal name.
 - b. Certificate or license number
 - b. The date the course was completed
 - c. The name of the course completed
 - d. The name and signature of the Instructor or Program Director.
 - e. The name and address of the CE Provider.
 - f. Course completion document must contain the following statement with the appropriate information filled in. "This course has been approved for (number) of hours of continuing education by an approved California EMS CE Provider and was (check one) instructor based or non-instructor based." It also must have your C.E. provider number on it.
 - g. The following statement in bold print:"This document must be maintained for no less than four years"
- 6. For the initial six months of CE program approval, the CE Provider shall submit a lecture approval form to the EMS Agency prior to offering a course. After the initial six month period, the CE Provider shall approve and maintain their own records subject to review by the EMS Agency.
- A Continuing Education Roster shall be completed for every course offered by the CEP. This roster shall be maintained by the CEP and subject to review by the Agency.
 - However, a copy of the Continuing Education roster for all required Ventura County CE programs (EMS Update, Skills testing, etc) shall be submitted to the Agency immediately after the completion of the program.
- 8. Each CEP shall provide an annual report to the Agency, within 45 days of year end, detailing the names of the courses, times, number of hours awarded, and participants. A form will be provided by the EMS Agency.
- C. Application for Renewal
 - The CEP shall submit an application for renewal at least sixty calendar days before the expiration date of their CE provider approval in order to maintain continuous approval.
 - 2. All CE provider requirements shall be met and maintained for renewal as specified in VCEMS Policy 1130 and CCR, Title 22, Division 9, Chapter 11.

Ventura County Emergency Medical Services Agency Continuing Education Provider

APPROVAL REQUE	ST				
General Information					
Program/Agency Name:_					
Address:City:Zip:		_Zip:			
Phone:	Fax:	Ema	ail:		
Date Submitted:		Status Requested: □ BLS □ ALS		LS 🗆 ALS	
Requirements (All items below refer to Ventura County EMS Policy 1130 and Title 22 Regulations)					
I. Program Eligibility Name of Program					
Programs Programs eligible for approval shall be limited to public or private organizations that meet the requirements identified in this policy. All private entities must possess a valid business license and proof of organizational registry (partnership, sole proprietorship, corporation, etc)					
Written request for CEP Approval			□ Attached		
Submit resumes for Program Director and Clinical Coordinator		□ Attached			
If you will be offering CPR, state what organization will provide certification (AHA or ARC)		□ AHA	□ ARC		
Our organization verifies that we have implemented the current American Heart Association ECC and CPR Guidelines.		Signature:			
2. Program Adminis	stration and St	aff			
Program Director Shall be qualified by edu materials and evaluation documented by at least formethodology as described IV.A.5.a.1). Include current CV, resure certifications/licensures.	of instruction which forty hours in teach ed in Policy 1130, \$	ch shall be ning	Name of Progr	am Director:	

	N (0): : 1D: 1			
Clinical Director	Name of Clinical Director:			
Two years experience in emergency medicine or				
prehospital care in the past five years.				
Currently licensed CA MD, RN, PA, or paramedic.				
 Include current CV, resume, and copies of 				
certifications/licensures.				
CE Provider Instructor(s)	Name(s) of CE Provider Instructor(s):			
CE Provider instructor(s)	ivalle(s) of CE Flovider illstructor(s).			
Each CE provider instructor shall be approved by the program director and clinical director as qualified to teach the topics assigned, or have evidence of specialized training which may include, but is not limited to, a certificate of training or an advanced degree in a given subject area, or have at least one year of experience within the last two years in the specialized area in which they are teaching, or be knowledgeable, skillful and current in the subject matter of the course, class or activity.				
3. CE Records and Quality Improvement				
Agree to maintain all continuing education records for a				
minimum of four years.	Signature:			
,	olgridatio			
Agree to porticipate in the VCENC Quality Improvement				
Agree to participate in the VCEMS Quality Improvement	O'con a ferma o			
Program and in research data accumulation.	Signature:			
Course Completion Certificate/Record				
Provide a copy of the Course Completion	□ Attached			
Certificate/Record that will be issued upon completion of				
each session. Course completion shall state whether the				
course was instructor or nor instructor based.				
VCEMS Office Use Only				
All Requirements Submitted:	Date:			
'				
CEP Application Approved:	Date:			
Approval Letter Sent:	Date:			
Re-Approval Due:	Date:			
Signature of person approving CEP	Date			
Typed or printed name				

COUNTY OF VENTU	RA	EMERGE	NCY MEDI	CAL SERVICES
HEALTH CARE AGE	NCY	POL	ICIES AND	PROCEDURES
Policy Title:			Poli	cy Number
Continuing Education - Field Care Audit			1131	
APPROVED:	It Cll		Doto	luno 1, 2016
Administration:	Steven L. Carroll, Paramedic		Date: June 1, 2016	
APPROVED:			Date: June 1, 2016	
Medical Director:	Angelo Salvucci, M.D.			
Origination Date:	August 1, 1994			
Date Revised:	December 10, 2015	Effoctiv	ctive Date: June 1, 2016	
Date Last Reviewed:	December 10, 2015	Ellectiv		
Next Review Date:	December, 2018			

- I. PURPOSE: 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 Base Hospital shall provide at least one (1) hour of field care audit per month.

IV. PROCEDURE:

- A. All Field Care Audits shall be conducted by a Prehospital Care Coordinator (PCC).
- B. Field Care Audits shall be a minimum of one (1) hour and a maximum of four (4) hours.
- C. When conducting a field care audit, the following guidelines should be utilized:
 - Field Care Audits shall have a minimum of three (3) persons in attendance, one whom shall be a PCC.
 - 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		EME	EMERGENCY MEDICAL SERVICES		
HEALTH CARE AGE	NCY		POLICI	ES AND PROCEDURES	
	Policy Title:			Policy Number	
	Trauma Committees			1402	
APPROVED:	St Cll		Data: June 1 2016		
Administration:	Steven L. Carroll, EMT-P		Date:	June 1, 2016	
APPROVED:			Date: June 1, 2016		
Medical Director:	Angelo Salvucci, M.D.		Date.	Julie 1, 2010	
Origination Date:	June 9, 2011				
Date Revised:	March 11, 2016		Effective Date: June 1, 201		
Date Last Reviewed:	March 11, 2016				
Review Date:	March, 2019				

- 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

 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).

- Based on trauma system maturation and needs, recommend development and/or revisions of policies that impact trauma care.
- 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.
- Reviews trauma registry reports.
- 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.
- 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. Administrative Assistant
 - f. Regional Trauma Committee Representative
- 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 mortality and morbidity review of cases that meet one or more of the audit filter(s) as identified by the committee. Other cases may also

- be reviewed that involve system issues or are regarded as having exceptional educational or scientific benefit.
- Develops audit screens to guide case review. For every case reviewed, provides finding of appropriateness of care rendered, and when appropriate, makes recommendations regarding changes in the system to ensure appropriate care.
- 4. Presents and reviews individual trauma center-specific issues with the goal of awareness, education and collaboration.
- 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 the 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 the
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
- 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 prearranged 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.

- 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	EMERGENCY MEDICAL SERVICES
HEALTH CARE AGENCY	POLICIES AND PROCEDURES
Policy Title:	Policy Number
Trauma Registry and Data	1403
APPROVED:	Data: Juna 1, 2016
Administration: Steven L. Carroll, EMT-P	Date: June 1, 2016
APPROVED:	Date: June 1, 2016
Medical Director: Angelo Salvucci, M.D.	Date. Julie 1, 2010
Origination Date: July 14, 2015	
Date Revised:	Effective Date: June 1, 2016
Date Last Reviewed:	
Review Date: July, 2018	

- PURPOSE: To standardize data elements collected from trauma care facilities to monitor, review, evaluate, and improve the delivery of prehospital advanced life support and hospital trauma care services.
- II. AUTHORITY: Health and Safety Code, §1797.160, §1797.161, and §1798, and California Code of Regulations, Title 22, §100255.
- III. POLICY: The following information shall be collected by Ventura County designated Trauma Centers and Community Hospitals and reported to the Ventura County EMS Agency.
- IV. INCLUSION CRITERIA
 - A. Diagnostic code for any injury included in the following range

ICD-9-CM: 800-959.9

OR

 $ICD-10-CM: S00-S99, T07, T14, T20-T28, T30-T32 \ and \ T79.A1-T79.A9$

AND

At least one injury with a diagnostic code outside the range of the following codes:

905-909.9, 910-924.9, or 930-939.9

S00, S10, S20, S30, S40, S50, S60, S70, S80, S90

- B. Meets at least ONE of the following criteria
 - a. Death
 - b. Hospital admission as either observation or inpatient status
 - c. Interfacility transfer to provide a higher level of trauma care (in or out)
 - d. Meets prehospital trauma triage criteria for Step 1-4

- e. Trauma centers ONLY: full or limited trauma team activation
- C. Data element description
 - 1. Trauma Centers
 - a. Current data components for NTDS® (National Trauma Data Standard)
 - b. Ventura County specific data
 - 1. Hospital account number for ED visit
 - 2. If transported to trauma center by ambulance
 - A. ImageTrend ePCR number
 - B. Trauma Step assigned by EMS
 - 2. Community hospitals
 - a. Date of birth
 - b. Date of ED arrival
 - c. Date of admission
 - d. Hospital account number
 - e. ICD-9 or ICD-10 codes
 - f. Hospital outcome