Public Health Administration Large Conference Room 2240 E. Gonzales, 2nd Floor Oxnard, CA 93036	Pre-hospital Services Committee Agenda	January 08, 2015 9:30 a.m.

I.	**Introductions**	
II.	**Approve Agenda**	
III.	**Minutes**	
IV.	**Medical Issues**	
	A. Other	
V.	**New Business**	
	A. 705.07 – Cardiac Arrest – Asystole/PEA	Dr. Salvucci
	B. 705.08 – Cardiac Arrest – VF/VT	Dr. Salvucci
	C. Other	
VI.	**Old Business**	
	A. 705.11 – Crush Injury/Syndrome	Chris Rosa/Dr. Salvucci
	B. CAM/ART Certification Issues	Mark Komins and Chad Panke
	D. Other	
VII.	**Informational/Discussion Topics**	
	A. 402 – Hospital Diversion	Steve Carroll
	B. air-Q Study Trial Update	Dr. Salvucci
	C. PRESTO Trial Update	Dr. Salvucci
VIII.	**Policies for Review**	
	A. 430 – STEMI Receiving Center Standards	
	B. 440 **–** Code STEMI Interfacility Transfer	
	C. 705.05 – Bites and Stings	
	D. 705.13 - Hypothermia	
	E. 705.22 – Shortness of Breath – Wheezes/Other	
	F. 705.24 – Symptomatic Bradycardia	
IX.	**Agency Reports**	
	A. Fire Departments	
	B. Ambulance Providers	
	C. Base Hospitals	
	D. Receiving Hospitals	
	E. Law Enforcement	
	F. ALS Education Program	
	G. TAG	
	H. EMS Agency	
	I. Other	
X.	**Closing**	

TEMPORARY
PARKING PASS
Expires January 8, 2015

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

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

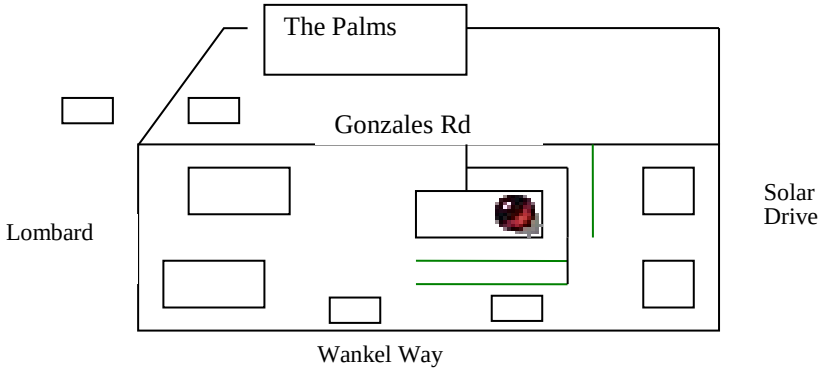
Parking Instructions: Parking at workshop venue is limited. Arrive early to allow for offsite parking if venue parking lot is full.

2240 Gonzales Rd. location
If you park in a designated "green permit parking" slot, fold this flyer in half and place pass face-up on the dash of your car, to avoid receiving a ticket.

2100 Solar Drive
An additional amount of "Green Permit Parking" spaces (only 30) are available in adjacent parking lot, those that back-up against venue parking area, (Enter this parking lot off of Gonzales[3rd driveway] or Solar Drive). **Place this flyer on your dash.** If all of those stalls are occupied, overflow parking is available at The Palms shopping area or side streets.

The Palms - shopping mall
Enter The Palms at Lombard and Gonzales. Allow for a ten minute walk to venue location.

Additional parking is available on side streets, Lombard, Solar and Wankel Way.



Prehospital Services Committee 2014

For Attendance, please initial your name for the current month

Agency	LastName	FirstName	1/9/2014	2/13/2014	3/13/2014	4/10/2014	5/8/2014	6/12/2014	7/10/2014	8/14/2014	9/11/2014	10/9/2014	11/13/2014	12/11/2014	%
AMR	Stefansen	Adriane			AS		AS		AS		AS	AS			
AMR	Panke	Chad	CP		CP				CP			CP			
CMH - ER	Canby	Neil	NC		NC		NC		NC		NC	NC			
CMH - ER	Cobb	Cheryl	CC		CC		DP		CC		CC				
OVCH - ER	Popescu	Dan							DP		DP	DP			
OVCH - ER	Patterson	Betsy	BP		BP				BP		BP	BP			
CSUCI PD	Drehsen	Charles	CD		CD				CD		CD	CD			
CSUCI PD	Rice	Al	AR		AR		AR		AR						
FFD	Herrera	Bill			BH		BH		BH		BH				
FFD	Scott	Bob			BS		BS		BS		BS	BS			
GCA	Norton	Tony	TN		TN				TN		TN	TN			
GCA	Shultz	Jeff	JS		JS		JS		JS		JS	JS			
Lifeline	Rosolek	James	JR		JR		JR		JR		JR	JR			
Lifeline	Winter	Jeff	JW		JW		JW		JW		JW	JW			
LRRMC - ER	Beatty	Matt	MB		MB				MB			MB			
LRRMC - ER	Licht	Debbie	DL		DL		DL		DL		DL				
OFD	Carroll	Scott	SC		SC		KDS		SC		SC	SC			
OFD	Huhn	Stephanie	SH		SH		SH		SH		SH	SH			
SJPVH - ER	Hall	Elaina													
SJPVH - ER	Davies	Jeff					JD					JD			
SJRMC - ER	Larsen	Todd	MR		MR		MR					TL			
SJRMC - ER	McShea	Kathy	KM		KM		KM		KM		KM	KM			
SPFD	Dowd	Andrew	AD		AD				AD						
SVH - ER	Tilles	Ira	IT		IT		IT		IT		IT	IT			
SVH - ER	Hoffman	Jennie	JH		JH				JH		JH	JH			
V/College	O'Connor	Tom	TO		TO		TO				TO	TO			
VCFD	Tapking	Aaron	AT				AT		AT			AT			
VCFD	Utley	Dede	DU		DU		DU		DU		DU				
VNC	Zeller	Scott	NP		NP		SZ		SZ		SZ	SZ			
VNC	Dullam	Joe	JD		JD							JD			
VNC - Dispatch	Gregson	Erica	RS		RS		RS		RS		RS	RS			
VCMC - ER	Chase	David	DC		DC		DC		DC		DC	X			

Agency	LastName	FirstName	1/9/2014	2/13/2014	3/13/2014	4/10/2014	5/8/2014	6/12/2014	7/10/2014	8/14/2014	9/11/2014	10/9/2014	11/13/2014	12/11/2014	%
VCMC - ER	Gallegos	Tom	TG		TG		TG		TG		TG	TG			
VCMC-SPH	Gautam	Pai	MD									PG			
VCMC-SPH	Melgoza	Sarah	SM								SM	SM			
VCSO SAR	Hadland	Don										DH			
VCSO SAR	Seabrook	Jeff	JG						JG			JG			
VFF	Rhoden	Crystal													
VFF	Jones	Brad													
Eligible to Vote	**Date Change/cancelled - not counted against member for attendance**														
Non Voting Members															
AMR	Whitmore	Geneva													
AMR	Taigman	Mike	MT		MT				MT		MT	MT			
CSUCI PD	Rice	Lynn	LR		LR		LR		LR						
EMS	Carroll	Steve	SC		SC		SC		SC		SC	SC			
EMS	Buhain	Ruth													
EMS	Frey	Julie	JF		JF		JF		JF		JF	JF			
EMS	Hadduck	Katy	KH		KH				KH		KH	KH			
EMS	Perez	Randy	RP		RP		RP		RP		RP				
EMS	Rosa	Chris	CR		CR		CR		CR		CR	CR			
EMS	Salvucci	Angelo	AS		AS		AS		AS		AS	AS			
EMS	Beatty	Karen	KB		KB		KB		KB		KB	KB			
LMT	Frank	Steve			SF		SF				SF				
VCMC	Duncan	Thomas					TD		TD						
VNC	Shedlosky	Robin	EG								EG	EG			
VNC	Komins	Mark	MK		MK		MK		MK		MK	MK			

Cardiac Arrest – Asystole/Pulseless Electrical Activity (PEA)

ADULT	PEDIATRIC
BLS Procedures	
If collapse before dispatch, complete 5 cycles (2 minutes) of CPR, then attach AED If witnessed, immediately attach AED Airway management per VCEMS policy	If collapse before dispatch, complete 5 cycles (2 minutes) of CPR, then attach AED If witnessed, immediately attach AED Airway management per VCEMS policy
ALS Prior to Base Hospital Contact	
Assess/treat causes IV/IO access **Epinephrine** • IV/IO – **1:10,000**: 1 mg (10 mL) q 3-5 min If suspected hypovolemia: • **Normal Saline** o IV/IO bolus – 1 Liter ALS Airway Management • ~~If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures~~ Per Ventura County EMS Policies 729 and 710.	Assess/treat causes IV/IO access **Epinephrine 1:10,000** • IV/IO – 0.01mg/kg (0.1 mL/kg) q 3-5 min If suspected hypovolemia: • **Normal Saline** o IV/IO bolus – 20 mL/kg • Repeat x 2 ALS Airway Management • If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures Make early Base Hospital contact for all pediatric cardiac arrests
Base Hospital Orders only	
Tricyclic Antidepressant Overdose • **Sodium Bicarbonate** o IV/IO – 1 mEq/kg • Repeat 0.5 mEq/kg q 5 min Beta Blocker Overdose • **Glucagon** o IV/IO – 2 mg • May give up to 10mg if available Calcium Channel Blocker Overdose • **Calcium Chloride** o IV/IO – 1 gm • Repeat x 1 in 10 min • **Glucagon** o IV/IO – 2 mg • May give up to 10mg if available History of Renal Failure/Dialysis • **Sodium Bicarbonate** o IV/IO – 1 mEq/kg • Repeat 0.5 mEq/kg q 5 min x2 • **Calcium Chloride** o IV/IO – 1 gm • Repeat x 1 in 10 min	Tricyclic Antidepressant Overdose • **Sodium Bicarbonate** o IV/IO – 1 mEq/kg • Repeat 0.5 mEq/kg q 5 min Beta Blocker Overdose • **Glucagon** o IV/IO – 0.1 mg/kg • May give up to 10mg if available Calcium Channel Blocker Overdose • **Calcium Chloride** o IV/IO – 20 mg/kg • Repeat x 1 in 10 min • **Glucagon** o IV/IO – 0.1 mg/kg • May give up to 10mg if available History of Renal Failure/Dialysis • **Sodium Bicarbonate** o IV/IO – 1 mEq/kg • Repeat 0.5 mEq/kg q 5 min x2 • **Calcium Chloride** o IV/IO – 20 mg/kg • Repeat x 1 in 10 min
Consult with ED Physician for further treatment measures	**Consult with ED Physician for further treatment measures**

Additional Information :

- If sustained ROSC (> 30 seconds), perform 12-lead EKG. Transport to SRC.
- If suspected hypovolemia, initiate immediate transport
- In cases of normothermic cardiac arrest patients 18 years and older with unwitnessed cardiac arrest, adequate ventilations, vascular access, and persistent asystole or PEA despite 20 minutes of standard advanced cardiac life support, the base hospital should consider termination of resuscitation in the field. If transported, the patient may be transported Code 2. If unable to contact the base hospital, resuscitative efforts may be discontinued and patient determined to be dead.
- If patient is **hypothermic** – only ONE round of medication administration prior to Base Hospital contact. Field determination of death is discouraged in these patients and they should be transported to the most accessible receiving facility.

Cardiac Arrest – VF/VT

ADULT	PEDIATRIC
BLS Procedures	
If collapse before dispatch, complete 5 cycles (2 minutes) of CPR, then attach AED If witnessed, immediately attach AED Airway management per VCEMS policy	If collapse before dispatch, complete 5 cycles (2 minutes) of CPR, then attach AED If witnessed, immediately attach AED 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** **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** • Per Ventura County EMS Policies 729 and 710. • 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** **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 Torsades de Pointes • Magnesium Sulfate o IV/IO – 2 gm over 2 min • May repeat x 1 in 5 min	Tricyclic Antidepressants • Sodium Bicarbonate o IV/IO – 1 mEq/kg • Repeat 0.5 mEq/kg q 5 min
Consult with ED Physician for further treatment measures ED Physician Order Only 1. If patient converts to narrow complex rhythm greater than 50 bpm and not in 2nd or 3rd degree heart block, and amiodarone not already given, consider amiodarone 150 mg IVPB 2. History of Renal Failure/Dialysis • **Sodium Bicarbonate** o IV/IO – 1 mEq/kg • Repeat 0.5 mEq/kg q 5 min • **Calcium Chloride** o IV/IO – 1 gm • Repeat x 1 in 10 min	Consult with ED Physician for further treatment measures ED Physician Order Only 1. If patient converts to narrow complex rhythm greater than 50 bpm and not in 2nd or 3rd degree heart block, and amiodarone not already given, consider amiodarone 2.5 mg/kg IVPB 2. History of Renal Failure/Dialysis • **Sodium Bicarbonate** o IV/IO – 1 mEq/kg • Repeat 0.5 mEq/kg q 5 min • **Calcium Chloride** o IV/IO – 20 mg/kg over 1 min • Repeat x 1 in 10 min
Additional Information: • If sustained ROSC (>30 seconds), perform 12-lead EKG. Transport to SRC • 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	

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Crush Injury/Syndrome

ADULT	PEDIATRIC
BLS Procedures	
Perform spinal precautions as indicated Determine Potential vs. Actual Crush Syndrome Administer oxygen as indicated	Perform spinal precautions as indicated Determine Potential vs. Actual Crush Syndrome Administer oxygen as indicated
ALS Prior to Base Hospital Contact	
Potential for Ccrush ~~injury~~Syndrome • IV access • Maintain body heat • Release compression • Monitor for cardiac dysrhythmias	Potential for Crush Syndrome~~crush injury~~ • IV access • Maintain body heat • Release compression • Monitor for cardiac dysrhythmias
Communication Failure Protocol	
~~Actual c~~Crush Ssyndrome • Initiate 2nd IV access • **Normal Saline** o IV bolus – 1 Liter • Caution with cardiac and/or renal history • **Sodium Bicarbonate** o IV mix – 1 mEq/kg • Added to 1st Liter of Normal Saline • **Albuterol** o Nebulizer – 5 mg/6 mL • Repeat x 2 • **Morphine** – Per Policy 705 - Pain Control • Maintain body heat • Release compression • Monitor for cardiac dysrhythmias • For cardiac dysrhythmias: o **Calcium Chloride** • IV – 1 gm over 1 min For continued shock • *Repeat* **Normal Saline** o IV bolus – 1 Liter	Crush Syndrome~~Actual crush syndrome~~ • Initiate 2nd IV access if possible or establish IO • **Normal Saline** o IV/IO bolus – 20 mL/kg • Caution with cardiac and/or renal history • **Sodium Bicarbonate** o IV mix– 1 mEq/kg • Added to 1st Liter of Normal Saline • **Albuterol** o Less than 2 years old • Nebulizer – 2.5 mg/3 mL o Repeat x 2 o 2 years old and greater • Nebulizer – 5 mg/6 mL o Repeat x 2 • Maintain body heat • Release compression • Monitor for cardiac dysrhythmias • For cardiac dysrhythmias: o **Calcium Chloride** • IV/IO – 20 mg/kg over 1 min For continued shock • *Repeat* **Normal Saline** o IV/IO bolus – 20 mL/kg
Base Hospital Orders only	
For ~~ongoing extended entrapment and no response to fluid therapy~~persistent hypotension after fluid bolus: • **Dopamine** o IVPB – 10 mcg/kg/min Consult with ED Physician for further treatment measures	For persistent hypotension after fluid bolus~~ongoing extended entrapment and no response to fluid therapy~~: • **Dopamine** o IVPB – 10 mcg/kg/min Consult with ED Physician for further treatment measures

Additional Information:

- Potential Crush ~~Injury~~ Syndrome – Continuous crush injury to torso or extremity above wrist or ankle for 2 hours or less.~~Actively trapped or otherwise involved in a situation that could lead to crush syndrome, *BUT NOT YET SYMPTOMATIC*~~
- ~~Actual~~ Crush Syndrome – Continuous crush injury to torso or extremity above wrist or ankle for greater than 2 hours.~~Actively trapped or recently freed AND exhibiting signs/symptoms of crush related injury.~~
- If elderly or cardiac history is present, use caution with fluid administration. Reassess and treat accordingly.
- Dysrhythmias are usually secondary to Hyperkalemia. ECG monitor may show: Peaked T-waves, Absent P-waves, widened QRS complexes, bradycardia
- Calcium Chloride and Sodium Bicarbonate precipitate when mixed. Strongly consider starting a second IV (if feasible) for administration of Calcium Chloride

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Effective Date: December 1, 2010
Next Review Date: July, 2014

Date Revised: August, 2010
Last Reviewed: August, 2012

VCEMS Medical Director

DRAFT

Effective Date: December 1, 2010
Next Review Date: July, 2014

Date Revised: August, 2010
Last Reviewed: August, 2012

VCEMS Medical Director

COUNTY OF VENTURA HEALTH CARE AGENCY	EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title Patient Diversion/Emergency Department Closures	Policy Number: 402
APPROVED: Administration: Steven L. Carroll, Paramedic	Date: December 1, 2014
APPROVED: Medical Director: Angelo Salvucci, M.D.	Date: December 1, 2014
Origination Date: January 1990 Revised Date: September 11, 2014 Date Last Reviewed: September 11, 2014 Review Date: September, 2017	Effective Date: December 1, 2014

I. PURPOSE: To define the procedures by which Emergency Medical Services (EMS) providers and/or Base Hospitals (BH) may:

A. Transport emergency patients to the most accessible medical facility that is staffed, equipped, and prepared to administer emergency care appropriate to the needs of the patient.

B. Provide a mechanism for a hospital in the Ventura County (VC) EMS system to have patients diverted away from its emergency department when it has been determined that the hospital is not staffed, equipped, and/or prepared to care for additional or specific types of patients.

C. Assure that Advanced Life Support (ALS) units are not unreasonably removed from their area of primary response when transporting patients to a medical facility.

II. AUTHORITY: California Administrative Code, Title 13, Section 1105(c): "In the absence of decisive factors to the contrary, ambulance drivers shall transport emergency patients to the most accessible medical facility equipped, staffed, and prepared to receive emergency cases and administer emergency care appropriate to the needs of the patient".

III. POLICY: Hospitals may divert patients according to the conditions described below. This policy shall not negate prearranged interhospital triage and transport agreements approved by VC EMS Basic Life Support (BLS) patients will be transported to the nearest unless it is closed by internal disaster.

IV. DEFINITIONS:

A. ALS Patient: A patient who meets the criteria for base hospital contact.

B. BLS Patient: A patient whose illness or injury requires BLS care or a patient in a BLS unit, irrespective of the level of care required for the patient's illness or injury.

V. PROCEDURE

A. DIVERSION REQUEST CATEGORIES

A hospital may request that ambulances be diverted for the following reasons using the following terminology:

1. Internal Disaster

   Hospital's emergency department cannot receive any patients because of a physical plant breakdown (e.g. fire, bomb threat, power outage, safety issues in the ED, etc.).

   NOTE: Activation of a hospital's internal plan to handle diversions (see Section IV.D) does NOT constitute an internal disaster.

2. Emergency Department Saturation

   The hospital's emergency department resources are fully committed to critically and/or seriously ill patients and are not available for additional ALS patients.

3. Lack of Neurosurgical coverage

   Hospital is unable to provide appropriate care due to unavailability of a neurosurgeon, and is therefore not an ideal destination for patients likely to require these services.

4. Intensive Care Unit (ICU) / Critical Care Unit (CCU) Saturation

   Hospital's ICUs do not have any available licensed beds to care for additional patients, and is therefore not an ideal destination for patients likely to require these services.

5. CT Scanner Inoperative

   Hospital's CT scanner is not functioning and therefore not the ideal destination for patients with blunt or penetrating head trauma, truncal trauma, or a prehospital Stroke Alert patient.

B. PATIENT DESTINATION

1. Internal Disaster
   a. A hospital on diversion due to internal disaster shall not receive patients.
   b. Base hospitals shall not direct ALS units to transport patients to any medical facility that has requested diversion of ALS patients due to an internal disaster.
2. Diversion requests will be honored provided that:
   a. The involved ALS unit estimates that it can reach an "open" facility without compromising the patient's condition by extending the Code 3 en route time from the incident location for hospitals on diversion due to:
      1) ICU/CCU saturation,

2) Emergency Department saturation, or

3) Neuro/CT scanner limitations for appropriately selected patients.

b. The patient does not exhibit an uncontrollable problem in the field. An "Uncontrollable Problem" is defined as:

1) Unstable vital signs

2) Cardiac Arrest

3) Severe Respiratory Distress

4) Unstable Airway

5) Profound Shock

6) Status Epilepticus

7) OB patient with imminent delivery

8) Life threatening arrythmia

9) Any Patient that the paramedic on scene or the BH MD feels would likely deteriorate due to diversion.

3. Destination while adjacent hospitals are on diversion

a. If adjacent hospitals within an area grouping are on diversion for the same diversion category, patients cannot be diverted for that reason, and the patient will be transported to the closest medical facility.

b. Guidelines for potential diversion destination when a hospital is on diversion based on patient location and estimated transport times are as follows:

Hospital Groupings/Areas

1. **Area 1** (Ojai): Ojai Valley Community Hospital, Community Memorial Hospital, Ventura County Medica lCenter, Santa Paula Memoria lHospital
2. **Area 2** (Santa Paula/Fillmore): Santa Paula Memorial Hospital, Ventura County Medical Center, Community Memorial Hospital, Ojai Valley Community Hospital
3. **Area 3** (Simi Valley): Simi Valley Hospital, Los Robles Hospital and Medical Center, St. Johns Pleasant Valley Hospital
4. **Area 4** (Thousand Oaks): Los Robles Hospital and Medical Center, Simi Valley Hospital, St. Johns Pleasant Valley Hospital
5. **Area 5** (Camarillo): St. Johns Pleasant Valley Hospital, St. Johns Regional Medical Center, Los Robles Regional Medical Center,

Simi Valley Hospital, Ventura County Medical Center, Community Memorial Hospital

6. **Area 6** (Oxnard): St. Johns Regional Medical Center, Ventura County Medical Center, Community Memorial Hospital, St. Johns Pleasant Valley Hospital
7. **Area 7** (Ventura): Ventura County Medical Center, Community Memorial Hospital, St. Johns Regional Medical Center, Ojai Valley Community Hospital, Santa Paula Memorial Hospital.

As needed, an MICN may divert a patient to a hospital outside of Ventura County.

BLS ambulances shall notify receiving hospitals of their impending arrival.

4. Notwithstanding any other provisions of this policy, and in accordance with VCEMS Policy 604, Patient Transport and Destination, final authority for patient destination rests with the Base Hospital.

C. PROCEDURE FOR REQUESTING DIVERSION OF ALS PATIENTS

1. The hospital administrator or his/her designee must authorize the need for diversion.
2. To initiate, update or cancel a diversion, the Administrator or his/her designee shall make the status change via the ReddiNet system.
   a. Hospitals on diversion status shall immediately update their status via the ReddiNet system.
   b. Problems with policy and procedure related to diversion notification will be directed to VC EMS during normal business hours or the on-call VC EMS administrator after normal business hours
   c. Problems arising during a diversion, requiring immediate action should be directed to VC EMS during normal business hours or the on-call VC EMS administrator after normal business hours.
3. VC EMS staff will perform unannounced site visits to hospitals on diversion status to ensure compliance with these guidelines.

D. Hospitals shall develop internal policies and procedures for authorizing diversion of patients in accordance with this policy. These policies shall include internal activation of

backup procedures. These policies and procedures shall be approved according to the hospital policy approval procedure and shall be available to the EMS staff for review.

COUNTY OF VENTURA HEALTH CARE AGENCY	EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: STEMI Receiving Center (SRC) Standards	Policy Number 430
APPROVED: Administration:	Date: 12/01/07
APPROVED: Medical Director: Angelo Salvucci, M.D.	Date: 12/0107
Origination Date: July 28, 2006 Date Revised: June 14, 2007 Last Review: December 13, 2012 Review Date: November 30, 2014	Effective Date: December 1, 2007

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. Designate a SRC Coordinator who will have the responsibility for communication with VC EMS.
3. Operate a cardiac catheterization lab licensed by the Department of Health Services and approved for emergency percutaneous coronary interventions.
4. Maintain a daily roster of on-call cardiologists with privileges in percutaneous coronary interventions.
5. Have criteria for patients to receive emergent angiography or emergent fibrinolysis, based on physician decisions for individual patients.
6. Collect and submit data

b. as identified by the STEMI QI Committee

8. Maintain a hospital Quality Improvement Program.
9. Actively participate in the Ventura County EMS STEMI Quality Improvement Program.
10. Will accept all ambulance-transported patients with ***ACUTE MI SUSPECTED*** 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

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.
3. 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 VENTURA
EMERGENCY MEDICAL SERVICES

STEMI RECEIVING CENTER
CRITERIA COMPLIANCE CHECKLIST

SRC _____ Date: _____

	YES	NO
An SRC, approved and designated by the Ventura County , shall:		
1. Operate a cardiac catheterization lab licensed by the Department of Health Services and approved for emergency percutaneous coronary interventions.		
2. Maintain a daily roster of on-call cardiologists with privileges in percutaneous coronary interventions.		
3. Have criteria for patients to receive emergent angiography or emergent fibrinolysis, based on physician decisions for individual patients.		
4. Collect and submit data as required by VC EMS.		
5. Maintain a quality improvement program		
6. Designate a SRC Coordinator		
7. Actively participate in the Ventura County EMS STEMI Quality Improvement Program.		
8. Have policies and procedures that allow the automatic acceptance of all STEMI patients transferred from Ventura County hospitals.		

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: "Code STEMI": Transfer of Patients with STEMI for PCI		Policy Number 440
APPROVED: Administration:	Steven L. Carroll, EMT-P	Date: 12/01/09
APPROVED: Medical Director:	Angelo Salvucci, M.D.	Date: 12/01/09
Origination Date: Date Revised: Last Reviewed: Review Date:	July 1, 2007 June 11, 2009 July 12, 2012 September, 2014	Effective Date: December 1, 2009

I. PURPOSE: To define the "Code STEMI" process by which patients with a STEMI are transferred to a STEMI Receiving Center (SRC) for emergency percutaneous coronary intervention (PCI).

II. AUTHORITY: Health and Safety Code, Sections 1797.220 and 1798. California Code of Regulations, Title 22, Sections 100147 and 100169.

III. DEFINITIONS:

A. STEMI: ST Segment Elevation Myocardial Infarction.

B. STEMI Receiving Center (SRC): an acute care hospital with percutaneous coronary intervention (PCI) services that has been designated according to VC EMS Policy 430.

C. STEMI Referral Hospital (SRH): an acute care hospital in Ventura County that meets the requirements for a receiving hospital in VC EMS Policy 420 and is not designated as a STEMI Receiving Center according to VC EMS Policy 430.

D. PCI: Percutaneous Coronary Intervention.

IV. POLICY:

A. STEMI Referral Hospitals will:

1. Assemble and maintain a "STEMI Pack" in the emergency department to contain all of the following:
    a. Checklist with phone numbers of Ventura County SRCs.
    b. Preprinted template order sheet with recommended prior-to-transfer treatments. Treatment guidelines will be developed with input from the SRH and SRC cardiologists.
    c. Patient Consent/Transfer Forms.
    d. Treatment summary sheet.
    e. Ventura County EMS Code STEMI data entry form.
2. Have policies, procedures, and a quality improvement system in place to minimize door-to-ECG and STEMI-Dx-to-transfer times.

3. Establish policies and procedures to make personnel available to accompany the patient during the transfer to the SRC. These policies will include patient criteria for requiring an RN to accompany patient.

B. Ambulance Dispatch Center will:

1. Respond to a “Code STEMI” transfer request by immediately dispatching the closest available ALS ambulance to the requesting SRH.

C. Ambulance Companies

1. Ambulance Companies will:
   a. Respond immediately upon request for “Code STEMI” transfer.
   b. Staff all ambulances with a minimum of one paramedic who has been trained in the use of intravenous heparin and nitroglycerine drips, and the pump being used, according to VC EMS Policy 722.
2. Transports performed according to this policy are not to be considered an interfacility transport as it pertains to ambulance contract compliance.

D. STEMI Receiving Centers will:

1. Maintain accurate status information on ReddiNet regarding the availability of a cardiac catheterization lab.
2. Publish a single phone number, that is answered 24/7, to receive notification of a STEMI transfer.
3. Immediately upon initial notification by a transferring physician at an SRH, accept in transfer all patients who have been diagnosed with a STEMI and who, in the judgment of the transferring physician, require urgent PCI.
4. Authorize the emergency physician on duty to confirm the acceptance in transfer of any patient with a STEMI.
5. Establish an internal communications plan that assures the immediate notification of all necessary individuals, including the cardiac catheterization services staff and on-call interventional cardiologist, of the transfer.
6. Adopt procedures to make an ICU/CCU bed available or to make alternate arrangements for post-PCI care.

V. PROCEDURE:

A. Upon diagnosis of STEMI, and after discussion with the patient, the SRH will:

1. Determine availability of the SRC by checking ReddiNet.
2. Immediately call the Ventura County Fire Communication Center at 805-384-1500 for an ambulance.

3. Identify their facility to the dispatcher and advise they have a Code STEMI transfer to [SRC].
4. After calling for ambulance, the SRH transferring physician will notify the SRC emergency physician of the transfer.
5. Perform all indicated diagnostic tests and treatments.
6. Complete transfer consent, treatment summary, and Code STEMI data forms.
7. Include copies of the ED face sheet and demographic information.
8. Arrange for one or more healthcare staff, as determined by the clinical status of the patient, to accompany the patient to the SRC.
    a. If, because of unusual and unanticipated circumstances, no healthcare staff is available for transfer, the SRH may contact the responding ambulance company to make a paramedic or EMT available.
    b. If neither the SRH or ambulance company has available personnel, a CCT transfer may be requested.
9. Contact SRC for nurse report at the time of, or immediately after, the ambulance departs.

B. Upon request for "Code STEMI" transfer, the dispatch center will dispatch the closest ALS ambulance and verbalize "MEDxxx Code STEMI from [SRH]". The SRC will be denoted in the Incident Comments, which will display on the Mobile Data Computer (MDC). If a unit does not have an operational MDC, the SRH will advise the responding ambulance personnel of the SRC.

C. Upon notification, the ambulance will respond Code (lights and siren) and the ambulance personnel will notify their ambulance company supervisor of the "Code STEMI" transfer.

D. Ambulance units will remain attached to the incident and FCC will track their dispatch, en-route, on scene, en-route hospital, at hospital, and available times.

E. The patient shall be urgently transferred without delay. Every effort will be made to minimize on-scene time.
1. All forms should be completed prior to ambulance arrival.
2. Any diagnostic test results may be relayed to the SRC at a later time.
3. Intravenous drips may be discontinued or remain on the ED pump.
4. Ambulance personnel will place defibrillation pads on the patient.

F. Upon notification, the SRC will notify the interventional cardiologist and cardiac catheterization staff, who will respond immediately and prepare for the PCI procedure.

G. The SRH and SRC shall review all STEMI transfers within 24 hours for appropriate and timely care and to identify opportunities for improvement. Results will be reviewed and discussed at the Countywide EMS STEMI CQI Committee.

Bites and Stings

BLS Procedures

Animal/insect bites:

- Flush site with sterile water
- Control bleeding
- Apply bandage

Snake bites/envenomations:

- Remove rings and constrictions
- Immobilize the affected part in dependent position
- Avoid excessive activity

Bee stings:

- If present, remove stinger
- Apply ice pack

Jellyfish stings:

- Rinse thoroughly with normal saline
  - DO NOT:
    - Rinse with fresh water
    - Rub with wet sand
    - Apply heat

All other marine animal stings:

- If present, remove barb
- Immerse in hot water if available

Administer oxygen as indicated

All bites other than snake bites may be treated as a BLS call

ALS Prior to Base Hospital Contact

IV access for snake bites

Monitor for allergic reaction or anaphylaxis

Morphine – per Policy 705 - Pain Control

Base Hospital Orders only

Consult with ED Physician for further treatment measure

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VCEMS Medical Director

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Hypothermia

BLS Procedures

Gently move patient to warm environment and begin passive warming

Increase ambulance cabin heat, if applicable

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

Administer oxygen as indicated

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

- Acceptable range for severe hypothermia:
  - Respiratory Rate: at least 4 breaths per minute
  - Heart rate: at least 20 beats per minute

◦ Expedite transport if no shivering (indicates core temp below 90°)

ALS Prior to Base Hospital Contact

IV access (if needed for medication or fluid administration)

- If administering fluid, avoid administering cold fluids.

Base Hospital Orders only

Consult with ED Physician for further treatment measures

Symptomatic Bradycardia

ADULT (HR < 45 bpm)	PEDIATRIC (HR < 60 bpm)
BLS Procedures	
Administer oxygen as indicated Supine position as tolerated	Administer oxygen as indicated Assist ventilations if needed If significant ALOC, initiate CPR
ALS Prior to Base Hospital Contact	
IV access **Atropine** • IV – 0.5 mg (1 mg/10 mL) **Transcutaneous Pacing (TCP)** • Should be initiated only if patient has signs of hypoperfusion • Should be started immediately for 3º heart blocks and 2º Type 2 (Mobitz II) heart blocks • If pain is present during TCP o **Morphine** – per policy 705 - Pain Control	IV access • IO access only if pt in extremis **Epinephrine 1:10,000** • IV/IO – 0.01 mg/kg (0.1 mL/kg) q 3-5 min
Communication Failure Protocol	
If symptoms persist for 3 minutes after first atropine dose and if no capture with TCP • **Atropine** o IV – 0.5 mg q 3-5 min • Max 0.04 mg/kg • **Dopamine** o IVPB – 10 mcg/kg/min • Use if patient continues to be unresponsive to atropine and TCP	
Base Hospital Orders only	
For suspected hyperkalemia • **Calcium Chloride** o IV – 1 gm over 1 min • Withhold if suspected digitalis toxicity • **Sodium Bicarbonate** o IV – 1 mEq/kg	**Atropine** • IV/IO – 0.02 mg/kg o Minimum dose – 0.1 mg
Consult with ED Physician for further treatment measures	Consult with ED Physician for further treatment measures
Additional Information • Bradycardia does not require treatment unless signs and symptoms are present (chest pain, altered level of consciousness, abnormal skin signs, profound weakness, or low BP)	