A Department of Ventura County Health Care Agency

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October 21, 2019

Lisa Galindo
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10901 Gold Center Drive, Suite 400
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Dear Lisa,

I am pleased to submit the 2018 Ventura County EMS Plan Update for your review including updated Tables 1 through 11. Additionally, the Ambulance Zone Summary Forms are being resubmitted, however, there have been no changes to these documents since the last submission.

Ventura County EMS has not developed an enhanced level pediatric emergency medical and critical care system as addressed in Standard 5.10. Ventura County does have two hospitals with Pediatric Intensive Care Units (PICU), however, continued issues with very low pediatric volume and funding difficulties remain a significant challenge for any further pediatric expansion. We will continue to work with our local hospitals and prehospital providers to identify opportunities for improved access to pediatric specialty resources.

Ventura County has one hospital that is licensed as a standby emergency department and therefore is designated as an Alternate Receiving Facility. Ojai Valley Community Hospital in Ojai serves a rural area that is geographically separated from our larger population areas. The closest basic emergency department is located about 20 miles to the south. This hospital operates with full-time staff including an emergency physician on-site at all times, however, their facility does not meet the physical requirements to be licensed as a basic emergency department. VCEMS Policy 420, addresses the designation of a standby emergency department as an ambulance receiving center and a copy of our policy is provided with this EMS Plan update. Additionally, I have included a copy of our last review and approval for this facility.

In response to the recently enacted STEMI and Stroke specialty care system regulations, Ventura County is in the process of formalizing our long standing STEMI and Stroke programs. As required, copies of our Ventura County STEMI and Stroke Plans are attached to this plan submission for your review.

Significant changes in the 2018 reporting period include the initiation of a comprehensive EMS System Assessment, the absorption of the Santa Paula Fire Department into the Ventura County Fire Protection District, the ongoing collaboration with our behavioral health partners in the Ventura County Opioid Abuse Suppression Taskforce (COAST) program, the implementation of the Oxnard Fire Department's paramedic program and the opening of a replacement Community Memorial Hospital in December. Operationally, 2018 was exceptionally challenging with the continuing effects of the devastating Thomas Fire and a mutual aid request to assist with the Montecito Mudslide in January. In November, Ventura County experienced a tragic mass shooting at the Borderline Bar and Grill in Thousand Oaks, which resulted in numerous injuries and 12 deaths, including the loss of a Sheriff's Sergeant who was the first to respond to the scene. The next day, the Hill and Woolsey Fires erupted, burning over 96,000 acres in Ventura County and neighboring Los Angeles County, killing three people and destroying over 1600 homes. These events tested every aspect of our emergency response, disaster and recovery systems, and we are proud of how our EMS system responded to these extraordinary challenges.

Please feel free to contact me at (805) 981-5305 should you require any additional information or should you have any questions.

Sincerely,

Steve Carroll
EMS Administrator

SECTION II - ASSESSMENT OF SYSTEM 2018
E. Facilities and Critical Care

Enhanced Level: Pediatric Emergency Medical and Critical Care System

Minimum Standard	Recommended Guidelines
5.10 Local EMS agencies that develop pediatric emergency medical and critical care systems shall determine the optimal system, including: a) the number and role of system participants, particularly of emergency departments, b) the design of catchment areas (including areas in other counties, as appropriate), with consideration of workload and patient mix, c) identification of patients who should be primarily triaged or secondarily transferred to a designated center, including consideration of patients who should be triaged to other specially care centers, d) identification of providers who are qualified to transport such patients to a designated facility, e) identification of tertiary care centers for pediatric critical care and pediatric trauma, f) the role of non-pediatric specially care hospitals including those which are outside of the primary triage area, and g) a plan for monitoring and evaluation of the system.	

Does not currently meet standard	X	Meets minimum standard		Meets recommended guidelines		Short-range plan		Long-range plan	X

CURRENT STATUS:

Ventura County EMS does not currently meet the minimum standard for this section as we have not developed a pediatric emergency medical and critical care system. The County of Ventura currently has one certified Emergency Room Approved for Pediatrics (EDAP) and two Pediatric Intensive Care Units (PICU), one located at Los Robles Hospital and Medical Center in Thousand Oaks and the other reopened in 2018 at Ventura County Medical Center (VCMC) in Ventura. As necessary, local hospitals work with pediatric specialty centers in neighboring counties to coordinate transfers when a higher level of care is needed. We continue to be interested in options to increase pediatric care capabilities in Ventura County.

SECTION II - ASSESSMENT OF SYSTEM 2018
E. Facilities and Critical Care

5.10 (Cont'd.)

COORDINATION WITH OTHER EMS AGENCIES:

N/A

NEEDS:

Ventura County EMS will continue to work with our local hospitals and prehospital providers to identify opportunities for improved access to pediatric specialty resources.

OBJECTIVE:

Plan to revisit the pediatric capabilities in FY20-21.

LEMSA: Ventura **FY: 2018-19**

Standard	EMSA Requirement	Meets Minimum Req.	Short Range (one year or less)	Long Range (more than one year)	Progress	Objective
5.1	Pediatric System Design	☐	☐	☑	VCEMS does not currently meet the minimum standards. VCEMS	
		☐	☐	☐		
		☐	☐	☐		
		☐	☐	☐		
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TABLE 1: MINIMUM STANDARDS/RECOMMENDED GUIDELINES

A. SYSTEM ORGANIZATION AND MANAGEMENT

	Does not currently meet standard	Meets minimum standard	Meets recommended guidelines	Short-range plan	Long-range plan
Agency Administration:					
1.01 LEMSA Structure		X			
1.02 LEMSA Mission		X			
1.03 Public Input		X			
1.04 Medical Director		X	X		
Planning Activities:					
1.05 System Plan		X			
1.06 Annual Plan Update		X			
1.07 Trauma Planning*		X	X		
1.08 ALS Planning*		X			
1.09 Inventory of Resources		X			
1.10 Special Populations		X	X		
1.11 System Participants		X	X		
Regulatory Activities:					
1.12 Review & Monitoring		X			
1.13 Coordination		X			
1.14 Policy & Procedures Manual		X			
1.15 Compliance w/Policies		X			
System Finances:					
1.16 Funding Mechanism		X			
Medical Direction:					
1.17 Medical Direction*		X			
1.18 QA/QI		X	X		
1.19 Policies, Procedures, Protocols		X	X		

TABLE 1: MINIMUM STANDARDS/RECOMMENDED GUIDELINES

A. SYSTEM ORGANIZATION AND MANAGEMENT (continued)

	Does not currently meet standard	Meets minimum standard	Meets recommended guidelines	Short-range plan	Long-range plan
1.20 DNR Policy		X			
1.21 Determination of Death		X			
1.22 Reporting of Abuse		X			
1.23 Interfacility Transfer		X			
Enhanced Level: Advanced Life Support					
1.24 ALS Systems		X	X		
1.25 On-Line Medical Direction		X	X		
Enhanced Level: Trauma Care System:					
1.26 Trauma System Plan		X			
Enhanced Level: Pediatric Emergency Medical and Critical Care System:					
1.27 Pediatric System Plan		X			
Enhanced Level: Exclusive Operating Areas:					
1.28 EOA Plan		X			

TABLE 1: MINIMUM STANDARDS/RECOMMENDED GUIDELINES

B. STAFFING/TRAINING

	Does not currently meet standard	Meets minimum standard	Meets recommended guidelines	Short-range plan	Long-range plan
Local EMS Agency:					
2.01 Assessment of Needs		X			
2.02 Approval of Training		X			
2.03 Personnel		X			
Dispatchers:					
2.04 Dispatch Training		X	X		
First Responders (non-transporting):					
2.05 First Responder Training		X	X		
2.06 Response		X			
2.07 Medical Control		X			
Transporting Personnel:					
2.08 EMT-I Training		X	X		
Hospital:					
2.09 CPR Training		X			
2.10 Advanced Life Support		X			
Enhanced Level: Advanced Life Support:					
2.11 Accreditation Process		X			
2.12 Early Defibrillation		X			
2.13 Base Hospital Personnel		X			

TABLE 1: MINIMUM STANDARDS/RECOMMENDED GUIDELINES

C. COMMUNICATIONS

	Does not currently meet standard	Meets minimum standard	Meets recommended guidelines	Short-range plan	Long-range plan
Communications Equipment:					
3.01 Communication Plan*		X	X		
3.02 Radios		X	X		
3.03 Interfacility Transfer*		X			
3.04 Dispatch Center		X			
3.05 Hospitals		X	X		
3.06 MCI/Disasters		X			
Public Access:					
3.07 9-1-1 Planning/ Coordination		X	X		
3.08 9-1-1 Public Education		X			
Resource Management:					
3.09 Dispatch Triage		X	X		
3.10 Integrated Dispatch		X	X		

TABLE 1: MINIMUM STANDARDS/RECOMMENDED GUIDELINES

D. RESPONSE/TRANSPORTATION

	Does not currently meet standard	Meets minimum standard	Meets recommended guidelines	Short-range plan	Long-range plan
Universal Level:					
4.01 Service Area Boundaries*		X	X		
4.02 Monitoring		X	X		
4.03 Classifying Medical Requests		X			
4.04 Prescheduled Responses		X			
4.05 Response Time*		X			
4.06 Staffing		X			
4.07 First Responder Agencies		X			
4.08 Medical & Rescue Aircraft*		X			
4.09 Air Dispatch Center		X			
4.10 Aircraft Availability*		X			
4.11 Specialty Vehicles*		X	X		
4.12 Disaster Response		X			
4.13 Intercounty Response*		X	X		
4.14 Incident Command System		X			
4.15 MCI Plans		X			
Enhanced Level: Advanced Life Support:					
4.16 ALS Staffing		X	X		
4.17 ALS Equipment		X			
Enhanced Level: Ambulance Regulation:					
4.18 Compliance		X			
Enhanced Level: Exclusive Operating Permits:					
4.19 Transportation Plan		X			
4.20 “Grandfathering”		X			
4.21 Compliance		X			
4.22 Evaluation		X			

TABLE 1: MINIMUM STANDARDS/RECOMMENDED GUIDELINES

E. FACILITIES/CRITICAL CARE

	Does not currently meet standard	Meets minimum standard	Meets recommended guidelines	Short-range plan	Long-range plan
Universal Level:					
5.01 Assessment of Capabilities		X			
5.02 Triage & Transfer Protocols*		X			
5.03 Transfer Guidelines*		X			
5.04 Specialty Care Facilities*		X			
5.05 Mass Casualty Management		X	X		
5.06 Hospital Evacuation*		X			
Enhanced Level: Advanced Life Support:					
5.07 Base Hospital Designation*		X			
Enhanced Level: Trauma Care System:					
5.08 Trauma System Design		X			
5.09 Public Input		X			
Enhanced Level: Pediatric Emergency Medical and Critical Care System:					
5.10 Pediatric System Design	X				X
5.11 Emergency Departments		X			X
5.12 Public Input		X			
Enhanced Level: Other Specialty Care Systems:					
5.13 Specialty System Design		X			
5.14 Public Input		X			

TABLE 1: MINIMUM STANDARDS/RECOMMENDED GUIDELINES

F. DATA COLLECTION/SYSTEM EVALUATION

	Does not currently meet standard	Meets minimum standard	Meets recommended guidelines	Short-range plan	Long-range plan
Universal Level:					
6.01 QA/QI Program		X	X		
6.02 Prehospital Records		X			
6.03 Prehospital Care Audits		X	X		
6.04 Medical Dispatch		X			
6.05 Data Management System*		X	X		
6.06 System Design Evaluation		X			
6.07 Provider Participation		X			
6.08 Reporting		X			
Enhanced Level: Advanced Life Support:					
6.09 ALS Audit		X	X		
Enhanced Level: Trauma Care System:					
6.10 Trauma System Evaluation		X			
6.11 Trauma Center Data		X	X		

TABLE 1: MINIMUM STANDARDS/RECOMMENDED GUIDELINES

G. PUBLIC INFORMATION AND EDUCATION

	Does not currently meet standard	Meets minimum standard	Meets recommended guidelines	Short-range plan	Long-range plan
Universal Level:					
7.01 Public Information Materials		X	X		
7.02 Injury Control		X	X		
7.03 Disaster Preparedness		X	X		
7.04 First Aid & CPR Training		X	X		

TABLE 1: MINIMUM STANDARDS/RECOMMENDED GUIDELINES

H. DISASTER MEDICAL RESPONSE

	Does not currently meet standard	Meets minimum standard	Meets recommended guidelines	Short-range plan	Long-range plan
Universal Level:					
8.01 Disaster Medical Planning*		X			
8.02 Response Plans		X	X		
8.03 HazMat Training		X			
8.04 Incident Command System		X	X		
8.05 Distribution of Casualties*		X	X		
8.06 Needs Assessment		X	X		
8.07 Disaster Communications*		X			
8.08 Inventory of Resources		X	X		
8.09 DMAT Teams		X			
8.10 Mutual Aid Agreements*		X			
8.11 CCP Designation*		X			
8.12 Establishment of CCPs		X			
8.13 Disaster Medical Training		X	X		
8.14 Hospital Plans		X	X		
8.15 Interhospital Communications		X			
8.16 Prehospital Agency Plans		X	X		
Enhanced Level: Advanced Life Support:					
8.17 ALS Policies		X			
Enhanced Level: Specialty Care Systems:					
8.18 Specialty Center Roles		X			
Enhanced Level: Exclusive Operating Areas/Ambulance Regulations:					
8.19 Waiving Exclusivity		X			

TABLE 2: SYSTEM ORGANIZATION AND MANAGEMENT

Reporting Year: ___2018_____________

NOTE: Number (1) below is to be completed for each county. The balance of Table 2 refers to each agency.

1. Percentage of population served by each level of care by county:
(Identify for the maximum level of service offered; the total of a, b, and c should equal 100%.)

County: ______Ventura____

A.	Basic Life Support (BLS)	_________%
B.	Limited Advanced Life Support (LALS)	_________%
C.	Advanced Life Support (ALS)	___100___%

2. Type of agency
a) Public Health Department
b) County Health Services Agency
c) Other (non-health) County Department
d) Joint Powers Agency
e) Private Non-Profit Entity
f) Other: ________________________________

3. The person responsible for day-to-day activities of the EMS agency reports to
a) Public Health Officer
b) Health Services Agency Director/Administrator
c) Board of Directors
d) Other: Public Health Director

4. Indicate the non-required functions which are performed by the agency:

Implementation of exclusive operating areas (ambulance franchising)	x
Designation of trauma centers/trauma care system planning	x
Designation/approval of pediatric facilities	x
Designation of other critical care centers	x
Development of transfer agreements	
Enforcement of local ambulance ordinance	x
Enforcement of ambulance service contracts	x
Operation of ambulance service	
Continuing education	x
Personnel training	x
Operation of oversight of EMS dispatch center	x
Non-medical disaster planning	
Administration of critical incident stress debriefing team (CISD)	x

TABLE 2: SYSTEM ORGANIZATION AND MANAGEMENT (cont.)

Administration of disaster medical assistance team (DMAT)	
Administration of EMS Fund [Senate Bill (SB) 12/612]	x
Other:	
Other:	
Other:	

5. EXPENSES

Salaries and benefits (All but contract personnel)	$ 1,522,417
Contract Services (e.g. medical director)	298,982
Operations (e.g. copying, postage, facilities)	190,782
Travel	34,262
Fixed assets	13,103
Indirect expenses (overhead)	
Ambulance subsidy	49,575
EMS Fund payments to physicians/hospital	1,505,231
Dispatch center operations (non-staff)	
Training program operations	
Other: Vehicle Replacement	280,467
Other:	
Other:	
TOTAL EXPENSES	$ 3,894,819

6. SOURCES OF REVENUE

Special project grant(s) [from EMSA]	$
Preventive Health and Health Services (PHHS) Block Grant	
Office of Traffic Safety (OTS)	
State general fund	
County general fund	706,920
Other local tax funds (e.g., EMS district)	
County contracts (e.g. multi-county agencies)	435,941
Certification fees	65,577
Training program approval fees	
Training program tuition/Average daily attendance funds (ADA)	
Job Training Partnership ACT (JTPA) funds/other payments	
Base hospital application fees	

TABLE 2: SYSTEM ORGANIZATION AND MANAGEMENT (cont.)

Trauma center application fees	
Trauma center designation fees	150,000
Pediatric facility approval fees	
Pediatric facility designation fees	
Other critical care center application fees	
Type:	
Other critical care center designation fees	
Type:	
Ambulance service/vehicle fees	237,771
Contributions	
EMS Fund (SB 12/612)	2,295,504
Other grants:	
Other fees: Health Fees	3,106
Other (specify):	
TOTAL REVENUE	$ 3,894,819

TOTAL REVENUE SHOULD EQUAL TOTAL EXPENSES.
IF THEY DON'T, PLEASE EXPLAIN.

TABLE 2: SYSTEM ORGANIZATION AND MANAGEMENT (cont.)

7. Fee structure

_____ We do not charge any fees

__X__ Our fee structure is:

Item	Fee
First responder certification	$ N/A
EMS dispatcher certification	N/A
EMT-I certification	132.00
EMT-I recertification	93.00
EMT-defibrillation certification	N/A
EMT-defibrillation recertification	N/A
AEMT certification	N/A
AEMT recertification	N/A
EMT-P accreditation	77.00
Mobile Intensive Care Nurse/Authorized Registered Nurse certification	N/A
MICN/ARN recertification	N/A
EMT-I training program approval	472.00
AEMT training program approval	N/A
EMT-P training program approval	675.00
MICN/ARN training program approval	N/A
Base hospital application	N/A
Base hospital designation	N/A
Trauma center application	15,000.00
Trauma center designation	75,000.00
Pediatric facility approval	N/A
Pediatric facility designation	N/A
Other critical care center application Type: ____________________	
Other critical care center designation Type: ____________________	
Ambulance service license	N/A
Ambulance vehicle permits	N/A
Other: ____________________	__________
Other: ____________________	__________
Other: ____________________	__________

TABLE 2: SYSTEM ORGANIZATION AND MANAGEMENT (cont.)

CATEGORY	ACTUAL TITLE	FTE POSITIONS (EMS ONLY)	TOP SALARY BY HOURLY EQUIVALENT	BENEFITS (%of Salary)	COMMENTS
EMS Admin./Coord./Director	EMS Administrator	1.0	65.22 / hr.	35%	
Asst. Admin./Admin.Asst./Admin. Mgr.	Senior Program Admin.	1.0	52.52 / hr.	37%	Deputy EMS Administrator
ALS Coord./Field Coord./Trng Coordinator					
Program Coordinator/Field Liaison (Non-clinical)	Supervising PHN	1.0	54.24 / hr.	38%	EPO Manager
Trauma Coordinator	Senior Program Admin.	1.0	52.52 / hr.	39%	Trauma System Manager
Medical Director	EMS Medical Director	0.5	94.41 / hr.	0	Independent Contractor
Other MD/Medical Consult/Training Medical Director	Asst. EMS Medical Director	0.1	94.41 / hr.	0	Independent Contractor
Disaster Medical Planner	Community Services Coordinator	1.0	34.02 / hr.	43%	EPO Planning Coordinator
Dispatch Supervisor					
Medical Planner					
Data Evaluator/Analyst					
QA/QI Coordinator	Registered Nurse II	1.0	46.58 / hr.	36%	Specialty Systems Coordinator
Public Info. & Education Coordinator					
Executive Secretary	Admin. Assistant II	1.0	33.20 / hr.	47%	EPO Admin. Asst.
Other Clerical	Administrative Assistant I	1.0	33.20 / hr.	47%	

Other Clerical	Community Health Worker	1.0	24.89 / hr.	46%	EMS Certification Specialist
Other	Program Administrator III	1.0	46.73 / hr.	40%	EPO Epidemiologist
Other	Community Services Coordinator	1.0	34.02 / hr.	43%	EPO Logistics Coordinator
Other	Program Administrator I	1.0	39.85 / hr.	40%	EMS Specialist
Other	Program Administrator I	1.0	39.85 / hr.	40%	EMS Specialist and Safety Officer
Other	Community Services Coordinator	1.0	34.02 / hr.	43%	Healthcare Coalition Coordinator

Include an organizational chart of the local EMS agency and a county organization chart(s) indicating how the LEMSA fits within the county/multi-county structure.

Ventura County Emergency Medical Services Agency
Organizational Chart
2018

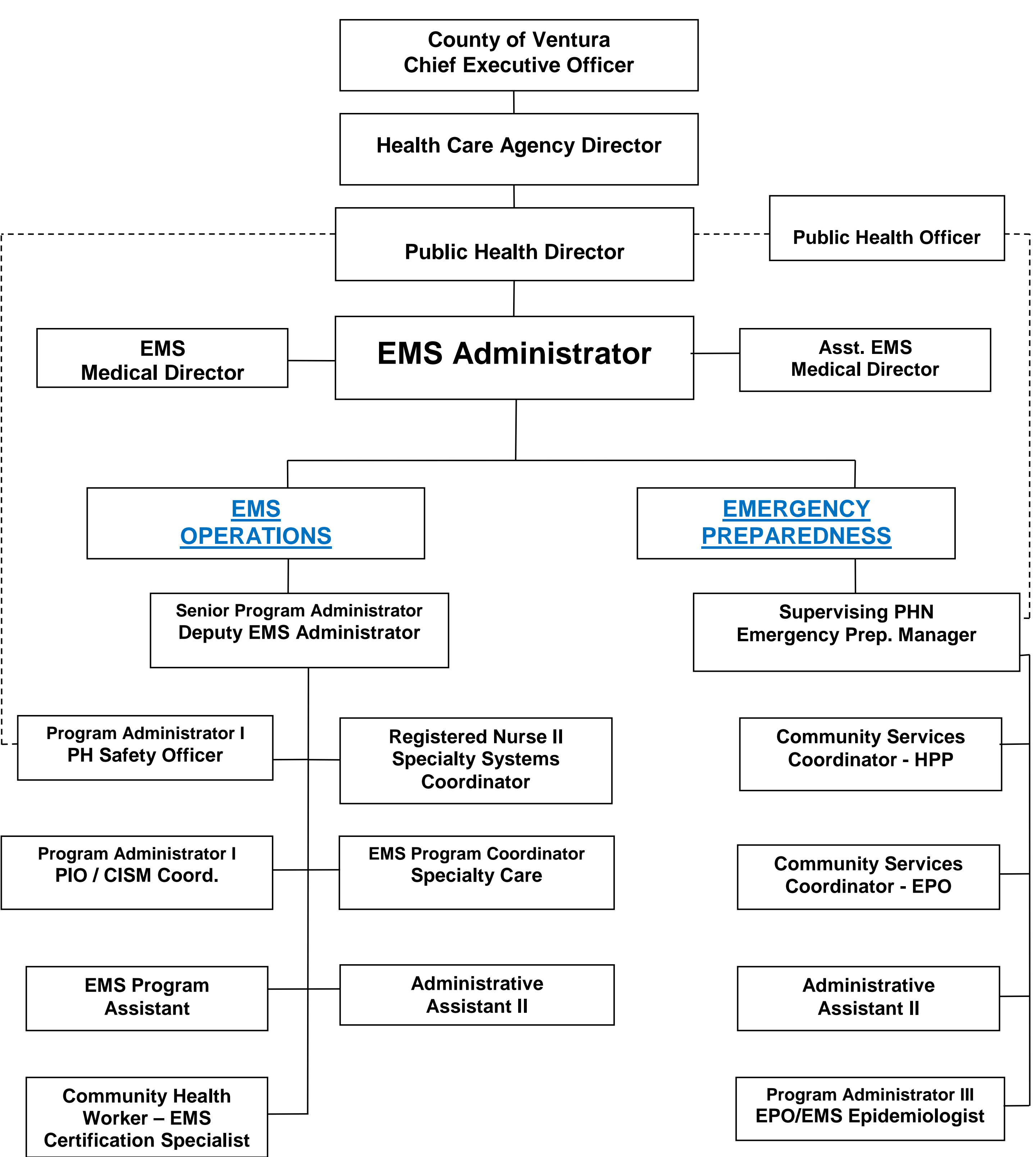

TABLE 3: STAFFING/TRAINING

Reporting Year: __2018______

NOTE: Table 3 is to be reported by agency.

	EMT - Is	EMT - IIs	EMT - Ps	MICN
Total Certified	950	0		83
Number newly certified this year	451	0		11
Number recertified this year	499	0		72
Total number of accredited personnel on July 1 of the reporting year	2210	0	252	141
Number of certification reviews resulting in:				
a) formal investigations	8	0		0
b) probation	7	0	0	0
c) suspensions	1	0	0	0
d) revocations	2	0		0
e) denials	0	0		0
f) denials of renewal	0	0		0
g) no action taken	1	0	0	0

1. Early defibrillation:
   - a) Number of EMT-I (defib) authorized to use AEDs __UNKNOWN__
   - b) Number of public safety (defib) certified (non-EMT-I) __UNKNOWN__

2. Do you have an EMR training program ☐ yes **X** no

TABLE 4: COMMUNICATIONS

Note: Table 4 is to be answered for each county.

County: Ventura

Reporting Year: 2018

1. Number of primary Public Service Answering Points (PSAP) — 9
2. Number of secondary PSAPs — 1
3. Number of dispatch centers directly dispatching ambulances — 1
4. Number of EMS dispatch agencies utilizing EMD guidelines — 1
5. Number of designated dispatch centers for EMS Aircraft — 1
6. Who is your primary dispatch agency for day-to-day emergencies?
   Ventura County Fire Protection District
7. Who is your primary dispatch agency for a disaster?
   Ventura County Sheriff's Dept. and Ventura County Fire Protection District
8. Do you have an operational area disaster communication system? **X** Yes ☐ No
   a. Radio primary frequency 154.055

   b. Other methods ________

   c. Can all medical response units communicate on the same disaster communications system? **X** Yes ☐ No

   d. Do you participate in the Operational Area Satellite Information System (OASIS)? **X** Yes ☐ No

   e. Do you have a plan to utilize the Radio Amateur Civil Emergency Services (RACES) as a back-up communication system? **X** Yes ☐ No

      1) Within the operational area? **X** Yes ☐ No
      2) Between operation area and the region and/or state? **X** Yes ☐ No

TABLE 5: RESPONSE/TRANSPORTATION

Reporting Year: ________2018______________

Note: Table 5 is to be reported by agency.

Early Defibrillation Providers

1. Number of EMT-Defibrillation providers ___8____

SYSTEM STANDARD RESPONSE TIMES (90TH PERCENTILE)

Enter the response times in the appropriate boxes:

	METRO/URBAN	SUBURBAN/ RURAL	WILDERNESS	SYSTEMWIDE
BLS and CPR capable first responder	Not Defined	Not Defined	Not Defined	Not Defined
Early defibrillation responder	Not Defined	Not Defined	Not Defined	Not Defined
Advanced life support responder	7 min, 30 sec	Not Defined	Not Defined	Not Defined
Transport Ambulance	8 min, 0 sec	20 min, 0 sec	30 min, 0 sec or ASAP	Not Defined

TABLE 6: FACILITIES/CRITICAL CARE

Reporting Year: 2018

NOTE: Table 6 is to be reported by agency.

Trauma

Trauma patients:

1. Number of patients meeting trauma triage criteria	3385
2. Number of major trauma victims transported directly to a trauma center by ambulance	476
3. Number of major trauma patients transferred to a trauma center	34
4. Number of patients meeting triage criteria who were not treated at a trauma center	1717

Emergency Departments

Total number of emergency departments	8
1. Number of referral emergency services	0
2. Number of standby emergency services	1
3. Number of basic emergency services	7
4. Number of comprehensive emergency services	0

Receiving Hospitals

1. Number of receiving hospitals with written agreements	0
2. Number of base hospitals with written agreements	2

TABLE 7: DISASTER MEDICAL

Reporting Year: 2018

County: Ventura

NOTE: Table 7 is to be answered for each county.

SYSTEM RESOURCES

1. Casualty Collections Points (CCP)
   a. Where are your CCPs located? Hospital Parking Lots
   b. How are they staffed? Hospital personnel, PH nurses, and Medical Reserve Corps
   c. Do you have a supply system for supporting them for 72 hours? **X** Yes ☐ No

2. CISD
   Do you have a CISD provider with 24 hour capability? **X** Yes ☐ No

3. Medical Response Team
   a. Do you have any team medical response capability? **X** Yes ☐ No
   b. For each team, are they incorporated into your local response plan? **X** Yes ☐ No
   c. Are they available for statewide response? ☐ Yes **X** No
   d. Are they part of a formal out-of-state response system? ☐ Yes **X** No

4. Hazardous Materials
   a. Do you have any HazMat trained medical response teams? ☐ Yes **X** No
   b. At what HazMat level are they trained? ______________________
   c. Do you have the ability to do decontamination in an emergency room? **X** Yes ☐ No
   d. Do you have the ability to do decontamination in the field? **X** Yes ☐ No

OPERATIONS

1. Are you using a Standardized Emergency Management System (SEMS) that incorporates a form of Incident Command System (ICS) structure? **X** Yes ☐ No

2. What is the maximum number of local jurisdiction EOCs you will need to interact with in a disaster? 12

3. Have you tested your MCI Plan this year in a:
   a. real event? **X** Yes ☐ No
   b. exercise? **X** Yes ☐ No

TABLE 7: DISASTER MEDICAL (cont.)

4. List all counties with which you have a written medical mutual aid agreement.
   __Medical Mutual Aid with all Region 1 and Region 6 counties________________

5. Do you have formal agreements with hospitals in your operational area to participate in disaster planning and response? **X** Yes ☐ No

6. Do you have a formal agreements with community clinics in your operational areas to participate in disaster planning and response? **X** Yes ☐ No

7. Are you part of a multi-county EMS system for disaster response? ☐ Yes **X** No

8. Are you a separate department or agency? ☐ Yes **X** No

9. If not, to whom do you report? Health Care Agency, Public Health Department

8. If your agency is not in the Health Department, do you have a plan to coordinate public health and environmental health issues with the Health Department? ☐ Yes ☐ No

Table 8: Resource Directory

Response/Transportation/Providers

Note: *Table 8 is to be completed for each provider by county.* Make copies as needed.

County: Ventura **Provider:** American Medical Response **Response Zone:** 2,3,4,5,7

Address: 616 Fitch Ave
Moorpark, CA 93021

Phone Number: 805-517-2000

Number of Ambulance Vehicles in Fleet: 30

Average Number of Ambulances on Duty At 12:00 p.m. (noon) on Any Given Day: 21

Written Contract:	**Medical Director:**	**System Available 24 Hours:**	**Level of Service:**	
X Yes ❒ No	X Yes ❒ No	X Yes ❒ No	X Transport ❑ Non-Transport X ALS ❑ BLS X 9-1-1 X 7-Digit X CCT X IFT X Ground ❑ Air ❑ Water	
Ownership:	**If Public:**	**If Public:**	**If Air:**	**Air Classification:**
❒ Public X Private	❒ Fire ❒ Law ❒ Other Explain: ______	❒ City ❒ County ❒ State ❒ Fire District ❒ Federal	❒ Rotary ❒ Fixed Wing	❒ Auxiliary Rescue ❒ Air Ambulance ❒ ALS Rescue ❒ BLS Rescue

Transporting Agencies

40958 Total number of responses
38910 Number of emergency responses
2048 Number of non-emergency responses

31561 Total number of transports
29536 Number of emergency transports
2025 Number of non-emergency transports

Air Ambulance Services

______ Total number of responses
______ Number of emergency responses
______ Number of non-emergency responses

______ Total number of transports
______ Number of emergency transports
______ Number of non-emergency transports

Table 8: Resource Directory

Response/Transportation/Providers

Note: *Table 8 is to be completed for each provider by county.* Make copies as needed.

County: Ventura **Provider:** Gold Coast Ambulance **Response Zone:** 6

Address: 200 Bernoulli Circle
Oxnard, CA 93030

Phone Number: 805-485-3040

Number of Ambulance Vehicles in Fleet: 19

Average Number of Ambulances on Duty At 12:00 p.m. (noon) on Any Given Day: 13

Written Contract:	**Medical Director:**	**System Available 24 Hours:**	**Level of Service:**	
X Yes ❒ No	X Yes ❒ No	X Yes ❒ No	X Transport ❑ Non-Transport X ALS ❑ BLS X 9-1-1 X 7-Digit X CCT X IFT X Ground ❑ Air ❑ Water	
Ownership:	**If Public:**	**If Public:**	**If Air:**	**Air Classification:**
❒ Public X Private	❒ Fire ❒ Law ❒ Other Explain: ______	❒ City ❒ County ❒ State ❒ Fire District ❒ Federal	❒ Rotary ❒ Fixed Wing	❒ Auxiliary Rescue ❒ Air Ambulance ❒ ALS Rescue ❒ BLS Rescue

Transporting Agencies

24164 Total number of responses
16661 Number of emergency responses
7503 Number of non-emergency responses

19901 Total number of transports
12563 Number of emergency transports
7338 Number of non-emergency transports

Air Ambulance Services

______ Total number of responses
______ Number of emergency responses
______ Number of non-emergency responses

______ Total number of transports
______ Number of emergency transports
______ Number of non-emergency transports

Table 8: Resource Directory

Response/Transportation/Providers

Note: *Table 8 is to be completed for each provider by county.* Make copies as needed.

County: Ventura **Provider:** LifeLine Medical Transport **Response Zone:** 1

Address: 632 E. Thompson Ave.
Ventura, CA 93001

Phone Number: 805-653-9111

Number of Ambulance Vehicles in Fleet: 9

Average Number of Ambulances on Duty At 12:00 p.m. (noon) on Any Given Day: 6

Written Contract:	**Medical Director:**	**System Available 24 Hours:**	**Level of Service:**	
X Yes ❒ No	X Yes ❒ No	X Yes ❒ No	X Transport ❑ Non-Transport X ALS ❑ BLS X 9-1-1 X 7-Digit X CCT X IFT X Ground ❑ Air ❑ Water	
Ownership:	**If Public:**	**If Public:**	**If Air:**	**Air Classification:**
❒ Public X Private	❒ Fire ❒ Law ❒ Other Explain: ______	❒ City ❒ County ❒ State ❒ Fire District ❒ Federal	❒ Rotary ❒ Fixed Wing	❒ Auxiliary Rescue ❒ Air Ambulance ❒ ALS Rescue ❒ BLS Rescue

Transporting Agencies

11983	Total number of responses	11028	Total number of transports
1978	Number of emergency responses	1023	Number of emergency transports
9050	Number of non-emergency responses	9050	Number of non-emergency transports

Air Ambulance Services

	Total number of responses		Total number of transports
	Number of emergency responses		Number of emergency transports
	Number of non-emergency responses		Number of non-emergency transports

Table 8: Resource Directory

Response/Transportation/Providers

Note: *Table 8 is to be completed for each provider by county.* Make copies as needed.

County: Ventura **Provider:** Ventura City Fire Dept. **Response Zone:** ______

Address: 1425 Dowell Dr.
Ventura, CA 93003

Phone Number: 805-339-4300

Number of Ambulance Vehicles in Fleet: 0

Average Number of Ambulances on Duty At 12:00 p.m. (noon) on Any Given Day: 0

Written Contract:	**Medical Director:**	**System Available 24 Hours:**	**Level of Service:**	
X Yes ❒ No	X Yes ❒ No	X Yes ❒ No	❑ Transport X Non-Transport X ALS ❑ BLS X 9-1-1 ❑ 7-Digit ❑ CCT ❑ IFT X Ground ❑ Air ❑ Water	
Ownership:	**If Public:**	**If Public:**	**If Air:**	**Air Classification:**
X Public ❒ Private	X Fire ❒ Law ❒ Other Explain: ______	X City ❒ County ❒ State ❒ Fire District ❒ Federal	❒ Rotary ❒ Fixed Wing	❒ Auxiliary Rescue ❒ Air Ambulance ❒ ALS Rescue ❒ BLS Rescue

Transporting Agencies

THIS IS NOT A TRANSPORT PROVIDER

______ Total number of responses
______ Number of emergency responses
______ Number of non-emergency responses

______ Total number of transports
______ Number of emergency transports
______ Number of non-emergency transports

Air Ambulance Services

______ Total number of responses
______ Number of emergency responses
______ Number of non-emergency responses

______ Total number of transports
______ Number of emergency transports
______ Number of non-emergency transports

Table 8: Resource Directory

Response/Transportation/Providers

Note: *Table 8 is to be completed for each provider by county.* Make copies as needed.

County: Ventura **Provider:** Oxnard Fire Dept. **Response Zone:** ______

Address: 360 W. Second St.
Oxnard, CA 93030

Phone Number: 805-385-7722

Number of Ambulance Vehicles in Fleet: 0

Average Number of Ambulances on Duty At 12:00 p.m. (noon) on Any Given Day: 0

Written Contract:	Medical Director:	System Available 24 Hours:	Level of Service:	
❒ Yes X No	❒ Yes X No	X Yes ❒ No	❑ Transport X Non-Transport X ALS X BLS X 9-1-1 ❑ 7-Digit ❑ CCT ❑ IFT X Ground ❑ Air ❑ Water	
Ownership:	**If Public:**	**If Public:**	**If Air:**	**Air Classification:**
X Public ❒ Private	X Fire ❒ Law ❒ Other Explain: ______	X City ❒ County ❒ State ❒ Fire District ❒ Federal	❒ Rotary ❒ Fixed Wing	❒ Auxiliary Rescue ❒ Air Ambulance ❒ ALS Rescue ❒ BLS Rescue

Transporting Agencies

THIS IS NOT A TRANSPORT PROVIDER

______ Total number of responses
______ Number of emergency responses
______ Number of non-emergency responses

______ Total number of transports
______ Number of emergency transports
______ Number of non-emergency transports

Air Ambulance Services

______ Total number of responses
______ Number of emergency responses
______ Number of non-emergency responses

______ Total number of transports
______ Number of emergency transports
______ Number of non-emergency transports

Table 8: Resource Directory

Response/Transportation/Providers

Note: *Table 8 is to be completed for each provider by county.* Make copies as needed.

County: Ventura **Provider:** Fillmore Fire Dept. **Response Zone:** ________

Address: PO Box 487
Fillmore, CA 93015

Phone Number: 805-524-0586

Number of Ambulance Vehicles in Fleet: 0

Average Number of Ambulances on Duty At 12:00 p.m. (noon) on Any Given Day: 0

Written Contract:	**Medical Director:**	**System Available 24 Hours:**	**Level of Service:**	
X Yes ❒ No	X Yes ❒ No	X Yes ❒ No	❑ Transport X Non-Transport X ALS ❑ BLS X 9-1-1 ❑ 7-Digit ❑ CCT ❑ IFT X Ground ❑ Air ❑ Water	
Ownership:	**If Public:**	**If Public:**	**If Air:**	**Air Classification:**
X Public ❒ Private	X Fire ❒ Law ❒ Other Explain: ________	X City ❒ State ❒ Federal ❒ County ❒ Fire District	❒ Rotary ❒ Fixed Wing	❒ Auxiliary Rescue ❒ Air Ambulance ❒ ALS Rescue ❒ BLS Rescue

Transporting Agencies

THIS IS NOT A TRANSPORT PROVIDER

________ Total number of responses
________ Number of emergency responses
________ Number of non-emergency responses

________ Total number of transports
________ Number of emergency transports
________ Number of non-emergency transports

Air Ambulance Services

________ Total number of responses
________ Number of emergency responses
________ Number of non-emergency responses

________ Total number of transports
________ Number of emergency transports
________ Number of non-emergency transports

Table 8: Resource Directory

Response/Transportation/Providers

Note: *Table 8 is to be completed for each provider by county.* Make copies as needed.

County: Ventura **Provider:** Ventura County Fire Dept. **Response Zone:** ______

Address: 165 Durley Ave.
Camarillo, CA 93010

Phone Number: 805-389-9710

Number of Ambulance Vehicles in Fleet: 0

Average Number of Ambulances on Duty At 12:00 p.m. (noon) on Any Given Day: 0

Written Contract:	**Medical Director:**	**System Available 24 Hours:**	**Level of Service:**	
X Yes ❐ No	X Yes ❐ No	X Yes ❐ No	❑ Transport X Non-Transport X ALS X BLS X 9-1-1 ❑ 7-Digit ❑ CCT ❑ IFT X Ground ❑ Air ❑ Water	
Ownership:	**If Public:**	**If Public:**	**If Air:**	**Air Classification:**
X Public ❐ Private	X Fire ❐ Law ❐ Other Explain: ______	❐ City ❐ County ❐ State X Fire District ❐ Federal	❐ Rotary ❐ Fixed Wing	❐ Auxiliary Rescue ❐ Air Ambulance ❐ ALS Rescue ❐ BLS Rescue

Transporting Agencies

THIS IS NOT A TRANSPORT PROVIDER

______ Total number of responses
______ Number of emergency responses
______ Number of non-emergency responses

______ Total number of transports
______ Number of emergency transports
______ Number of non-emergency transports

Air Ambulance Services

______ Total number of responses
______ Number of emergency responses
______ Number of non-emergency responses

______ Total number of transports
______ Number of emergency transports
______ Number of non-emergency transports

Table 8: Resource Directory

Response/Transportation/Providers

Note: *Table 8 is to be completed for each provider by county.* Make copies as needed.

County: Ventura **Provider:** Ventura County Sheriff's Dept. **Response Zone:** ____________

Address: 375A Durley Ave.
Camarillo, CA 93010

Phone Number: 805-388-4212

Number of Ambulance Vehicles in Fleet: 4

Average Number of Ambulances on Duty At 12:00 p.m. (noon) on Any Given Day: 2

Written Contract:	**Medical Director:**	**System Available 24 Hours:**	**Level of Service:**	
X Yes ❐ No	X Yes ❐ No	X Yes ❐ No	X Transport ❑ Non-Transport X ALS X BLS X 9-1-1 ❑ 7-Digit ❑ CCT ❑IFT ❑ Ground X Air ❑ Water	
Ownership:	**If Public:**	**If Public:**	**If Air:**	**Air Classification:**
X Public ❐ Private	❐ Fire X Law ❐ Other Explain: ____________	❐ City ❐ State ❐ Federal X County ❐ Fire District	X Rotary ❐ Fixed Wing	❐ Auxiliary Rescue ❐ Air Ambulance X ALS Rescue X BLS Rescue

Transporting Agencies

________	Total number of responses	________	Total number of transports
________	Number of emergency responses	________	Number of emergency transports
________	Number of non-emergency responses	________	Number of non-emergency transports

Air Ambulance Services

255	Total number of responses	49	Total number of transports
255	Number of emergency responses	49	Number of emergency transports
0	Number of non-emergency responses	0	Number of non-emergency transports

Response numbers are for rescue aircraft only

TABLE 9: FACILITIES

County: Ventura

Note: *Complete information for each facility by county.* Make copies as needed.

Facility: Community Memorial Hospital
Telephone Number: 805-652-5011
Address: Loma Vista and Brent
Ventura, CA 93003

Written Contract:	**Service:**		**Base Hospital:**	**Burn Center:**
❒ Yes X No	❒ Referral Emergency X Basic Emergency	❒ Standby Emergency ❒ Comprehensive Emergency	❒ Yes X No	❒ Yes X No

		Trauma Center:	**If Trauma Center what level:**	
Pediatric Critical Care Center[1] **EDAP**[2] **PICU**[3]	❒ Yes X No ❒ Yes X No ❒ Yes X No	❒ Yes X No	❒ Level I ❒ Level III	❒ Level II ❒ Level IV

STEMI Center:	**Stroke Center:**
X Yes ❒ No	X Yes ❒ No

[1] Meets EMSA *Pediatric Critical Care Center (PCCC) Standards*
[2] Meets EMSA Emergency Departments Approved for Pediatrics (EDAP) Standards
[3] Meets California Children Services (CCS) Pediatric Intensive Care Unit (PICU) Standards

TABLE 9: FACILITIES

County: Ventura

Note: *Complete information for each facility by county.* Make copies as needed.

Facility: Los Robles Regional Medical Center
Telephone Number: 805-497-2727
Address: 215 W. Janss Road
Thousand Oaks, CA 91360

Written Contract:	**Service:**		**Base Hospital:**	**Burn Center:**
X Yes ❒ No	❒ Referral Emergency X Basic Emergency	❒ Standby Emergency ❒ Comprehensive Emergency	X Yes ❒ No	❒ Yes X No

		Trauma Center:	**If Trauma Center what level:**	
Pediatric Critical Care Center[4]	❒ Yes X No			
EDAP[5]	X Yes ❒ No			
PICU[6]	❒ Yes X No	X Yes ❒ No	❒ Level I	X Level II
			❒ Level III	❒ Level IV

STEMI Center:	**Stroke Center:**
X Yes ❒ No	X Yes ❒ No

[4] Meets EMSA *Pediatric Critical Care Center (PCCC) Standards*
[5] Meets EMSA Emergency Departments Approved for Pediatrics (EDAP) Standards
[6] Meets California Children Services (CCS) Pediatric Intensive Care Unit (PICU) Standards

TABLE 9: FACILITIES

County: Ventura

Note: *Complete information for each facility by county.* Make copies as needed.

Facility: Ojai Valley Community Hospital
Telephone Number: 805-646-1401
Address: 1406 Maricopa Highway
Ojai, CA 93023

Written Contract:	**Service:**	**Base Hospital:**	**Burn Center:**
❐ Yes **X** No	❐ Referral Emergency **X** Standby Emergency ❐ Basic Emergency ❐ Comprehensive Emergency	❐ Yes **X** No	❐ Yes **X** No

		Trauma Center:	**If Trauma Center what level:**
Pediatric Critical Care Center[7]	❐ Yes **X** No	❐ Yes **X** No	❐ Level I ❐ Level II
EDAP[8]	❐ Yes **X** No		❐ Level III ❐ Level IV
PICU[9]	❐ Yes **X** No		

STEMI Center:	**Stroke Center:**
❐ Yes **X** No	❐ Yes **X** No

---

[7] Meets EMSA *Pediatric Critical Care Center (PCCC) Standards*
[8] Meets EMSA Emergency Departments Approved for Pediatrics (EDAP) Standards
[9] Meets California Children Services (CCS) Pediatric Intensive Care Unit (PICU) Standards

TABLE 9: FACILITIES

County: Ventura

Note: *Complete information for each facility by county.* Make copies as needed.

Facility: St. John's Pleasant Valley Hospital
Address: 2309 Antonio Ave.
Camarillo, CA 93010

Telephone Number: 805-389-5800

Written Contract:	**Service:**		**Base Hospital:**	**Burn Center:**
❒ Yes **X** No	❒ Referral Emergency **X** Basic Emergency	❒ Standby Emergency ❒ Comprehensive Emergency	❒ Yes **X** No	❒ Yes **X** No

		Trauma Center:	**If Trauma Center what level:**	
Pediatric Critical Care Center[10]	❒ Yes **X** No		❒ Level I	❒ Level II
EDAP[11]	❒ Yes **X** No		❒ Level III	❒ Level IV
PICU[12]	❒ Yes **X** No	❒ Yes **X** No		

STEMI Center:	**Stroke Center:**
❒ Yes **X** No	**X** Yes ❒ No

[10] Meets EMSA *Pediatric Critical Care Center (PCCC) Standards*
[11] Meets EMSA Emergency Departments Approved for Pediatrics (EDAP) Standards
[12] Meets California Children Services (CCS) Pediatric Intensive Care Unit (PICU) Standards

TABLE 9: FACILITIES

County: Ventura

Note: *Complete information for each facility by county.* Make copies as needed.

Facility: St. John's Regional Medical Center
Telephone Number: 805-988-2500
Address: 1600 N. Rose Ave
Oxnard, CA 93033

Written Contract:	Service:		Base Hospital:	Burn Center:
❒ Yes X No	❒ Referral Emergency X Basic Emergency	❒ Standby Emergency ❒ Comprehensive Emergency	X Yes ❒ No	❒ Yes X No

		Trauma Center:	If Trauma Center what level:	
Pediatric Critical Care Center[13] **EDAP**[14] **PICU**[15]	❒ Yes X No ❒ Yes X No ❒ Yes X No	❒ Yes X No	❒ Level I ❒ Level III	❒ Level II ❒ Level IV

STEMI Center:	Stroke Center:
X Yes ❒ No	X Yes ❒ No

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[13] Meets EMSA *Pediatric Critical Care Center (PCCC) Standards*
[14] Meets EMSA Emergency Departments Approved for Pediatrics (EDAP) Standards
[15] Meets California Children Services (CCS) Pediatric Intensive Care Unit (PICU) Standards

TABLE 9: FACILITIES

County: Ventura

Note: *Complete information for each facility by county.* Make copies as needed.

Facility: Simi Valley Hospital
Address: 2975 N. Sycamore Dr.
Simi Valley, CA 93065

Telephone Number: 805-955-6000

Written Contract:	**Service:**		**Base Hospital:**	**Burn Center:**
❒ Yes X No	❒ Referral Emergency X Basic Emergency	❒ Standby Emergency ❒ Comprehensive Emergency	X Yes ❒ No	❒ Yes X No

		Trauma Center:	**If Trauma Center what level:**	
Pediatric Critical Care Center[16]	❒ Yes X No	❒ Yes X No	❒ Level I	❒ Level II
EDAP[17]	❒ Yes X No		❒ Level III	❒ Level IV
PICU[18]	❒ Yes X No			

STEMI Center:	**Stroke Center:**
X Yes ❒ No	X Yes ❒ No

[16] Meets EMSA *Pediatric Critical Care Center (PCCC) Standards*
[17] Meets EMSA Emergency Departments Approved for Pediatrics (EDAP) Standards
[18] Meets California Children Services (CCS) Pediatric Intensive Care Unit (PICU) Standards

TABLE 9: FACILITIES

County: Ventura

Note: *Complete information for each facility by county.* Make copies as needed.

Facility: Ventura County Medical Center
Telephone Number: 805-652-6000
Address: 3291 Loma Vista Road
Ventura, CA 93003

Written Contract:	**Service:**	**Base Hospital:**	**Burn Center:**
X Yes ❐ No	❐ Referral Emergency ❐ Standby Emergency X Basic Emergency ❐ Comprehensive Emergency	X Yes ❐ No	❐ Yes X No

		Trauma Center:	**If Trauma Center what level:**
Pediatric Critical Care Center[19] **EDAP**[20] **PICU**[21]	❐ Yes X No ❐ Yes X No X Yes ❐ No	X Yes ❐ No	❐ Level I X Level II ❐ Level III ❐ Level IV

STEMI Center:	**Stroke Center:**
❐ Yes X No	X Yes ❐ No

[19] Meets EMSA *Pediatric Critical Care Center (PCCC) Standards*
[20] Meets EMSA Emergency Departments Approved for Pediatrics (EDAP) Standards
[21] Meets California Children Services (CCS) Pediatric Intensive Care Unit (PICU) Standards

TABLE 9: FACILITIES

County: Ventura

Note: *Complete information for each facility by county.* Make copies as needed.

Facility: VCMC Santa Paula Hospital

Telephone Number: 805-933-8600

Address: 525 N. 10th Street
Santa Paula, CA 93060

Written Contract:	**Service:**		**Base Hospital:**	**Burn Center:**
❐ Yes X No	❐ Referral Emergency	❐ Standby Emergency	❐ Yes X No	❐ Yes X No
	X Basic Emergency	❐ Comprehensive Emergency		

		Trauma Center:	**If Trauma Center what level:**	
Pediatric Critical Care Center[22]	❐ Yes X No			
EDAP[23]	❐ Yes X No			
PICU[24]	❐ Yes X No	❐ Yes X No	❐ Level I	❐ Level II
			❐ Level III	❐ Level IV

STEMI Center:	**Stroke Center:**
❐ Yes X No	❐ Yes X No

[22] Meets EMSA *Pediatric Critical Care Center (PCCC) Standards*
[23] Meets EMSA Emergency Departments Approved for Pediatrics (EDAP) Standards
[24] Meets California Children Services (CCS) Pediatric Intensive Care Unit (PICU) Standards

TABLE 10: APPROVED TRAINING PROGRAMS

County: Ventura **Reporting Year:** 2018

NOTE: Table 10 is to be completed by county. Make copies to add pages as needed.

Training Institution: Conejo Valley Adult School
Telephone Number: 805-497-2761
Address: 1025 Old Farm Road
Thousand Oaks, CA 91360

Student Eligibility*: General Public

**Program Level: EMT

Cost of Program:
Basic: 975.00
Refresher: 299.00

Number of students completing training per year:
- Initial training: 45
- Refresher: 0
- Continuing Education: 0
- Expiration Date: 02/28/23

Number of courses:
- Initial training: 2
- Refresher: 0
- Continuing Education: 0

Training Institution: Moorpark College
Telephone Number: 805-378-1433
Address: 7075 Campus Rd.
Moorpark, CA 93021

Student Eligibility*: General Public

**Program Level: EMT

Cost of Program:
Basic: 1156.00
Refresher:

Number of students completing training per year:
- Initial training: 85
- Refresher: 0
- Continuing Education: 0
- Expiration Date: 5/31/20

Number of courses:
- Initial training: 2
- Refresher:
- Continuing Education: 0

*Open to general public or restricted to certain personnel only.
** Indicate whether EMT-I, AEMT, EMT-P, MICN, or EMR; if there is a training program that offers more than one level complete all information for each level.

TABLE 10: APPROVED TRAINING PROGRAMS

County: Ventura **Reporting Year:** 2018

NOTE: Table 10 is to be completed by county. Make copies to add pages as needed.

Training Institution: St. John's Regional Medical Center
Telephone Number: 805-988-2500
Address: 1600 N. Rose Ave.
Oxnard, CA 93033

Student Eligibility*: Private
**Program Level: MICN

Cost of Program:
Basic: 300.00
Refresher:

Number of students completing training per year:
- Initial training: 11
- Refresher: 0
- Continuing Education: 0
- Expiration Date: 11/30/19

Number of courses:
- Initial training: 1
- Refresher: 0
- Continuing Education: 0

Training Institution: Oxnard College
Telephone Number: 805-377-2250
Address: 4000 South Rose Avenue
Oxnard, CA 93033

Student Eligibility*: General
**Program Level: EMT

Cost of Program:
Basic: 1250.00
Refresher: 250.00

Number of students completing training per year:
- Initial training: 149
- Refresher: 20
- Continuing Education: 0
- Expiration Date: 1/31/20

Number of courses:
- Initial training: 8
- Refresher: 1
- Continuing Education: 0

*Open to general public or restricted to certain personnel only.
** Indicate whether EMT-I, AEMT, EMT-P, MICN, or EMR; if there is a training program that offers more than one level complete all information for each level.

TABLE 10: APPROVED TRAINING PROGRAMS

County: Ventura **Reporting Year:** 2018

NOTE: Table 10 is to be completed by county. Make copies to add pages as needed.

Training Institution: Oxnard Fire Department
Telephone Number: 805-385-8361
Address: 360 West Second Street
Oxnard, CA 93033

Student Eligibility*: Fire Personnel
**Program Level: EMT

Cost of Program:
Basic: 0
Refresher: 0

Number of students completing training per year:
- Initial training: 0
- Refresher: 0
- Continuing Education: 0
- Expiration Date: 1/31/20

Number of courses:
- Initial training: 0
- Refresher: 0
- Continuing Education: 0

Training Institution: Simi Institute for Careers and Education
Telephone Number: 805-579-6200
Address: 1880 Blackstock Avenue
Simi Valley, CA 93065

Student Eligibility*: General
**Program Level: EMT

Cost of Program:
Basic: 1175.00
Refresher: 325.00

Number of students completing training per year:
- Initial training: 51
- Refresher: 28
- Continuing Education: 0
- Expiration Date: 11/30/19

Number of courses:
- Initial training: 4
- Refresher: 2
- Continuing Education: 0

*Open to general public or restricted to certain personnel only.
** Indicate whether EMT-I, AEMT, EMT-P, MICN, or EMR; if there is a training program that offers more than one level complete all information for each level.

TABLE 10: APPROVED TRAINING PROGRAMS

County: Ventura **Reporting Year:** 2018

NOTE: Table 10 is to be completed by county. Make copies to add pages as needed.

Training Institution: Ventura College – Paramedic Program
Telephone Number: 805-654-6400 ext 1354
Address: 4667 Telegraph Road
Ventura, CA 93003

Student Eligibility*: General

**Program Level: Paramedic

Cost of Program:
Basic: 3741.00
Refresher:

Number of students completing training per year:
- Initial training: 16
- Refresher: 0
- Continuing Education: 0
- Expiration Date: 4/30/20

Number of courses:
- Initial training: 1
- Refresher: 0
- Continuing Education: 0

Training Institution: Ventura College
Telephone Number: 805-654-6400 ext 1354
Address: 4667 Telegraph Road
Ventura, CA 93003

Student Eligibility*: General

**Program Level: EMT

Cost of Program:
Basic: 986.00
Refresher:

Number of students completing training per year:
- Initial training: 133
- Refresher: 0
- Continuing Education: 0
- Expiration Date: 11/30/19

Number of courses:
- Initial training: 4
- Refresher: 0
- Continuing Education: 0

*Open to general public or restricted to certain personnel only.
** Indicate whether EMT-I, AEMT, EMT-P, MICN, or EMR; if there is a training program that offers more than one level complete all information for each level.

TABLE 11: DISPATCH AGENCY

County: Ventura **Reporting Year:** 2018

NOTE: Make copies to add pages as needed. Complete information for each provider by county.

Name:	Ventura County Fire Protection District	Primary Contact:	Steve McClellen
Address:	165 Durley Ave. Camarillo, CA 93010		
Telephone Number:	805-389-9710		

Written Contract:	Medical Director:		Number of Personnel Providing Services:
☐ Yes X No	☐ Yes X No	X Day-to-Day ☐ Disaster	35 EMD Training ______ EMT-D ______ ALS ______ BLS ______ LALS ______ Other
Ownership: X Public ☐ Private		If Public: X Fire ☐ Law ☐ Other Explain: __________	If Public: ☐ City ☐ County ☐ State X Fire District ☐ Federal

EMS PLAN
AMBULANCE ZONE SUMMARY FORM

In order to evaluate the nature of each area or subarea, the following information should be compiled for each zone individually. Please include a separate form for each exclusive and/or nonexclusive ambulance zone.

Local EMS Agency or County Name: **Ventura County EMS**

Area or subarea (Zone) Name or Title: **ASA 1**

Name of Current Provider(s): **LifeLine Medical Transport**
Serving the Ojai Valley since 1935

Include company name(s) and length of operation (uninterrupted) in specified area or subarea.

Area or subarea (Zone) Geographic Description:
Combination of Metropolitan/Urban, Suburban/Rural and Wilderness areas including the City of Ojai.

Statement of Exclusivity, Exclusive or non-Exclusive (HS 1797.6):
Exclusive
Include intent of local EMS agency and Board action.

Type of Exclusivity, "Emergency Ambulance", "ALS", or "LALS" (HS 1797.85):
Emergency Ambulance for 911 calls only
Include type of exclusivity (Emergency Ambulance, ALS, LALS, or combination) and operational definition of exclusivity (i.e., 911 calls only, all emergencies, all calls requiring emergency ambulance service, etc.).

Method to achieve Exclusivity, if applicable (HS 1797.224):
Grandfathered

LifeLine Medical Transport is a subsidiary of Ojai Ambulance Inc. and has served ASA 1 since 1935. Paramedic service was added to the service area in 1986. Current owner, Steve Frank, purchased the company in 1994 from previous owner, Jerry Clauson. Ojai Ambulance changed it's name to LifeLine Medical Transport in 2001, however no change in scope or manner of service has occurred.

If grandfathered, pertinent facts concerning changes in scope and manner of service. Description of current provider including brief statement of uninterrupted service with no changes to scope and manner of service to zone. Include chronology of all services entering or leaving zone, name or ownership changes, service level changes, zone area modifications, or other changes to arrangements for service.

If competitively-determined, method of competition, intervals, and selection process. Attach copy/draft of last competitive process used to select provider or providers.

EMS PLAN
AMBULANCE ZONE SUMMARY FORM

In order to evaluate the nature of each area or subarea, the following information should be compiled for each zone individually. Please include a separate form for each exclusive and/or nonexclusive ambulance zone.

Local EMS Agency or County Name: **Ventura County EMS**

Area or subarea (Zone) Name or Title: **ASA 2**

Name of Current Provider(s): **American Medical Response**
Serving since 1962

Include company name(s) and length of operation (uninterrupted) in specified area or subarea.

Area or subarea (Zone) Geographic Description:
Combination of Metropolitan/Urban, Suburban/Rural and Wilderness areas including the Cities of Fillmore and Santa Paula..

Statement of Exclusivity, Exclusive or non-Exclusive (HS 1797.6):
Exclusive
Include intent of local EMS agency and Board action.

Type of Exclusivity, "Emergency Ambulance", "ALS", or "LALS" (HS 1797.85):
Emergency Ambulance for 911 calls only
Include type of exclusivity (Emergency Ambulance, ALS, LALS, or combination) and operational definition of exclusivity (i.e., 911 calls only, all emergencies, all calls requiring emergency ambulance service, etc.).

Method to achieve Exclusivity, if applicable (HS 1797.224):
Grandfathered

American Medical Response currently provides service to ASA 2. Paramedic service was added to the service area in 1992. There have been numerous ownership changes in the past 15 years due to ambulance industry consolidations; however no change in scope or manner of service has occurred.

Previous Owners:
Courtesy Ambulance 1962-1991
Pruner Health Services 1991-1993
Careline 1993-1996
Medtrans 1996-1999
American Medical Response 1999-present

If grandfathered, pertinent facts concerning changes in scope and manner of service. Description of current provider including brief statement of uninterrupted service with no changes to scope and manner of service to zone. Include chronology of all services entering or leaving zone, name or ownership changes, service level changes, zone area modifications, or other changes to arrangements for service.

If competitively-determined, method of competition, intervals, and selection process. Attach copy/draft of last competitive process used to select provider or providers.

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AMBULANCE ZONE SUMMARY FORM

In order to evaluate the nature of each area or subarea, the following information should be compiled for each zone individually. Please include a separate form for each exclusive and/or nonexclusive ambulance zone.

Local EMS Agency or County Name: **Ventura County EMS**

Area or subarea (Zone) Name or Title: **ASA 3**

Name of Current Provider(s): **American Medical Response**
Serving since 1962

Include company name(s) and length of operation (uninterrupted) in specified area or subarea.

Area or subarea (Zone) Geographic Description:
Combination of Metropolitan/Urban, Suburban/Rural and Wilderness areas including the City of Simi Valley.

Statement of Exclusivity, Exclusive or non-Exclusive (HS 1797.6):
Exclusive
Include intent of local EMS agency and Board action.

Type of Exclusivity, "Emergency Ambulance", "ALS", or "LALS" (HS 1797.85):
Emergency Ambulance for 911 calls only
Include type of exclusivity (Emergency Ambulance, ALS, LALS, or combination) and operational definition of exclusivity (i.e., 911 calls only, all emergencies, all calls requiring emergency ambulance service, etc.).

Method to achieve Exclusivity, if applicable (HS 1797.224):
Grandfathered

American Medical Response currently provides service to ASA 3. Paramedic service was added to the service area in 1983. There have been numerous ownership changes in the past 15 years due to ambulance industry consolidations; however no change in scope or manner of service has occurred.

Previous Owners:
Brady Ambulance 1962-1975
Pruner Health Services 1975-1993
Careline 1993-1996
Medtrans 1996-1999
American Medical Response 1999-present

If grandfathered, pertinent facts concerning changes in scope and manner of service. Description of current provider including brief statement of uninterrupted service with no changes to scope and manner of service to zone. Include chronology of all services entering or leaving zone, name or ownership changes, service level changes, zone area modifications, or other changes to arrangements for service.

If competitively-determined, method of competition, intervals, and selection process. Attach copy/draft of last competitive process used to select provider or providers.

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AMBULANCE ZONE SUMMARY FORM

In order to evaluate the nature of each area or subarea, the following information should be compiled for each zone individually. Please include a separate form for each exclusive and/or nonexclusive ambulance zone.

Local EMS Agency or County Name:	**Ventura County EMS**
Area or subarea (Zone) Name or Title:	**ASA 4**
Name of Current Provider(s):	**American Medical Response** **Serving since 1962**

Include company name(s) and length of operation (uninterrupted) in specified area or subarea.

Area or subarea (Zone) Geographic Description:

Combination of Metropolitan/Urban, Suburban/Rural and Wilderness areas including the Cities of Moorpark and Thousand Oaks.

Statement of Exclusivity, Exclusive or non-Exclusive (HS 1797.6):

Exclusive

Include intent of local EMS agency and Board action.

Type of Exclusivity, "Emergency Ambulance", "ALS", or "LALS" (HS 1797.85):

Emergency Ambulance for 911 calls only

Include type of exclusivity (Emergency Ambulance, ALS, LALS, or combination) and operational definition of exclusivity (i.e., 911 calls only, all emergencies, all calls requiring emergency ambulance service, etc.).

Method to achieve Exclusivity, if applicable (HS 1797.224):

Grandfathered

American Medical Response currently provides service to ASA 4. Paramedic service was added to the service area in 1983. There have been numerous ownership changes in the past 15 years due to ambulance industry consolidations; however no change in scope or manner of service has occurred.

Previous Owners:
Conejo Ambulance 1962-1975
Pruner Health Services 1975-1993
Careline 1993-1996
Medtrans 1996-1999
American Medical Response 1999-present

If grandfathered, pertinent facts concerning changes in scope and manner of service. Description of current provider including brief statement of uninterrupted service with no changes to scope and manner of service to zone. Include chronology of all services entering or leaving zone, name or ownership changes, service level changes, zone area modifications, or other changes to arrangements for service.

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In order to evaluate the nature of each area or subarea, the following information should be compiled for each zone individually. Please include a separate form for each exclusive and/or nonexclusive ambulance zone.

Local EMS Agency or County Name: **Ventura County EMS**

Area or subarea (Zone) Name or Title: **ASA 5**

Name of Current Provider(s): **American Medical Response**
Serving since 1962

Include company name(s) and length of operation (uninterrupted) in specified area or subarea.

Area or subarea (Zone) Geographic Description:
Combination of Metropolitan/Urban, Suburban/Rural and Wilderness areas including the City of Camarillo.

Statement of Exclusivity, Exclusive or non-Exclusive (HS 1797.6):
Exclusive
Include intent of local EMS agency and Board action.

Type of Exclusivity, "Emergency Ambulance", "ALS", or "LALS" (HS 1797.85):
Emergency Ambulance for 911 calls only
Include type of exclusivity (Emergency Ambulance, ALS, LALS, or combination) and operational definition of exclusivity (i.e., 911 calls only, all emergencies, all calls requiring emergency ambulance service, etc.).

Method to achieve Exclusivity, if applicable (HS 1797.224):
Grandfathered

American Medical Response currently provides service to ASA 5. Paramedic service was added to the service area in 1985. There have been numerous ownership changes in the past 15 years due to ambulance industry consolidations; however no change in scope or manner of service has occurred.

Previous Owners:
Camarillo Ambulance 1962-1978
Pruner Health Services 1978-1993
Careline 1993-1996
Medtrans 1996-1999
American Medical Response 1999-present

If grandfathered, pertinent facts concerning changes in scope and manner of service. Description of current provider including brief statement of uninterrupted service with no changes to scope and manner of service to zone. Include chronology of all services entering or leaving zone, name or ownership changes, service level changes, zone area modifications, or other changes to arrangements for service.

If competitively-determined, method of competition, intervals, and selection process. Attach copy/draft of last competitive process used to select provider or providers.

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In order to evaluate the nature of each area or subarea, the following information should be compiled for each zone individually. Please include a separate form for each exclusive and/or nonexclusive ambulance zone.

Local EMS Agency or County Name:	**Ventura County EMS**
Area or subarea (Zone) Name or Title:	**ASA 6**
Name of Current Provider(s):	**Gold Coast Ambulance** **Serving since 1949**

Include company name(s) and length of operation (uninterrupted) in specified area or subarea.

Area or subarea (Zone) Geographic Description:

Combination of Metropolitan/Urban, Suburban/Rural and Wilderness areas including the Cities of Oxnard and Port Hueneme.

Statement of Exclusivity, Exclusive or non-Exclusive (HS 1797.6):

Exclusive

Include intent of local EMS agency and Board action.

Type of Exclusivity, "Emergency Ambulance", "ALS", or "LALS" (HS 1797.85):

Emergency Ambulance for 911 calls only

Include type of exclusivity (Emergency Ambulance, ALS, LALS, or combination) and operational definition of exclusivity (i.e., 911 calls only, all emergencies, all calls requiring emergency ambulance service, etc.).

Method to achieve Exclusivity, if applicable (HS 1797.224):

Grandfathered

Effective May 2010, Gold Coast Ambulance became a wholly owned subsidiary of Emergency Medical Services Corporation. They continue to operate as Gold Coast Ambulance and have served ASA 6 since 1949. Paramedic service was added to the service area in 1984. Prior to May 2010, Ken Cook, owned the company after purchasing it in 1980 from previous owner, Bob Brown. Oxnard Ambulance Service changed it's name to Gold Coast Ambulance in 1991, however no change in scope or manner of service has occurred.

If grandfathered, pertinent facts concerning changes in scope and manner of service. Description of current provider including brief statement of uninterrupted service with no changes to scope and manner of service to zone. Include chronology of all services entering or leaving zone, name or ownership changes, service level changes, zone area modifications, or other changes to arrangements for service.

If competitively-determined, method of competition, intervals, and selection process. Attach copy/draft of last competitive process used to select provider or providers.

EMS PLAN
AMBULANCE ZONE SUMMARY FORM

In order to evaluate the nature of each area or subarea, the following information should be compiled for each zone individually. Please include a separate form for each exclusive and/or nonexclusive ambulance zone.

Local EMS Agency or County Name: **Ventura County EMS**

Area or subarea (Zone) Name or Title: **ASA 7**

Name of Current Provider(s): **American Medical Response**
Serving since 1962

Include company name(s) and length of operation (uninterrupted) in specified area or subarea.

Area or subarea (Zone) Geographic Description:
Combination of Metropolitan/Urban, Suburban/Rural and Wilderness areas including the City of Ventura.

Statement of Exclusivity, Exclusive or non-Exclusive (HS 1797.6):
Exclusive
Include intent of local EMS agency and Board action.

Type of Exclusivity, "Emergency Ambulance", "ALS", or "LALS" (HS 1797.85):
Emergency Ambulance for 911 calls only
Include type of exclusivity (Emergency Ambulance, ALS, LALS, or combination) and operational definition of exclusivity (i.e., 911 calls only, all emergencies, all calls requiring emergency ambulance service, etc.).

Method to achieve Exclusivity, if applicable (HS 1797.224):
Grandfathered
American Medical Response currently provides service to ASA 7. Paramedic service was added to the service area in 1986. There have been numerous ownership changes in the past 15 years due to ambulance industry consolidations; however no change in scope or manner of service has occurred.

Previous Owners:
Courtesy Ambulance 1962-1991
Pruner Health Services 1991-1993
Careline 1993-1996
Medtrans 1996-1999
American Medical Response 1999-present

Beginning July 1, 1996, while waiting for the Supreme Court ruling in the County of San Bernardino v. City of San Bernardino (1997) decision, the Ventura City Fire Dept. began providing transport services within the incorporated city limits of Area 7. The scope of service provided by Medtrans did not change during this time, as it continued to provide emergency paramedic ambulance service to all portions of Area 7. Ventura City immediately ceased transport operations upon the Supreme Court ruling against the City of San Bernardino on June 30, 1997.

If grandfathered, pertinent facts concerning changes in scope and manner of service. Description of current provider including brief statement of uninterrupted service with no changes to scope and manner of service to zone. Include chronology of all services entering or leaving zone, name or ownership changes, service level changes, zone area modifications, or other changes to arrangements for service.

If competitively-determined, method of competition, intervals, and selection process. Attach copy/draft of last competitive process used to select provider or providers.

TRAUMA SYSTEM STATUS REPORT

Reporting for Calendar Year 2018

Steve Carroll, EMS Administrator
Karen Beatty Senior EMS Specialty Systems Coordinator

Trauma System Summary

The Ventura County trauma system was created by a resolution of the Ventura County Board of Supervisors in 2010. Ventura County Medical Center (VCMC) and Los Robles Regional Medical Center (LRRMC) are County-designated Level II trauma centers and are geographically situated to provide similar access to trauma care for all areas of the County.

Both trauma centers are required by County EMS contract to maintain American College of Surgeons (ACS) verification. LRRMC was awarded their latest ACS verification in February 2016 and anticipate their next ACS visit in January 2019. VCMC renewed their verification with their latest ACS visit in June 2017.

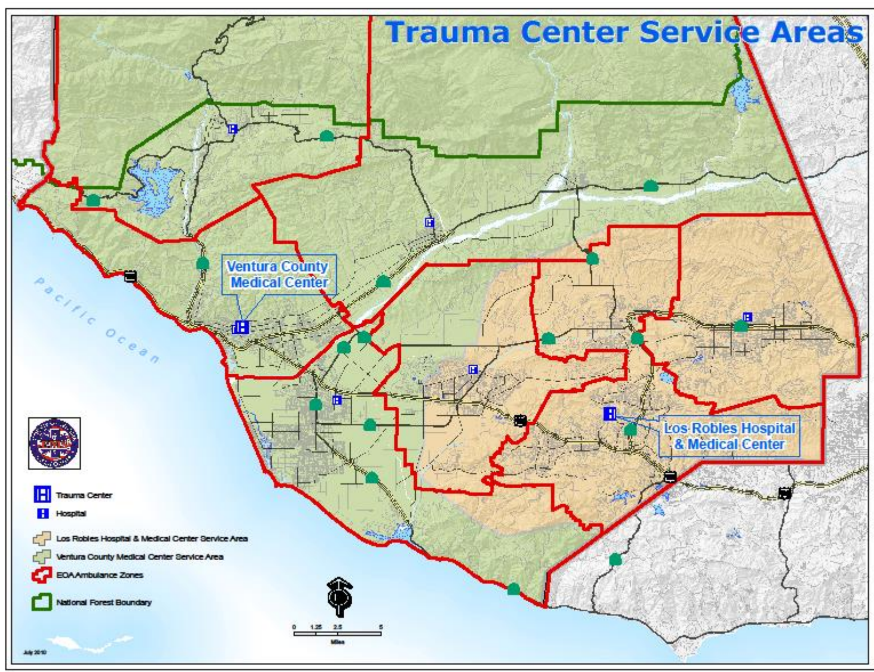
VCMC provides trauma care for the West County, including the south coast and Los Padres National Forest areas. Their trauma director is Dr. Thomas Duncan and Gina Ferrer, RN, is their trauma program manager (TPM).

LRRMC provides trauma care for the East County, including areas bordering Kern County to the north and Los Angeles County to the south. Their trauma director is Dr. Makruhi Kademian, and the TPM is Cynthia Marin, RN.

Prehospital "Trauma Triage and Destination Criteria" were updated and revised in June 2018 to reflect the needs and practices of the system. Two additional criteria were added to the field triage decision scheme and will be described under "Changes in Trauma System."

Trauma Center catchment areas are assigned according to drive time from an incident to the trauma center. With the population centers and division of trauma destinations, most trauma patients from a 911 incident arrive at a trauma center within fifteen minutes after an ambulance departs the scene.

Ventura County Trauma Center Catchment Map



2018 Ventura County Trauma Destinations

Base Hospital Destination	Step 1 TOTAL 282	Step 2 TOTAL 209	Step 3 TOTAL 438
VCMC Trauma Base Hospital	190	167	288
VCMC	179	162	236
CMH	4	0	5
SPH	0	0	3
SJRMC	4	1	18
SJPV	1	1	3
OVH	1	1	7
HMNMH	1	2	15
Kern County Medical Center	0	0	0
Santa Barbara Cottage Hospital	0	0	1
LRHMC Trauma Base Hospital	92	42	150
LRHMC	90	42	147
SVH	1	0	2
Kaiser WH	0	0	0
Holy Cross	1	0	1

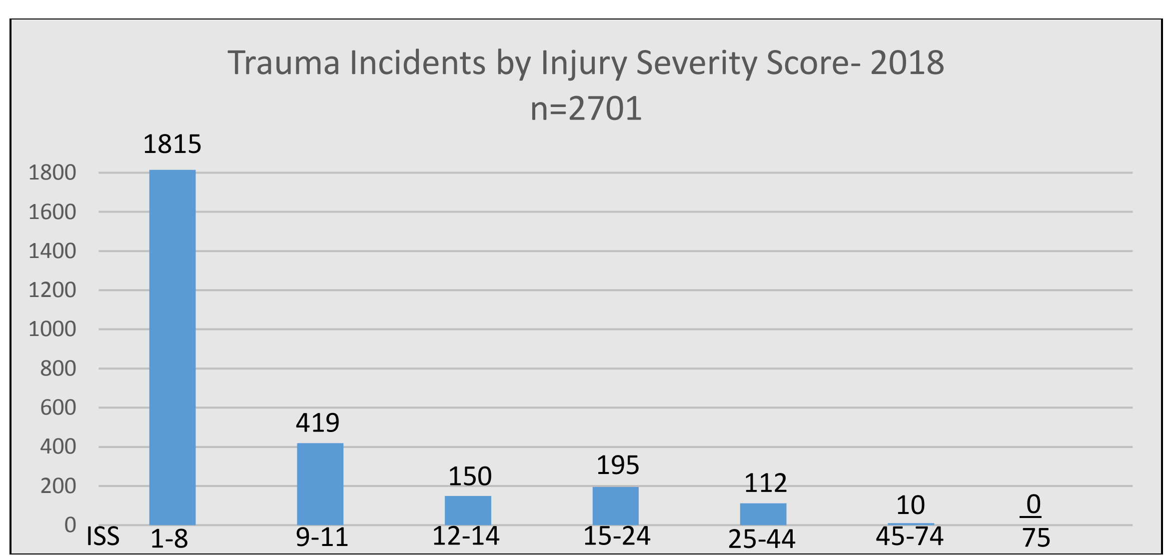
2018 Step 1-3 by Hospital	**N**
Ventura County Medical Center	577
Los Robles Hospital and Medical Center	279
St. John's Regional Medical Center	23
Henry Mayo Newhall Memorial Hospital	18

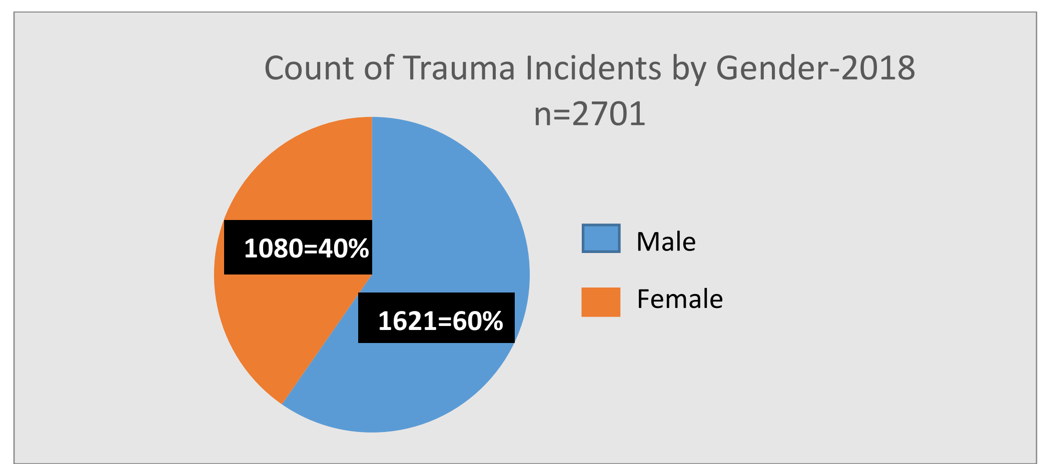
Community Memorial Hospital	9
Ojai Valley Hospital	9
St. John’s Pleasant Valley Hospital	5
Santa Paula Hospital	3
Providence Holy Cross	2
Simi Valley Hospital	3
Kern County Medical Center	0
Cottage Hospital	1
TOTAL	**929**

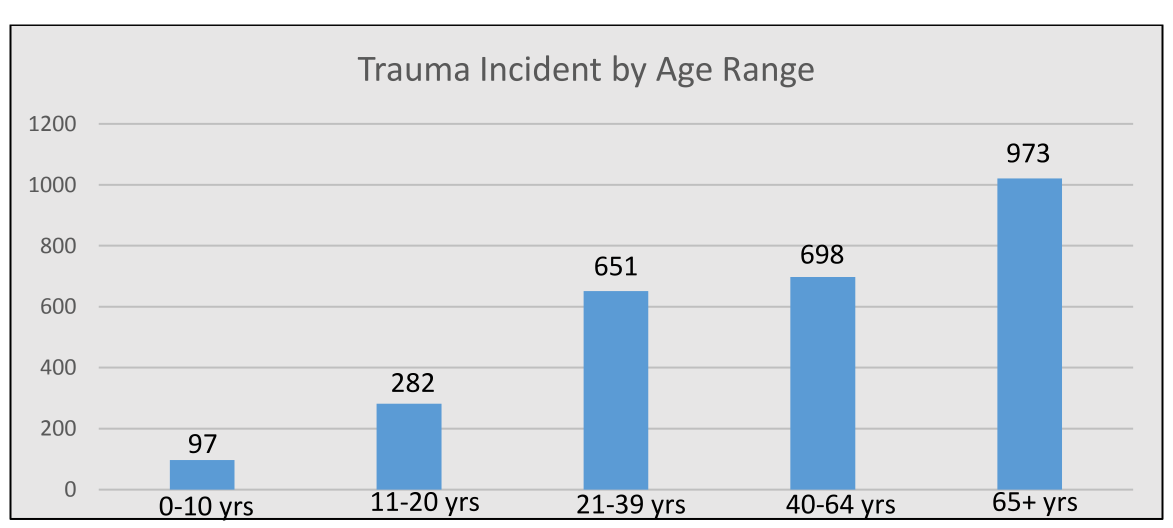
2018 Step 4 by Hospital	**N**
St. John’s Regional Medical Center	669
Los Robles Hospital and Medical Center	523
Community Memorial Hospital	369
St. John’s Pleasant Valley Hospital	273
Ventura County Medical Center	277
Simi Valley Hospital	178
Ojai Valley Hospital	107
Santa Paula Hospital	48
Henry Mayo Newhall Memorial Hospital	6
Santa Barbara Cottage Hospital	3
Kaiser Woodland Hills Hospital	1
TOTAL	**2456**

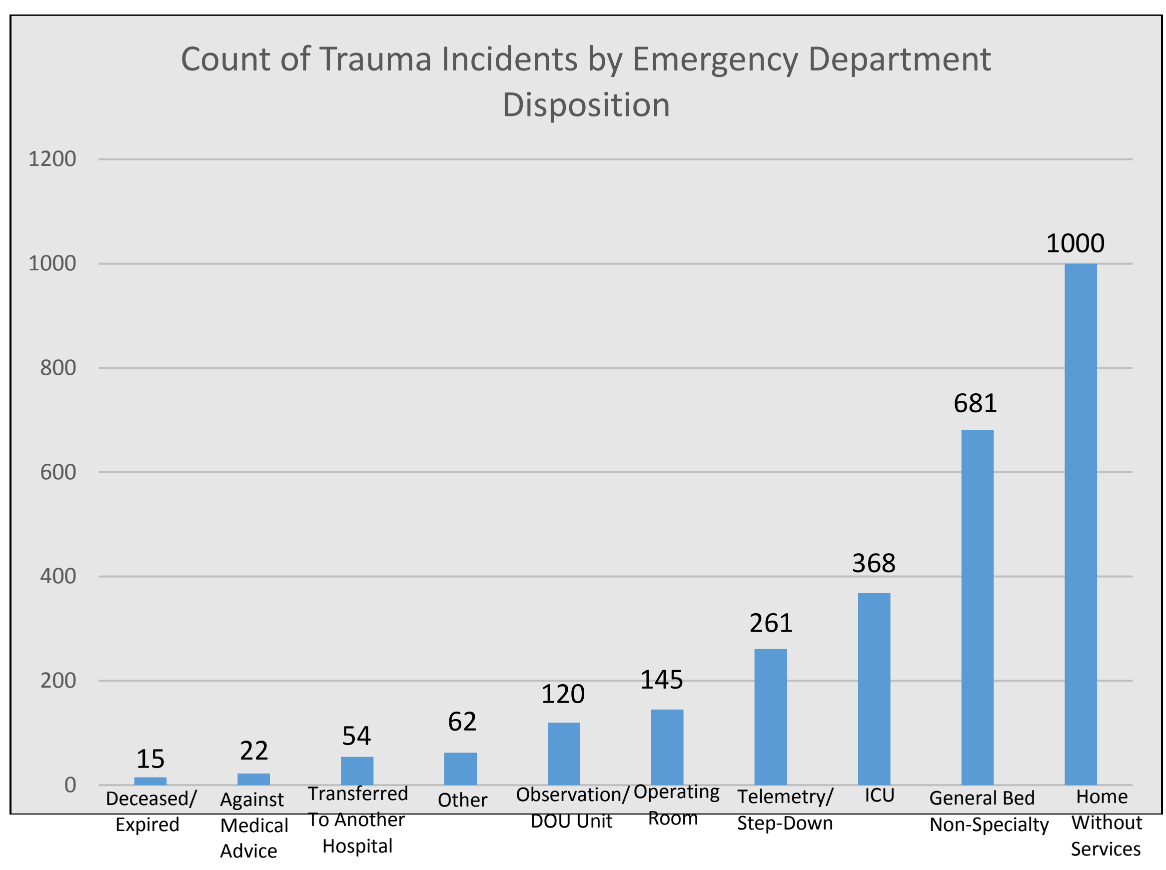
Ventura County Trauma System Statistics 2018	**N**
Pts meeting trauma triage criteria Step 1-3	929
Major trauma (ISS ≥ 16) transported directly to trauma center by EMS	273
Major trauma pts (ISS ≥ 16) transferred to a trauma center	33
Major trauma pts (ISS ≥ 16) *arrived non-trauma hospital by EMS*, transferred to trauma center	13
Pts meeting triage criteria Step 1-3 who were not transported to a trauma center	52
Under triage rate = 13/929	1.4%

Ventura County Trauma System Statistics









Changes in Trauma System

Changes to the trauma system include the following:

Policy 1405, "Trauma Triage and Destination Criteria" was revised in June 2018, to reflect the needs and practices of the system. Two additional criteria were added to the Step 2, "Assess anatomy of injury" list:

- Seat belt injury: significant bruising to neck, chest or abdomen.
- Diffuse abdominal tenderness from blunt trauma.

These changes reflect the needs and practices of the system. We identified patients with seat belt injuries and abdominal pain that were transported to a non-trauma center as a Step 4.6 or a no step, and then transferred to a trauma center with significant internal injuries. These criteria are monitored at our quarterly Trauma Operations Review Committee (TORC).

Ventura County Field Triage Decision Scheme

For patients with visible or suspected traumatic injuries

Measure vital signs and level of consciousness

STEP 1

1.1 Glasgow Coma Scale	< 14
1.2 Systolic Blood Pressure	< 90 (< 110 in patients > 65 years)
1.3 Respiratory Rate	< 10 or > 29 breaths per minute (< 20 in infant age < 1 year)

Yes → **Contact base trauma center. Transport to trauma center**

No ↓

Assess anatomy of injury

STEP 2

- **2.1** All penetrating injuries to head, neck, torso and extremities proximal to elbow and knee
- **2.2** Flail chest
- **2.3** Two or more proximal long-bone fractures (femur, humerus)
- **2.4** Crushed, degloved, or mangled extremity
- **2.5** Amputation proximal to wrist and ankle
- **2.6** Pelvic fractures
- **2.7** Open or depressed skull fracture
- **2.8** Paralysis
- **2.9** Seat belt injury: significant bruising to neck, chest, or abdomen
- **2.10** Diffuse abdominal tenderness from blunt trauma

Yes → **Contact base trauma center. Transport to trauma center**

No ↓

Assess mechanism of injury and evidence of high-energy impact

STEP 3

Falls
- **3.1.1** Adults: > 20 feet (one story is equal to 10 feet)
- **3.1.2** Children < 15 years old: > 10 feet, or two times the height of the child

High-risk auto crash
- **3.2.1** Intrusion > 12" patient site or > 18" any occupant site, including roof
- **3.2.2** Ejection: partial or complete from automobile
- **3.2.3** Death in same passenger compartment

3.3 Auto vs. pedestrian/bicyclist thrown, run over, or with > 20 mph impact

3.4 Unenclosed vehicle crash > 20 mph

Yes → **Contact base trauma center for destination decision**

No ↓

Assess special patient or system considerations

STEP 4

- **4.1** Age > 65
- **4.2** Head injury with loss of consciousness AND on an anticoagulant or antiplatelet drug[1]
- **4.3** Burns with trauma mechanism
- **4.4** Time sensitive extremity injury (open fracture, neurovascular compromise)
- **4.5** Pregnancy > 20 weeks with known or suspected abdominal trauma
- **4.6** Prehospital care provider or MICN judgment
- **4.7** Amputation or partial amputation of any part of the hand[2]
- **4.8** Penetrating injury to the globe of the eye, at risk for vision loss[3]

Yes → **Contact regular catchment base hospital. Consider transport to trauma center or specific resource hospital**

[1] See list
[2] Consider LRHMC
[3] Consider VCMC

No ↓

Transport to closest ED or by patient preference

Version 5 Revised 6-1-2018

Number and Designation Level of Trauma Centers

There are presently two designated and accredited Level II trauma centers in Ventura County. Both trauma centers are TQIP participants.

East County:
Los Robles Regional Medical Center (LRRMC)
215 West Janss Road
Thousand Oaks, CA 91360

West County:
Ventura County Medical Center (VCMC)
300 Hillmont Avenue
Ventura, CA 93003

Trauma System Goals and Objectives

In keeping with the context of the EMS System in general, goals and objectives have been established or revised with realistic tasks, stakeholders, and target dates.

1. Identification and Access:

Goal: To monitor and possibly improve injury identification and transport to the most appropriate hospital.

Objective: Ventura County EMS under triage of trauma patients will be less than 5% of all patients transported to hospitals for care of traumatic injuries.
2018=1.4%

Update: VCEMS bases prehospital trauma triage policy on current research and best practice recommendations from the 2011 MMWR "Guidelines for Field Triage of Injured Patients: Recommendations of the National Expert Panel on Field Triage," as well as a limited set of system-specific criteria (see Policy 1405, "Trauma Triage and Destination Criteria").

According to Resources for Optimal Care of the Injured Patient, ACS 2014 (Orange Book), under triage for prehospital trauma patients may be defined by a variety of ways, including analysis of "major trauma patients who were transported incorrectly to a non-trauma center." For Ventura County's trauma system, we currently track and review each "emergent" trauma transfer for appropriateness of care and transfer criteria. For those who were transported to a non-trauma hospital by EMS and subsequently emergently transferred to a trauma center, the prehospital care and decision making is reviewed as well.

January – December 2018:

273	Total number of patients transported from the field by EMS to a trauma center, who had ISS ≥ 16
137	LRRMC
136	VCMC

15	Emergent trauma transfers to trauma centers, *arrived non-trauma center hospital by POV regardless of ISS.*
18	Emergent trauma transfers to trauma centers, *arrived non-trauma center hospital by EMS regardless of ISS.*

Objective: under triage analysis of the system will also include a review of patients "who were taken to a non-trauma center hospital and then died of potentially preventable causes" (Orange Book).

VCEMS works with Ventura County Office of Vital Statistics to discover and review cases in which a patient died of a trauma-related cause, in a Ventura County non-trauma center hospital. Each case is brought to the Trauma Operational Review Committee (TORC) for committee discussion as to appropriateness of care.

Timeline: Goal has been achieved: Follow-up is triannual, ongoing.

2. Prehospital Care/Transportation:

Goal: Assure high quality prehospital treatment and transportation systems for the movement of injured patients.

Objective: VCEMS will plan for trauma-specific education of prehospital care providers.

Update: Trauma-specific education of prehospital care providers has been delivered by first responder fire departments, ambulance providers, base hospital prehospital care coordinators, and regular presentations of trauma-specific topics by the two trauma centers. A master calendar is maintained at VCEMS and posted on the website.

Trauma-specific education is also provided for the paramedic education program in the County, and the MICN development course held each year.

Revisions in policies that affect the delivery of prehospital care to trauma patients are brought to a twice-yearly EMS update for EMTs and paramedics.

EMS will continue to monitor and review prehospital trauma care throughout system using current methods of tracking and loop closure when appropriate.

Timeline: Goal has been achieved: Follow-up is biannual, ongoing.

Goal: Assure high quality prehospital treatment and transportation systems for the movement of injured patients.

Objective: VCEMS will oversee and monitor EMS transports of patients triaged into Step 1 – 4 of the Trauma Triage Decision Scheme to assure appropriateness of destinations.

Update: EMS tracks all trauma destinations on a monthly basis and conducts follow-up for incidents in which trauma patients who meet Step 1 – 3 criteria are transported to a non-trauma hospital.

Timeline: Goal has been achieved: Follow-up is monthly, occasional case-by-case, and ongoing.

Goal: Collaborate with county agencies and trauma centers to provide "STOP THE BLEED" education and equipment.

Objective: Establish and maintain the "Ventura County Stop the Bleed Program."

Update: EMS, in partnership with the County CEO's office and Ventura County Fire Protection District, launched the Ventura County Stop the Bleed Program. The program consists of educating the public in lifesaving skills required in the first few minutes of major trauma and strategically locating "Bleeding Control Kits" in government buildings throughout Ventura County.

In 2018, VCEMS and our partners trained nearly 400 Ventura County staff and County Supervisors. The program was well received and garnered full support from the Board. With the support of government administrators and partner agencies

Timeline: Goal was achieved, and training will be on-going. VCEMS will expand the training to local cities so they may train their employees and install “Bleeding Control Kits”.

3. Hospital Care:

Goal: Development of a network of trauma care that meets the needs of an appropriately regionalized system.

Objective: Patients who are injured in multiple casualty incidents (MCIs) and patients injured at locations significantly closer to out-of-county trauma centers, may be appropriately transported to a Los Angeles or Santa Barbara trauma center.

The base hospital for incidents located near the northern border of Ventura County may direct patients to Santa Barbara Cottage Hospital, and patients injured near the northeastern edge of the County may be directed to Henry Mayo Hospital, Northridge Hospital, and Holy Cross Hospital in Los Angeles County. Letters of agreement regarding accepting and providing care for patients with traumatic injuries are in place between Ventura, Los Angeles, and Santa Barbara Counties.

For 2018, EMS out-of-county transports for trauma care include the following:

<u>Step 1</u>
1 Henry Mayo Newhall Memorial Hospital
1 Providence Holy Cross Hospital
<u>Step 2</u>
2 Henry Mayo Newhall Memorial Hospital
<u>Step 3</u>
15 Henry Mayo Newhall Memorial Hospital
1 Providence Holy Cross Hospital
1 Santa Barbara Cottage Hospital

Timeline: Goal has been achieved: Follow-up is yearly, ongoing.

4. Evaluation:

Goal: To establish a monitoring program designed to assure appropriate access, flow and treatment of the trauma patient and to assist with trauma system refinements.

Objective: For Step 1-4 trauma patients transported to non-trauma center hospitals in the County, as well as trauma centers out-of-county, VCEMS will establish a system for obtaining a limited dataset (including outcome) that will be used to provide a clearer evaluation of the trauma system.

Update: VC EMS Policy 1403 "Trauma Data" was brought to the Trauma Operational Review Committee for revision in 2017, with no consensus reached for formal submission of trauma data from the non-trauma center hospitals. Currently, details from significant trauma incidents, in which patients are transported to a non-trauma center hospital, are reviewed on a case-by-case basis.

Timeline: This objective was updated in March 2019.

5. Injury Prevention:

Goal: Integrate injury control program standards into the trauma system that are sensitive to the special needs/epidemiology of Ventura County.

Objectives:

1. *VCEMS will have fully implemented the EMS portion of the Elderly Fall Prevention Coalition project*

2. *VCEMS will identify and collaborate with all County trauma centers' fall prevention efforts.*

Update: The Elderly Fall Prevention Coalition (EFPC) fall prevention project was fully implemented in the pilot area, which included the catchment area for VCMC, in July 2014. This is primarily a "secondary fall" prevention effort and is directed toward assisting elderly individuals who have already experienced a fall in the home with resources to prevent another fall. LRRMC is a member of EFPC and actively participates in fall prevention planning and programs.

EMS providers who respond to 911 requests for assistance for elderly patients who have had a ground-level fall do quick home assessments for fall risk and if appropriate, ask the patient and family members for permission for a fall-prevention coordinator with Ventura County Area Agency on Aging to contact them by phone. The coordinator then matches up patients with services to help prevent recidivist falls.

A feature of the Elderly Fall Prevention Program directs efforts toward elderly individuals who have been referred from Ventura County Public Health after a fall risk assessment, as well as self-referral of seniors. "Stepping On" is a workshop that provides exercises and strategies to prevent falling. "A Matter of Balance" is a program designed to manage risks of falls and increase activity levels. "Tai Chi" is a simplified class intended for beginners, is appropriate for seniors, and concentrates on moving through better balance. Classes are free of charge, evidence-based, and funded by a grant from the State.

Two fall prevention events are held annually. A bilingual fall prevention program (English and Spanish) was presented in Oxnard on May 19, 2018. Another fall prevention program was held on September 22, 2018, in Ventura. Both events included prevention presentations by local physicians, nurses, physical therapists, social workers, and other experts in elderly trauma prevention. Additionally, the seasonal flu vaccine, along with other vaccines (shingles, pneumonia) are offered free of charge.

County trauma centers' injury prevention efforts are identified and discussed at specific multidisciplinary trauma center meetings, which the EMS trauma manager attends, as well as EMS-led meetings of the trauma program managers. Dr. Duncan, the trauma medical director for VCMC, has presented the EFPC program at national conferences, and our innovative, inclusive model has been acclaimed in many other systems.

Ventura County Trauma of Elderly Statistics 2018

Ventura County EMS Elderly Population	**N**
Patients age ≥ 65 years With ICD-10 indicating "fall"	635
ISS 0 – 8	423
ISS 9-15	152
ISS 16-24	39
ISS ≥ 25	21
Expired in hospital	17
Discharged to hospice	14

Timeline: Due to financial and staffing considerations, objective 1 remains in process. Objective 2 has been achieved. Follow-up for both objectives is at least quarterly, ongoing.

6. Inclusive Trauma System:

Goal: Promote collaboration and partnership in improving trauma care throughout the County. Facilitate the establishment of networks in which trauma care providers may learn, share, and operate as an inclusive system.

Objective: Provide a forum for trauma care providers working in Ventura County's six non-trauma center hospitals to participate in trauma education, problem-solving, and policy development/review.

Update: VCEMS encourages the non-trauma center hospitals to be active in the trauma system through the triannual meetings of the Trauma Operational Review Committee. All emergent transports of trauma patients from a non-trauma center hospital to a trauma center are tracked and discussed with sending facility personnel.

Timeline: Follow-up is at least triannual, with individual incidents addressed as they occur. Ongoing.

7. Assure Currency of Trauma Policies:

Goal: Assure EMS trauma policies conform to national standards of the ACS and CDC.

Objective: VCEMS Trauma Policies will be reviewed for consistency with current ACS and CDC recommendations.

Update: All trauma policies reflect current national standards. Policies are reviewed, revised, and updated on a three-year cycle, and are brought to TORC and TAC, as appropriate.

Policy Number	Name	Reviewed/ Revised	Next Review
1400	Trauma Care System General Provisions	3/2017	3/2020
1401	Trauma Center Designation	7/2011	RETIRED
1402	Trauma Committees	3/2017	3/2020
1403	Trauma Data	3/2019	3/2022
1404	Guidelines for Interfacility Transfer of Patients to a Trauma Center	3/2017	3/2020
1405	Trauma Triage and Destination Criteria	4/2018	4/2021
1406	Trauma Center Standards	3/2017	3/2020

Timeline: Follow-up is triannual, ongoing.

Changes to Implementation Schedule

There are no changes to implementation schedule to report at this time.

System Performance Improvement

Trauma system performance review currently includes the following:

Trauma Operational Review Committee (TORC): This committee meets tri-annually, to discuss and act upon issues affecting the delivery of trauma care in the County. As an inclusive committee, TORC is a forum for quality improvement activities involving every prehospital care provider and hospital in the County. Case reviews are provided by each trauma center that address system issues.

Trauma Audit Committee (TAC): This committee meets tri-annually to serve as a collaborative forum in which trauma issues and trauma cases that meet specific audit filter criteria may be discussed and reviewed. The committee consists of VC EMS personnel, trauma surgeons, program managers and prehospital coordinators from three level II trauma centers and two Level III trauma center, located in the tri-county region of Ventura, Santa Barbara, and San Luis Obispo Counties.

Pre-TAC: This committee meets tri-annually to provide a working platform for TAC meetings. It involves the trauma managers from three counties and five trauma centers, as well as the medical director who chairs TAC.

Trauma Huddle: This committee meets monthly or semi-monthly, depending on the needs and activities of the trauma centers, to discuss and share specific county trauma center issues. It involves the trauma center and LEMSA program managers, with PI, prevention, and registrar personnel attending as needed. This committee provides an ongoing forum for collaboration and networking.

Progress on Addressing EMS Authority Trauma System Plan Comments

We reviewed Mr. McGinnis 1/28/2018 letter approving the VCEMS Trauma System for 2017. All categories of the trauma system status report were accepted as written, with no required actions or recommendations.

Other Issues

There are presently no other issues.

END OF REPORT

Ventura County EMS Plan
2018 QUALITY IMPROVEMENT PROGRAM
ANNUAL UPDATE

August 2019

Steve Carroll, EMS Administrator
Karen Beatty, Specialty Systems Coordinator

QI Program Summary

Ventura County EMSA continues the process of redefining our current QI Plan. We are re-organizing our structure as it relates to how our core measure data is collected and how best to disseminate the information to our key stakeholders. We are ensuring that all core measures are patient focused and implementation for improvement will be timely and sustainable.

Changes in the QI program

Thus far, in 2019, we have analyzed our 2018 data to identify improvement projects. Through our monthly meetings with our STEMI, Stroke, Trauma, and Sudden Cardiac Arrest committees, we continue to monitor our Air-Q study, PRESTO study, Stroke Core Measures, Trauma triage and destination, and cardiac arrest survival. In October of 2017, we started a new process to identify ELVO stroke patients prehospital and transport them directly to a thrombectomy capable acute stroke center (TCASC). We have monitored and collected data for all of 2018 and have made changes in 2019 to improve our FP “ELVO” alert rate.

We collect data from our pre-hospital agencies and hospitals to follow a patient from a 911 call to activities done in the hospital. The following are a few of those core measures:

1. Dispatch notified to brain image interpretation time: In 2018 we had a median time of 56 minutes, which is a slight increase from 52 minutes in 2017. We expected an increase in this time due to the fact we started to assess for ELVO patients countywide and transport directly to one of our two TCASCs.

2. Dispatch notified to t-PA given in ED: In 2018, we had a median time of 71 minutes which is a decrease from 77 minutes in 2017. We have a median scene time of 13 minutes which is the same as 2017.

3. Dispatch to balloon time for our STEMI patients has a median time of 87 minutes for 2018, which is a slight increase from 81 minutes in 2017.

The hospitals utilize the AHA/ASA “Guidelines for Early Management of Patients with Acute Ischemic Stroke” and the American College of Cardiology guidelines for the Management of STEMI”.

In, 2018 we monitored our new policy to screen for ELVO type stroke patients. Once identified, using a prehospital screening tool called the Ventura ELVO Score (VES), the patient was transported to one of our TCASCs. This addition to our stroke triage system is designed to preferentially divert patients to a facility capable of performing mechanical thrombectomy. Paramedics perform a two-part screen: First, they screen for stroke using the (CPSS). Second, patients who are CPSS positive are screened for an ELVO using the VES. Patients who screen positive for both CPSS and VES are transported directly as an "ELVO Alert" to one of our designated TCASCs. We had 260 "ELVO Alerts" with 27% being actual "ELVOs", and 12% being Hemorrhagic strokes. We are monitored this system enhancement to determine the improved outcomes for patients with an acute stroke due to an emergent large vessel occlusion.

We are participating in Ventura County's Fall Prevention program by gathering data on patients that have fallen or have a potential to fall and are *not* transported by EMS to the hospital. We answer a set of questions that are sent to the fall prevention coordinator along with leaving educational material about fall prevention at the home. We meet quarterly to discuss the data and areas of improvement. The Fall Prevention Committee had two community outreach symposiums in 2018, including one in Spanish. We have seen a decrease in secondary falls during 2018.

We continued our Sidewalk CPR training in 2018 and had a slight decrease in bystander CPR during full arrests from 53% in 2017 to 52% in 2018.

Indicators used during the reporting year

Our compliance rate with the State Core Measures was 100%.

For the State Core Measures, please see Appendix A

Data Collection

We receive our data from receiving hospitals using Outcome Sciences Registry for our Stroke Program, CARES Registry for our Sudden Cardiac Arrest, Trauma Registry for our Trauma data, and our new edition of Get With The Guidelines-Coronary Artery Disease (GWTG-CAD) for our STEMI data. We use Image Trend for our EMS e-PCR data.

Audit Critical skills

Ventura County EMS continues to require all paramedics to attend 4 airway lab stations over a two-year period along with one paramedic skills day annually. Included in these paramedic skills labs are education stations covering certain low frequency, high risk procedures. In addition, various critical procedures are monitored regularly through Ventura County electronic Patient Care Reporting System. Skills monitored through this method are advanced Airway, transcutaneous pacing, and intraosseous infusion.

Performance Improvement

We developed and distributed to our stakeholders a complete annual EMS Systems Performance Report along with posting it on our EMS website for the public to review.

Starting July 1, 2018, we implemented the training for EMT new scope of practice to include the administration of epinephrine by auto-injector or IM injection, administration of naloxone intranasal, and to perform a finger stick blood glucose test.

On September 1, 2018 we started using GWTG-CAD Registry for our STEMI patients instead of the secure protected spreadsheet we had been using for years. This will now allow us to run more reports and collect more data for review.

We developed the VCEMS mobile App in spring of 2018 for easy reference of our policies and procedures.

Ventura County EMS Agency, along with 10 other first responder agencies, received the 2018 Mission Lifeline Gold Plus Level Award for outstanding performance in STEMI data measures.

We continued to monitor our survival rate for CPC 1 or CPC 2 patients from cardiac arrest. We continue with a yearly training program for our Cardiac Arrest Management (CAM) to reinforce the importance of following CAM during a full arrest. In 2018, we saw an increase to 13.6% survival rate from 10.8% in 2017.

The Ventura County Emergency Medical Services Agency (VCEMS), in partnership with the County CEO's office and Ventura County Fire Protection District, continues the Ventura County Stop the Bleed Program. The program consists of educating the public in lifesaving skills required in the first few minutes of major trauma and strategically locating "Bleeding Control Kits" in government buildings throughout Ventura County. In 2018, VCEMS and our partners trained nearly 400 Ventura County employees.

Policies

We requested and were approved by the State EMSA to continue our optional scope of practice for paramedics to transfer patients that are on a heparin or nitroglycerin infusion. This was extended until 11/2020.

In order to manage the shortage of dopamine, we switched to push-dose epinephrine starting in the fall of 2018.

We removed the treatment of nitroglycerin for patients who are having an inferior MI to help decrease severe hypotension as recommended by the latest studies.

We updated our language, as recommended by the American Academy of Pediatrics, to use brief, resolved, unexplained event (BRUE) instead of apparent life-threatening event (ALTE).

We added to perform an EKG after a successful cardioversion or defibrillation in the field.

We changed the site for needle thoracostomies from second intercostal space in the mid-clavicular line, to the lateral fourth intercostal space in the anterior-axillary line as the preferred method.

2019 Goals

After completion of data collection on our FP ELVO Alert rate in 2018, we will modify the ELVO Alert Criteria to decrease our FP rates.

Although we currently have designated two EMS TCASCs in our county, we would like to see The Joint Commission designate at least one, possible two of our hospitals as a Thrombectomy Capable Stroke Center (TSC).

Update and implement policies that reflect the new CA State STEMI and Stroke regulations in Title 22.

Develop and submit a STEMI Critical Care System Plan and a Stroke Critical Care System Plan to the CA State EMSA.

Update and redefine our spinal motion restriction policy to decrease the number of patients placed on a backboard.

Develop policies to identify specific treatment for pediatric full arrest patients and traumatic full arrest patients.

Respectfully submitted by,

Steve Carroll
EMS Administrator

Karen Beatty, RN
Specialty Systems Coordinator

Appendix A

State Core Measures	2018
TRA 1-90th percentile scene time from patient contact to arrival at a trauma center	45:07
TRA 2-Measurement of trauma patients transported to a trauma center	86%
ACS 1-ASA administration for chest pain/discomfort	58%
ACS 3-90th percentile scene time from patient contact to arrival at a STEMI Center	35:07
ACS 4-Advanced notification for STEMI patients	90%
ACS 6-Time to EKG	8:13
Hyp 1-Treatment administered for hypoglycemia	73%
STR 1-Prehospital screening for suspected stroke patients	75%
STR 2-Glucose testing for suspected stroke patients	86%
STR 4-Advance hospital notification for stroke patients	96%
PED 3-Respiratory assessment for pediatric patients	99%
RST 4-911 requests for services that include a lights and/or siren response	90%
RST 5-911 requests for services that include a lights and/or siren transport	12%

A Department of Ventura County Health Care Agency

Rigoberto Vargas, MPH
Director

Steven L. Carroll, Paramedic
EMS Administrator

Daniel Shepherd, MD
EMS Medical Director

Angelo Salvucci, MD, FACEP
Assistant EMS Medical Director

December 1, 2018

Haady Lashkari, CAO
Ojai Valley Community Hospital
1306 Maricopa Highway
Ojai, CA 93023

Dear Mr. Lashkari:

Ojai Valley Community Hospital has successfully passed the biennial review outlined in VCEMS Policy 420 – Receiving Hospital Standards and will continue to operate as a receiving hospital in the County of Ventura. Utilizing the criteria outlined in Policy 420, VCEMS has reviewed the materials related to OVCH's standby emergency department capabilities and staffing and have determined them to be appropriate. We feel that it remains in the best interest of the Ojai Valley community to continue allowing ambulance transport to OVCH for patients meeting general (non-specialty care) criteria. This designation will remain in effect until your next review scheduled for November 30, 2020, provided OVCH continues to meet all standards outlined in VCEMS Policy 420.

Please do not hesitate to contact either one of use with any questions or concerns related to this matter.

Sincerely,

Steve Carroll, Paramedic
VCEMS Administrator

Daniel Shepherd, MD
VCEMS Medical Director

October 12, 2018

Steve Carroll, EMS Administrator
Ventura County Emergency Medical Services Agency
2220 E. Gonzales Rd, Suite 200
Oxnard, CA 93036

Re: Request for Approval, Continuing Designation as a Ventura County Receiving Hospital.

Dear Mr. Carroll:

We would like to formally request that Ojai Valley Community Hospital be approved to continue as a Ventura County Receiving Hospital, operating a Standby Emergency Department. Enclosed is the completed Ventura County EMS Policy 420 "Receiving Hospital Criteria Compliance Checklist."

In addition enclosed is a completed "Receiving Hospital Physician Criteria Compliance Checklist" for each physician who staffs the emergency department.

We wish to reaffirm our commitment to providing receiving hospital services and our compliance with Policy 420. Please contact us if you have any questions.

Sincerely,

OVCH Emergency Department Medical Director
Neil Canby, MD

CMHS Emergency Department Director
Elaina Hall, MSN, RN, MBA

147 N. Brent St., Ventura, CA 93003 • 805/652-5011
A not-for-profit organization.

COUNTY OF VENTURA
EMERGENCY MEDICAL SERVICES

RECEIVING HOSPITAL
CRITERIA COMPLIANCE CHECKLIST

Receiving Hospital: Ojai Valley Community Hospital Date: 10/11/18

		YES	NO
A.	Receiving Hospital (RH), approved and designated by the Ventura County , shall:	✓	
1.	Be licensed by the State of California as an acute care hospital.	✓	
2.	Meet the requirements of the Health and Safety Code Section 1250-1262 and Title 22, Sections 70411, 70413, 70415, 70417, 70419, 70649, 70651, 70653, 70655 and 70657 as applicable.	✓	
3.	Be accredited by a CMS accrediting agency	✓	
4.	Operate an Intensive Care Unit.	✓	
5.	Have the following specialty services available at the hospital or appropriate referral hospital (at the discretion of the Emergency Department (ED) Physician. and consultant Physician.) within 30 minutes:		
	• Cardiology	✓	
	• Anesthesiology	✓	
	• Neurosurgery	✓	
	• Orthopedic Surgery	✓	
	• General Surgery	✓	
	• General Medicine	✓	
	• Thoracic Surgery	✓	
	• Pediatrics	✓	
	• Obstetrics	✓	
6.	Have operating room services available within 30 minutes.	✓	
7.	Have the following services available within 15 minutes.	✓	
	• X-Ray	✓	
	• Laboratory	✓	
	• Respiratory Therapy	✓	
8.	Evaluate all ambulance transported patients promptly, either by RH Physician, Private Physician or other qualified medical personnel designated by hospital policy.	✓	
9.	Have the capability at all times to communicate with the ambulances and the BH.	✓	
10.	Designate an Emergency Department Medical Director who shall be a physician on the hospital staff, licensed in the State of California and have experience in emergency medical care. The Medical Director shall:		
	a. Be regularly assigned to the Emergency Department.	✓	
	b. Have knowledge of VC EMS policies and procedures.	✓	

	YES	NO
c. Coordinate RH activities with Base Hospital, Prehospital Services Committee (PSC), and VCEMS policies and procedures.	✓	
d. Attend or have designee attend PSC meetings.	✓	
e. Provide Emergency Department staff education.	✓	
f. Schedule medical staffing for the ED on a 24-hour basis.	✓	
11. Agree to provide, at a minimum, on a 24-hour basis, a physician and a registered nurse that meets the following criteria:		
a. All Emergency Department physicians shall:		
1). Be immediately available to ED at all times.	✓	
2) Be certified by the American Board of Emergency Medicine OR the American Osteopathic Board of Emergency Medicine OR be Board eligible OR have all of the following:	✓	
a). Have and maintain current Advanced Cardiac Life Support (ACLS) certification.	✓	
b) Have and maintain current Advanced Trauma Life Support (ATLS)certification.	✓	
c) Complete at least 25 Category I CME hours per year with content applicable to Emergency Medicine.	✓	
b. RH EDs shall be staffed by:		
1). Full-time staff: those physicians who practice emergency medicine 120 hours per month or more, and/or	✓	
2) Regular part-time staff: those physicians who see 90 patients or more per month in the practice of emergency medicine.	✓	
a) Formula: Average monthly census of acute patients divided by 720 hours equals average number of patients per hour. This figure multiplied by average hours worked by physician in emergency medicine equals patients per physician per month	✓	
b) Physicians working in more than one hospital may total their hours	✓	
c) Acute patients exclude scheduled and return visits, physicals, and patients not seen by the ED Physician	✓	

OK [illegible]

	YES	NO
d) During period of double coverage, the whole shall be met if one of the physicians meets the above standards.)	✓	
c. All RH RNs shall:		
1) Be regular hospital staff assigned solely to the ED for that shift.	✓	
2) Maintain current ACLS certification.	✓	
d. All other nursing and clerical personnel for the ED shall maintain current Basic Cardiac Life Support certification.	✓	
e. Sufficient licensed personnel shall be utilized to support the services offered.	✓	
12. Cooperate with and assist the PSC and EMS Medical Director in the collection of statistics for program evaluation.	✓	
13. Agree to maintain all prehospital data in a manner consistent with hospital data requirements and provide that the data be integrated with the patient's chart. Prehospital data shall include the VCePCR, paramedic Base Hospital communication form (from the BH), and documentation of a BH telephone communication with the RH.	✓	
14. Participate with the BH in evaluation of paramedics for reaccreditation.	✓	
15. Permit the use of the hospital helipad as an emergency rendezvous point if a State-approved helipad is maintained on hospital premises.	✓	
B. There shall be a written agreement between the RH and EMS indicating the commitment of hospital administration, medical staff, and emergency department staff to meet requirements for employment as specified by EMS policies and procedures.	✓	

COUNTY OF VENTURA
EMERGENCY MEDICAL SERVICES

RECEIVING HOSPITAL PHYSICIAN
CRITERIA COMPLIANCE CHECKLIST

Physician Name: Neil Canby, MD

Date: 10/12/18

All Emergency Department physicians shall:			YES	NO
1.	Be immediately available to the RH ED at all times.		✓	
2.	Be certified by the American Board of Emergency Medicine OR the American Osteopathic Board of Emergency Medicine OR be Board eligible OR have all of the following:		✓	
	a.	Have and maintain current ACLS certification.	✓	
	b.	Complete at least 25 Category I CME hours per year with content applicable to Emergency Medicine.	✓	
	c.	Have and maintain current Advanced Trauma Life Support (ATLS) certification.	✓	

The above named physician is:

1)	Full-time staff: A physician who practices emergency medicine 120 hours per month or more, and/or	✓	
2)	Regular part-time staff: A physician who see 90 patients or more per month in the practice of emergency medicine (Average monthly census of acute patients divided by 720 hours equals average number of patients per hour. This figure multiplied by average hours worked by physician in emergency medicine equals patients per physician per month, Physicians working in more than one hospital may total their hours, Acute patients exclude scheduled and return visits, physicals, and patients not seen by the ED Physician)		

COUNTY OF VENTURA
EMERGENCY MEDICAL SERVICES

RECEIVING HOSPITAL
STANDBY EMERGENCY DEPARTMENT
ADDITIONAL CRITERIA COMPLIANCE
CHECKLIST

Receiving Hospital w/Standby ED: OVCH

Date: 10/11/18

	EMS REVIEW	
The RH with standby ED has:	YES	NO
A. Medical staff, and the availability of the staff at various times to care for patients requiring emergency medical services.	✓	
B. Ability of staff to care for the degree and severity of patient injuries or condition.	✓	
C. Equipment and services available at the facility necessary to care for patients requiring emergency medical services and the severity of their injuries or condition.	✓	
D. During the current 2-year evaluation period, has reported to Ventura County EMS Agency any change in status regarding its ability to provide care for emergency patients.	✓	
E. Authorization by the Ventura County EMS Agency medical director to receive patients requiring emergency medical services, in order to provide for the best interests of patient care.	✓	
COMMENTS		

Ojai Valley Hospital
Policy 420, Receiving Hospital Physician Criterial Compliance Checklist
Received 10/17/2018 from Elaina Hall via email:

Name	ACLS Expires	ATLS Expires*	ED Board Expires	Comments
Canby, Neil E., M.D.	06/30/2020	Not required	12/31/2025	
Chauhan, Alena J., M.D.	08/30/2020	Not required	12/31/2025	
Clawson, Gordon M., M.D.	10/30/2018	03/30/2019	Not ED Certified	Board Certified in Family Medicine
Ferguson, Catherine D., MD	05/30/2020	08/04/2019	12/31/2025	
Gonzales, Andrea T., M.D.	05/30/2020	Not required	12/31/2025	
Hall, Charles J., D.O.	05/30/2020	Not required	In process	Residency Completed 6/30/2017
Koger, Matthew B., M.D.	10/30/2020	09/30/2017	12/31/2027	
Levin, Ross E., M.D.	03/30/2020	Not required	12/31/2026	
Long, Yasha S., MD	06/30/2020	Not required	12/31/2024	
Maryniuk, Jerome S., M.D.	07/30/2019	Not required	12/31/2017	
Meindl, Judi A., M.D.	03/30/2020	Not required	12/31/2021	
Patterson, Elizabeth, M.D.	05/30/2020	09/27/2019	12/31/2023	
Raffetto, Brian J., M.D.	05/30/2019	Not required	In process	Residency Completed 6/30/2017
Williamson, Timothy L., M.D.	04/30/2019	09/30/2019	Not ED Certified	Board Certified in Pediatrics
Thiel, Garret, MD	11/30/2019	Not required	In process	Residency Completed 6/30/2018

COUNTY OF VENTURA EMERGENCY MEDICAL SERVICES	HEALTH CARE AGENCY POLICIES AND PROCEDURES
Policy Title: Receiving Hospital Standards	Policy Number 420
APPROVED Administration: Steven L. Carroll, Paramedic	Date: September 1, 2018
APPROVED Medical Director: Daniel Shepherd, MD	Date: September 1, 2018
Origination Date: April 1, 1984 Date Revised: August 9, 2018 Date Last Reviewed: August 9, 2018 Review Date: August 31, 2021	Effective Date: September 1, 2018

I. PURPOSE: To define the criteria, which shall be met by an acute care hospital in Ventura County for Receiving Hospital (RH) designation.

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 RH , approved and designated by the Ventura County, shall:

1. Be licensed by the State of California as an acute care hospital.
2. Meet the requirements of the Health and Safety Code Sections 1250-1262 and Title 22, Sections 70411, 70413, 70415, 70417, 70419, 70649, 70651, 70653, 70655 and 70657 as applicable.
3. Be accredited by a CMS accrediting agency.
4. Operate an emergency department (ED) that is designated by the State Department of Health Services as a “Comprehensive Emergency Department,” “Basic Emergency Department” or a “Standby Emergency Department.”
5. Operate an Intensive Care Unit.
6. Have the following specialty services available at the hospital or appropriate referral hospital (at the discretion of the Emergency Department Physician. and consultant Physician.) within 30 minutes:

Cardiology	Anesthesiology	Neurosurgery
Orthopedic Surgery	General Surgery	General Medicine
Thoracic Surgery	Pediatrics	Obstetrics

7. Have operating room services available within 30 minutes.

8. Have the following services available within 15 minutes.

   X-ray   Laboratory   Respiratory Therapy

9. Evaluate all ambulance transported patients promptly, either by RH Physician, Private Physician or other qualified medical personnel designated by hospital policy.
10. Have the capability at all times to communicate with the ambulances and the Base Hospital (BH).
11. Designate a ED Medical Director who shall be a physician on the hospital staff, licensed in the State of California and have experience in emergency medical care. The Medical Director shall:
    a. Be regularly assigned to the ED.
    b. Have knowledge of VCEMS policies and procedures.
    c. Coordinate RH activities with BH, Prehospital Services Committee (PSC), and VCEMS policies and procedures.
    d. Attend, or have designee attend, PSC meetings.
    e. Provide ED staff education.
    f. Schedule medical staffing for the ED on a 24-hour basis.
12. Agree to provide, at a minimum, on a 24-hour basis, a physician and a registered nurse (RN) that meets the following criteria:
    a. All Emergency Department physicians shall:
       1) Be immediately available to the Emergency Department at all times.
       2) Be certified by the American Board of Emergency Medicine OR the American Osteopathic Board of Emergency Medicine OR be Board eligible OR have all of the following:
          a) Have and maintain current Advanced Cardiac Life Support (ACLS) certification.
          b. Have and maintain current Advanced Trauma Life Support (ATLS) certification.
          c) Complete at least 25 Category I CME hours per year with content applicable to Emergency Medicine.
    b. RH EDs shall be staffed by:
       1) Full-time staff: those physicians who practice emergency medicine 120 hours per month or more, and/or

2) Regular part-time staff: those physicians who see 90 patients or more per month in the practice of emergency medicine.
   a) Formula: Average monthly census of acute patients divided by 720 hours equals average number of patients per hour. This figure multiplied by average hours worked by physician in emergency medicine equals patients per physician per month.
   b) Physicians working in more than one hospital may total their hours.
   c) Acute patients exclude scheduled and return visits, physicals, and patients not seen by the ED Physician.
   d) During period of double coverage, the whole shall be met if one of the physicians meets the above standards.

c. All RH RNs shall:
   1) Be regular hospital staff assigned solely to the ED for that shift.
   2) Maintain current ACLS certification.

d. All other nursing and clerical personnel for the Emergency Department shall maintain current Basic Cardiac Life Support certification.

e. Sufficient licensed personnel shall be staffed to support the services offered.

13. Cooperate with and assist the PSC and EMS Medical Director in the collection of statistics for program evaluation.

14. Agree to maintain all prehospital data in a manner consistent with hospital data requirements and provide that the data be integrated with the patient's chart. Prehospital data shall include the Ventura County Electronic Patient Care Report (VCePCR), Paramedic Base Hospital communication form (from the BH), and documentation of a BH telephone communication with the RH.

15. Participate with the BH in evaluation of paramedics for reaccreditation.

16. Permit the use of the hospital helipad as an emergency rendezvous point if a State-approved helipad is maintained on hospital premises.

B. There shall be a written agreement between the RH and EMS indicating the commitment of hospital administration, medical staff, and emergency department staff to meet requirements for ALS program participation as specified by EMS policies and procedures.

C. EMS shall review its agreement with each RH at least every two years.

D. EMS may deny, suspend, or revoke the approval of a RH for failure to comply with any applicable policies, procedures, or regulations. Requests for review or appeal of such decisions shall be brought to the Board of Supervisors for appropriate action.

E. The EMS Medical Director may grant an exception to a portion of this policy upon substantiation of need by the PSC that, as defined in the regulations, compliance with the regulation would not be in the best interests of the persons served within the affected local area.

F. A hospital that applies to become a RH in Ventura County must meet Ventura County RH Criteria and agree to comply with Ventura County regulation.

1. Application:
   Eligible hospital shall submit a written request for RH approval to the VCEMS, documenting the compliance of the hospital with the Ventura County RH.
2. Approval:
   Program approval or denial shall be made in writing by EMS to the requesting RH within a reasonable period of time after receipt of the request for approval and all required documentation. This period shall not exceed three (3) months.

G. ALS RHs shall be reviewed every two years.

1. All RH shall receive notification of evaluation from the EMS.
2. All RH shall respond in writing regarding program compliance.
3. On-site visits for evaluative purposes may occur.
4. Any RH shall notify the EMS by telephone, followed by a letter within 48 hours, of changes in program compliance or performance.

H. Paramedics providing care for emergency patients with potentially serious medical conditions, and are within the catchment area of a hospital with a standby emergency department, shall make immediate base contact for destination determination. Examples of these patients would include, but are not limited to, patients with:

1. Patients with seizure of new onset, multiple seizures within a 24-hour period, or sustained alteration in level of consciousness
2. Chest pain or discomfort of known or suspected cardiac origin
3. Sustained respiratory distress not responsive to field treatment
4. Suspected pulmonary edema not responsive to field treatment
5. Potentially significant cardiac arrhythmias
6. Orthopedic emergencies having open fractures, or alterations of distal neurovascular status

7. Suspected spinal cord injury of new onset
8. Burns greater than 10% body surface area
9. Drowning or suspected barotrauma with any history of loss of consciousness, unstable vital signs, or respiratory problems
10. Criteria that meet stroke, STEMI, or trauma criteria for transport to a specialty care hospital

I. A RH with a standby emergency department only, offering “standby emergency medical service,” is considered to be an alternative receiving facility. Patients may be transported to a standby emergency department when the use of the facility is in the best interest of patient care.

1. Patients that require emergent stabilization at an emergency department may be transported to a standby emergency department if a basic emergency facility is not within a reasonable distance. These would include patients:
   a. In cardiac arrest with NO return of spontaneous circulation (ROSC) in the field
   b. With bleeding that cannot be controlled
   c. Without an effective airway
2. 3. During hours of peak traffic, the Base Hospital MICN should make destination determinations based on predicted travel time and patient condition. Patients who meet criteria for trauma, stroke, or STEMI in the absence of a condition that meets I.1. above, will be directed to the appropriate destination.
4. A RH with a standby emergency department shall report to Ventura County EMS Agency any change in status regarding its ability to provide care for emergency patients.

COUNTY OF VENTURA
EMERGENCY MEDICAL SERVICES

RECEIVING HOSPITAL
CRITERIA COMPLIANCE CHECKLIST

Receiving Hospital: ____________________ Date: _______________

				YES	NO
A.	Receiving Hospital (RH), approved and designated by the Ventura County , shall:				
	1.	Be licensed by the State of California as an acute care hospital.			
	2.	Meet the requirements of the Health and Safety Code Section 1250-1262 and Title 22, Sections 70411, 70413, 70415, 70417, 70419, 70649, 70651, 70653, 70655 and 70657 as applicable.			
	3.	Be accredited by a CMS accrediting agency			
	4.	Operate an Intensive Care Unit.			
	5.	Have the following specialty services available at the hospital or appropriate referral hospital (at the discretion of the Emergency Department (ED) Physician. and consultant Physician.) within 30 minutes:			
		•	Cardiology		
		•	Anesthesiology		
		•	Neurosurgery		
		•	Orthopedic Surgery		
		•	General Surgery		
		•	General Medicine		
		•	Thoracic Surgery		
		•	Pediatrics		
		•	Obstetrics		
	6.	Have operating room services available within 30 minutes.			
	7.	Have the following services available within 15 minutes.			
		•	X-Ray		
		•	Laboratory		
		•	Respiratory Therapy		
	8.	Evaluate all ambulance transported patients promptly, either by RH Physician, Private Physician or other qualified medical personnel designated by hospital policy.			
	9.	Have the capability at all times to communicate with the ambulances and the BH.			
	10.	Designate an Emergency Department Medical Director who shall be a physician on the hospital staff, licensed in the State of California and have experience in emergency medical care. The Medical Director shall:			
		a.	Be regularly assigned to the Emergency Department.		
		b.	Have knowledge of VC EMS policies and procedures.		

	YES	NO
c. Coordinate RH activities with Base Hospital, Prehospital Services Committee (PSC), and VCEMS policies and procedures.		
d. Attend or have designee attend PSC meetings.		
e. Provide Emergency Department staff education.		
f. Schedule medical staffing for the ED on a 24-hour basis.		
11. Agree to provide, at a minimum, on a 24-hour basis, a physician and a registered nurse that meets the following criteria:		
a. All Emergency Department physicians shall:		
1). Be immediately available to ED at all times.		
2) Be certified by the American Board of Emergency Medicine OR the American Osteopathic Board of Emergency Medicine OR be Board eligible OR have all of the following:		
a). Have and maintain current Advanced Cardiac Life Support (ACLS) certification.		
b) Have and maintain current Advanced Trauma Life Support (ATLS)certification.		
c) Complete at least 25 Category I CME hours per year with content applicable to Emergency Medicine.		
b. RH EDs shall be staffed by:		
1). Full-time staff: those physicians who practice emergency medicine 120 hours per month or more, and/or		
2) Regular part-time staff: those physicians who see 90 patients or more per month in the practice of emergency medicine.		
a) Formula: Average monthly census of acute patients divided by 720 hours equals average number of patients per hour. This figure multiplied by average hours worked by physician in emergency medicine equals patients per physician per month		
b) Physicians working in more than one hospital may total their hours		
c) Acute patients exclude scheduled and return visits, physicals, and patients not seen by the ED Physician		

	YES	NO
d) During period of double coverage, the whole shall be met if one of the physicians meets the above standards.)		
c. All RH RNs shall:		
1) Be regular hospital staff assigned solely to the ED for that shift.		
2) Maintain current ACLS certification.		
d. All other nursing and clerical personnel for the ED shall maintain current Basic Cardiac Life Support certification.		
e. Sufficient licensed personnel shall be utilized to support the services offered.		
12. Cooperate with and assist the PSC and EMS Medical Director in the collection of statistics for program evaluation.		
13. Agree to maintain all prehospital data in a manner consistent with hospital data requirements and provide that the data be integrated with the patient's chart. Prehospital data shall include the VCePCR, paramedic Base Hospital communication form (from the BH), and documentation of a BH telephone communication with the RH.		
14. Participate with the BH in evaluation of paramedics for reaccreditation.		
15. Permit the use of the hospital helipad as an emergency rendezvous point if a State-approved helipad is maintained on hospital premises.		
B. There shall be a written agreement between the RH and EMS indicating the commitment of hospital administration, medical staff, and emergency department staff to meet requirements for employment as specified by EMS policies and procedures.		

COUNTY OF VENTURA
EMERGENCY MEDICAL SERVICES

RECEIVING HOSPITAL PHYSICIAN
CRITERIA COMPLIANCE CHECKLIST

Physician Name: ____________________ Date: _______________

All Emergency Department physicians shall:	YES	NO
1. Be immediately available to the RH ED at all times.		
2. Be certified by the American Board of Emergency Medicine OR the American Osteopathic Board of Emergency Medicine OR be Board eligible OR have all of the following:		
a. Have and maintain current ACLS certification.		
b. Complete at least 25 Category I CME hours per year with content applicable to Emergency Medicine.		
c. Have and maintain current Advanced Trauma Life Support (ATLS) certification.		

The above named physician is:

1) Full-time staff: A physician who practices emergency medicine 120 hours per month or more, and/or		
2) Regular part-time staff: A physician who see 90 patients or more per month in the practice of emergency medicine (Average monthly census of acute patients divided by 720 hours equals average number of patients per hour. This figure multiplied by average hours worked by physician in emergency medicine equals patients per physician per month, Physicians working in more than one hospital may total their hours, Acute patients exclude scheduled and return visits, physicals, and patients not seen by the ED Physician)		

COUNTY OF VENTURA
EMERGENCY MEDICAL SERVICES

RECEIVING HOSPITAL
STANDBY EMERGENCY DEPARTMENT
ADDITIONAL CRITERIA COMPLIANCE
CHECKLIST

Receiving Hospital w/Standby ED:______________ Date: ________________

	EMS REVIEW	
The RH with standby ED has:	YES	NO
A. Medical staff, and the availability of the staff at various times to care for patients requiring emergency medical services.		
B. Ability of staff to care for the degree and severity of patient injuries or condition.		
C. Equipment and services available at the facility necessary to care for patients requiring emergency medical services and the severity of their injuries or condition.		
D. During the current 2-year evaluation period, has reported to Ventura County EMS Agency any change in status regarding its ability to provide care for emergency patients.		
E. Authorization by the Ventura County EMS Agency medical director to receive patients requiring emergency medical services, in order to provide for the best interests of patient care.		
COMMENTS		

VENTURA COUNTY EMS Agency

Stroke Critical Care System PLAN 2019

October 2019

Ventura County Emergency Medical Services Agency

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Section I Plan Overview

A. Introduction

Patients suffering from a stroke have the best chance of survival when they receive rapid assessment and transport to a receiving hospital which have specialized equipment and personnel to treat patients with strokes. The Ventura County Stroke System began in 2012 and currently has six Primary Stroke Centers (PSC) and one Comprehensive Stroke Center (CSC). Four of the PSCs have been designated by VCEMS as Acute Stroke Centers (ASC), and one designated as Thrombectomy Capable Acute Stroke Centers (TCASC). Our CSC was designated as a TCASC as well. Stroke system performance is based on standards developed by the American Heart Association, the California Department of Public Health, and the California Code of Regulations, Division 9, Chapter 7.2.

B. Purpose

The Stroke Critical Care System Plan for Ventura County is, first and foremost, a patient advocacy document. Its purpose is to provide a framework for the establishment of a comprehensive Stroke program for the County that addresses the needs of the patient suffering from a stroke. The plan acknowledges the inherent challenges of the urban, semi-rural, and rural healthcare environment and provides an organized process to ensure quality Stroke services while remaining sensitive to the intrinsic resource and financial constraints of the system participants. This plan recognizes that a partnership of organizations, institutions and individuals form the nucleus of a quality Stroke system. It is only through this partnership and adherence to quality Stroke care standards that the goals of this plan will be achieved.

This Stroke Plan designs a countywide Stroke system in order to:

1. Identify stroke patients and Emergent Large Vessel Occlusion (ELVO) patients.
2. Identify and measure preventable death and disability from a stroke.
3. Assure timely, optimal stroke services in a cost-efficient manner through close coordination of prehospital, hospital and rehabilitation services.
4. Match patient medical needs with resources of the ASC or TCASC.

C. Overview

An organized, systematic approach to stroke patients results in a reduction in patient mortality and morbidity.

The intent of this plan is to formalize Ventura County's stroke care system by defining the roles and responsibilities of the ASCs and TCASCs in accordance with the California

State Regulations. The system is based on an inclusive model, encouraging all hospitals to participate at some level, dependent upon their resources. Using this approach makes the best use of available resources, matches patient needs to level of care, engages all acute care facilities in the management of stroke patients.

The facility standards contained in this document are based upon the California Code of Regulations, Division 9, Chapter 7.2, Stroke Critical Care System. Interfacility transfer agreements have been established to facilitate the rapid and appropriate transfer of patients both within and outside of the County as their medical care needs dictate.

The Ventura County EMS Agency (VC EMS) rigorously monitors the system established by this plan through review of Stroke Registry data, outcome studies and site visits. The planning of care for these patients is coordinated with all other components of the EMS system. A Continuous Quality Improvement (CQI) model has been instituted for system review and a comprehensive management information system has been implemented to ensure the seamless integration of dispatch, prehospital, hospital and registry information.

This plan defines:

1. Operation of a countywide, inclusive Stroke Critical Care System.
2. Prehospital stroke treatment and transportation protocols, which recognize the urban, semi-rural and rural nature of the County.
3. Aeromedical response and transportation requirements.
4. Operational requirements for ASCs and TCASCs.
5. Designation and contract with ASCs and TCASCs to provide stroke care services.
6. A clear line of authority for the countywide stroke system administration.
7. Continuous Quality Improvement program, including a stroke registry.

This Stroke Critical Care System Plan includes 4 ASCs, 2 TCASCs, and 1 PSC.

The Base Hospitals provide on-line communications and medical control to the field personnel for stroke patients. All prehospital care personnel are trained on appropriate stroke treatment and transportation protocols.

D. Stroke Plan Philosophy

The goal for Ventura County's Stroke Plan is to assure high quality stroke care to all residents of, and visitors to, the County. To this end, ACSs and TCASCs are designated to optimize both care and access. A priority consideration in this plan is to provide high quality stroke services to the population served while remaining cognizant of the available resources. The hospitals will be integrated into a total system of care that includes prevention programs as well as comprehensive treatment, prehospital through rehabilitation and follow-up. Air medical dispatch procedures will be evaluated and revised as needed. The stroke system of care is monitored by VC EMS and the Stroke Committee.

The philosophy of the Ventura County Stroke Plan calls for the following elements:

1. **Acute Stroke Center**
   Two hospitals in the West County, one hospital in the East County and one hospital in the Central County.

2. **Thrombectomy Capable Acute Stroke Center**
   One hospital in the Central County, and one hospital in the East County

3. **Inclusive**
   Participation of all hospitals are encouraged countywide, with a demonstrated and documented commitment to quality care.

4. **Continuous Quality Improvement/Outcome**
   Orientation towards a continuous quality improvement process and an emphasis on patient outcomes is the primary focus of program evaluation.

5. **Prevention/Education**
   Several different classes and stroke symposiums are offered by our ACSs and TCASCs. We recognize World Stroke Day each year and education in the community about signs and symptoms of a stroke (BE FAST).

6. **Continuum of Services**
   The Stroke Critical Care System program is an integrated system comprised of pre-hospital, hospital and rehabilitative care.

E. Legal Basis

VC EMS, under the authority of the California Code of Regulations (CCR), Title 22, Division 9, Chapter 7.2, develops this Stroke Plan. Responsibility for the plan's development, implementation and oversight rests with VC EMS.

F. Plan Approach

ACS and TCASC Designation in Ventura County are based on standards developed by the American Heart Association, the California Department of Public Health, and the California Code of Regulations, Division 9, Chapter 7.2.

Our neighboring counties, Los Angeles and Santa Barbara, have designated PSCs and Comprehensive Stroke Centers (CSC). VC EMS has coordinated with EMS agencies located within proximity, to ensure the integration of adjacent stroke systems for efficient care of stroke patients.

G. Air Transport

The Ventura County Sheriff Aviation Unit is the air rescue provider for the County. This unit is staffed 7 days a week, nine hours a day. After 5 pm, the pilot and crew must be recalled and respond to an emergency. Most calls for service occur during staffed hours of the Sheriff Aviation Unit. Air Ambulance services may be requested from Cal Star located in Santa Maria or Mercy Air in Rialto. Both have potential flight times of over 30 minutes. Mutual Aid Air Rescue resources can also be utilized by Los Angeles County and city fire departments which staff their units 24 hours a day and have ETA's of less than 30 minutes to most areas of the County.

Section II Overview of Ventura County

A. Geography

The County of Ventura is in Southern California and encompasses an area of 2,208 square miles (1,845 land, and 363 water). The boundary of the County extends from the Sierra Madre and San Rafael mountain ranges and a small portion of Kern County on the Northwest, from Santa Barbara County on the Northwest, Los Angeles County on the Southeast and the Pacific Ocean on the Southwest. The size and industrial diversity of the Ventura County area presents special problems in the allocation and availability of healthcare resources. Mountainous terrain, expanses of agricultural land, and widely dispersed rural communities intensify this problem by limiting accessibility to health care.

Water plays a vital role in the growth and development of this area. Ventura County is a water-deficient area with demand greater than the local supply. Acquisition, quality, and conservation of water are paramount to the area's development. Local water supplies come from runoff stored in reservoirs or from ground water. Water is the main recreational feature in Ventura County, attracting tourists and the fishing industry.

The mountains bordering the eastern section of the County join with humid conditions to create dense fog during the summer months at the higher elevations. This dense fog can produce zero visibility and result in a high crash rate for the area and hinders the accessibility to healthcare services, especially for rural residents.

B. Transportation

The automobile is the predominate form of transportation in Ventura County. Two major arteries, Highways 101 and 118, transact the area from south to north along the edge of the Pacific Ocean. There are three other smaller arteries, Highway 33, Highway 23, and Highway 126. There is a network of County and city roads which provide access between the incorporated cities and the agricultural lands and rural communities of the County.

Scheduled commercial and private air travel is provided at the Oxnard Airport. There are also scheduled charter services and private air travel from Camarillo Airport and private services available at the Santa Paula Airport. Passenger rail service is available via Amtrak and Metrolink.

Community Memorial Hospital, Ventura County Medical Center, St. John's Regional Medical Center (Oxnard), Los Robles Hospital and Medical Center, and Simi Valley Hospital have FAA approved helipads. St. John's Pleasant Valley Hospital and Ojai Community Hospital do not have helipads, although a helicopter could land near the hospitals if necessary. Santa Paula Hospital has a helipad, however it is not FAA approved.

C. Demographics

In 2018, the population was 850,967. Approximately 43% are Hispanic.

Although Ventura is known as a highly desirable place to live for its physical beauty, the median household income is $59,379. The demographics of the County indicate that there are many concentrated low-income areas. Census reports show that 9.3% of the County residents live at or below the poverty level (compared with 13.2% of the State population).

In 2018 the population over 65 years of age in Ventura County was 15.6%, which has increased from 10.9% in 2010. As the population of Ventura County continues to age, there will be an increased demand for EMS services in the over 65 age group.

D. Epidemiology

Data from the Vital Records Department of Public Health show that the major causes of death in Ventura County are from cancer and heart disease, which is consistent with the trend throughout California and the United States. The following is a summary from the Automatic Vital Statistics System for Ventura County of the top four causes of death for years 2015-2017.

1. Cancer
2. Heart Disease
3. Alzheimer's Disease
4. Cerebrovascular Disease (Stroke)

E. EMS Dispatch

EMS dispatching for Ventura County is provide for and coordinated through the Ventura County Fire Communications Center.

F. Emergency Medical Care Resources

1. Prehospital

Private and public EMS providers cover the County. Advanced Life Support (ALS) ambulance response is supported by simultaneous dispatch of Advanced Life Support (ALS) and/or Basic Life Support (BLS) first responder fire department personnel.

Table 1. Advanced Life Support Providers

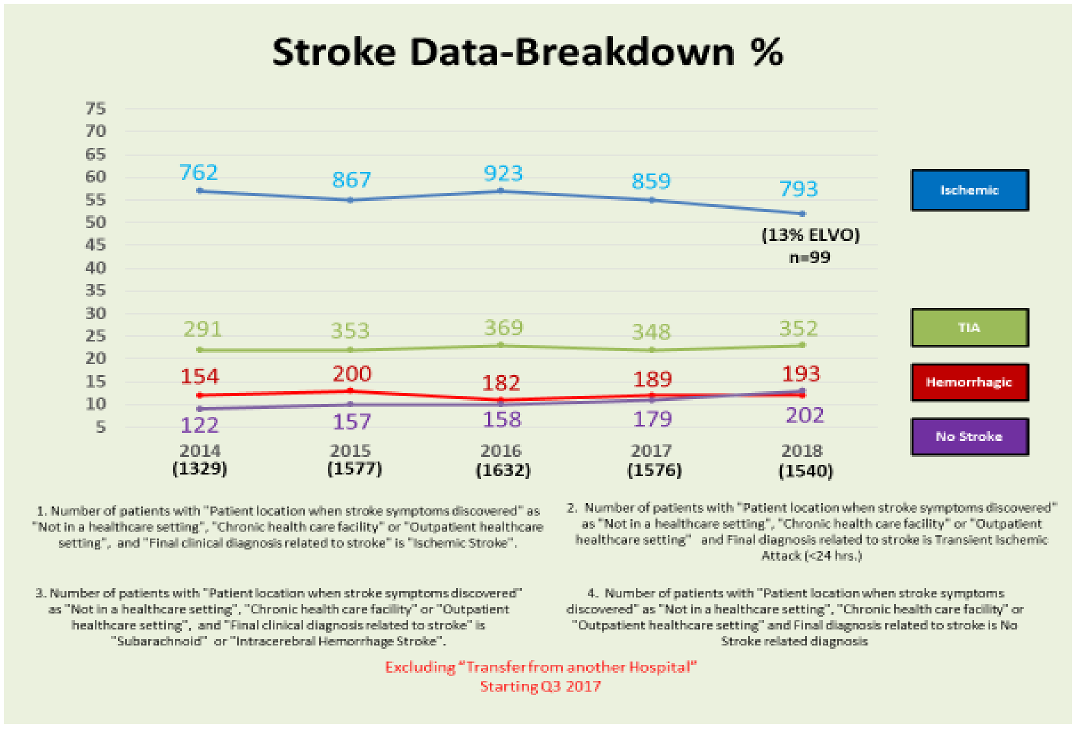
Name/Address	No of Units	Trans-port Units	Service Area	EMS Responses 2016		EMS Responses 2017		EMS Responses 2018	
ALS				Responses	Transports	Responses	Transports	Responses	Transports
American Medical Response	19	19	2,3,4,5,7	37,872	28,794	39,238	29,967	38,047	28,909
Gold Coast Ambulance	6	6	6	15,014	11,357	15,114	11,677	16,163	12,241
Lifeline Medical Transport	3	3	1	2,046	1,483	2,499	1,609	2,420	1,523
Ventura County Sheriff Air Unit	1	1	All	125	40	86	32	74	30
Fillmore Fire Department	1	0	Fil City	1005	0	1,155	0	1,071	0
Ventura City Fire Dept.	7	0	Vta City	11,687	0	11,694	0	10,995	0
Ventura County Fire Dept.	14	0	Vta Cnty	29,168	0	30,347	0	31,030	0
Oxnard Fire Department	1	0	Oxnard City	3893	0	14,820	0	15,554	0
County-Wide Total	**32**	**24**		**60,377**	**41,674**	**65,328**	**43,285**	**65,173**	**42,703**

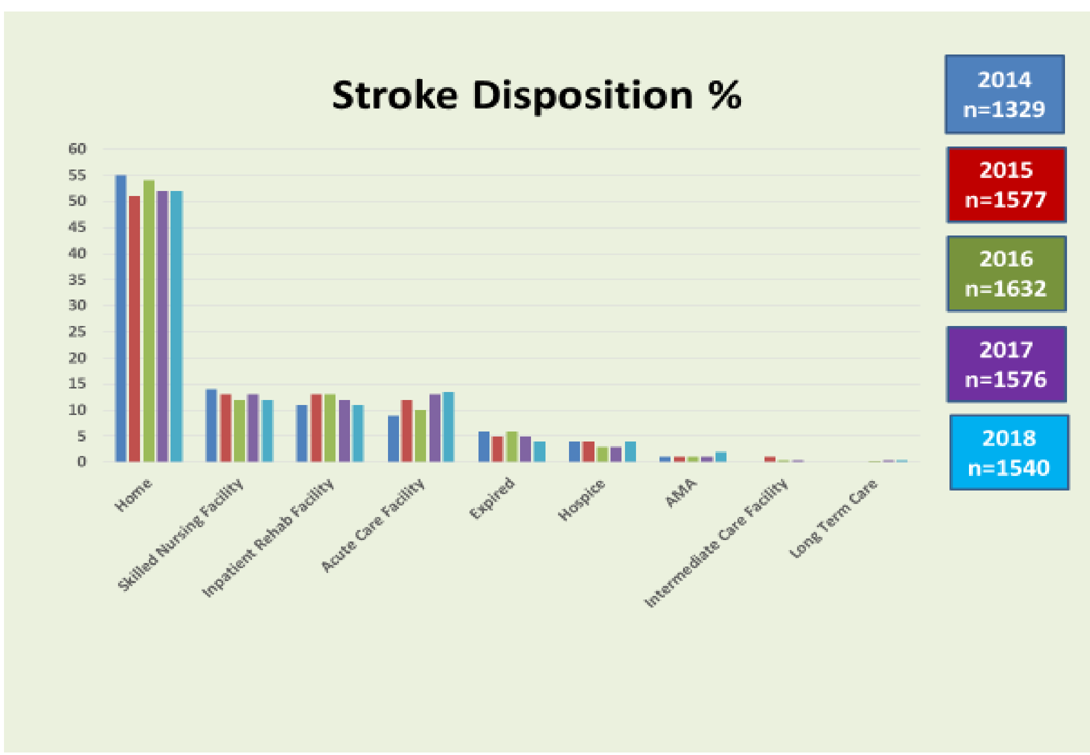
Each of the acute care facilities in the County acts as a Receiving Hospital (RH) for the prehospital providers. Base Station services are provided by four hospitals via a contract between the facility and VC EMS. Each Base Hospital (BH) is required to have a Medical Director and a Prehospital Care Coordinator (PCC).

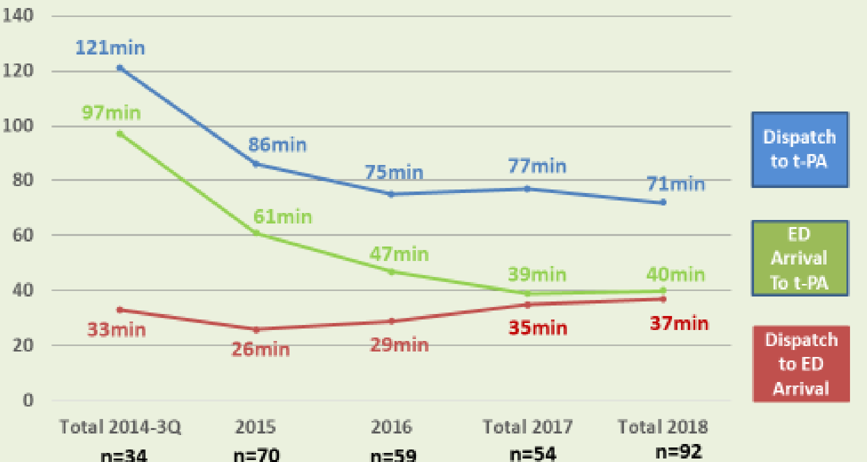
Table 2. Ventura County Hospitals

Name/Address	No. of Beds	No of ICU Beds	No of PED. Beds	Base Hospital	Receive Hospital	NUMBER OF ER Visits 2016	2017	2018	SRC or SRH	Expires
Community Memorial Loma Vista & Brent Ventura, CA 93003	254	28	8	No	Yes	48,434	49,958	49,742	ACS	3/31/20
Los Robles Hospital 215 W. Janss Road Thousand Oaks, CA 91360	382	30	10	Yes	Yes	50,541	51,567	51,659	CSC/ TCASC	1/31/20
Adventist Health Simi Valley 2975 N. Sycamore Drive Simi Valley, CA 93065	144	24	0	Yes	Yes	36,440	37,155	36,369	ASC	1/31/20
St. John's Regional Medical Center 1600 N. Rose Avenue Oxnard, CA 93030	230	20	9	Yes	Yes	57,734	57,961	56,400	TCASC	1/31/20
Ojai Valley Hospital 1306 Maricopa Highway Ojai, CA 93023	25	4	0	No	Yes	9,129	9,328	8,762	N/A	N/A
Santa Paula Hospital 825 N. 10th Street Santa Paula, CA 93060	49	6	0	No	Yes	15,736	15,799	15,353	PCS	8/30/21
St. Johns Pleasant Valley Hospital 2309 Antonio Avenue Camarillo, CA 93010	50	8	0	No	Yes	24,285	24,923	24,683	ASC	1/31/20
Ventura County Medical Center 3291 Loma Vista Road Ventura, CA 93003	150	12	10	Yes	Yes	38,490	38,945	40,202	ASC	8/30/21

Table 3: Ventura County Stroke Core Measures



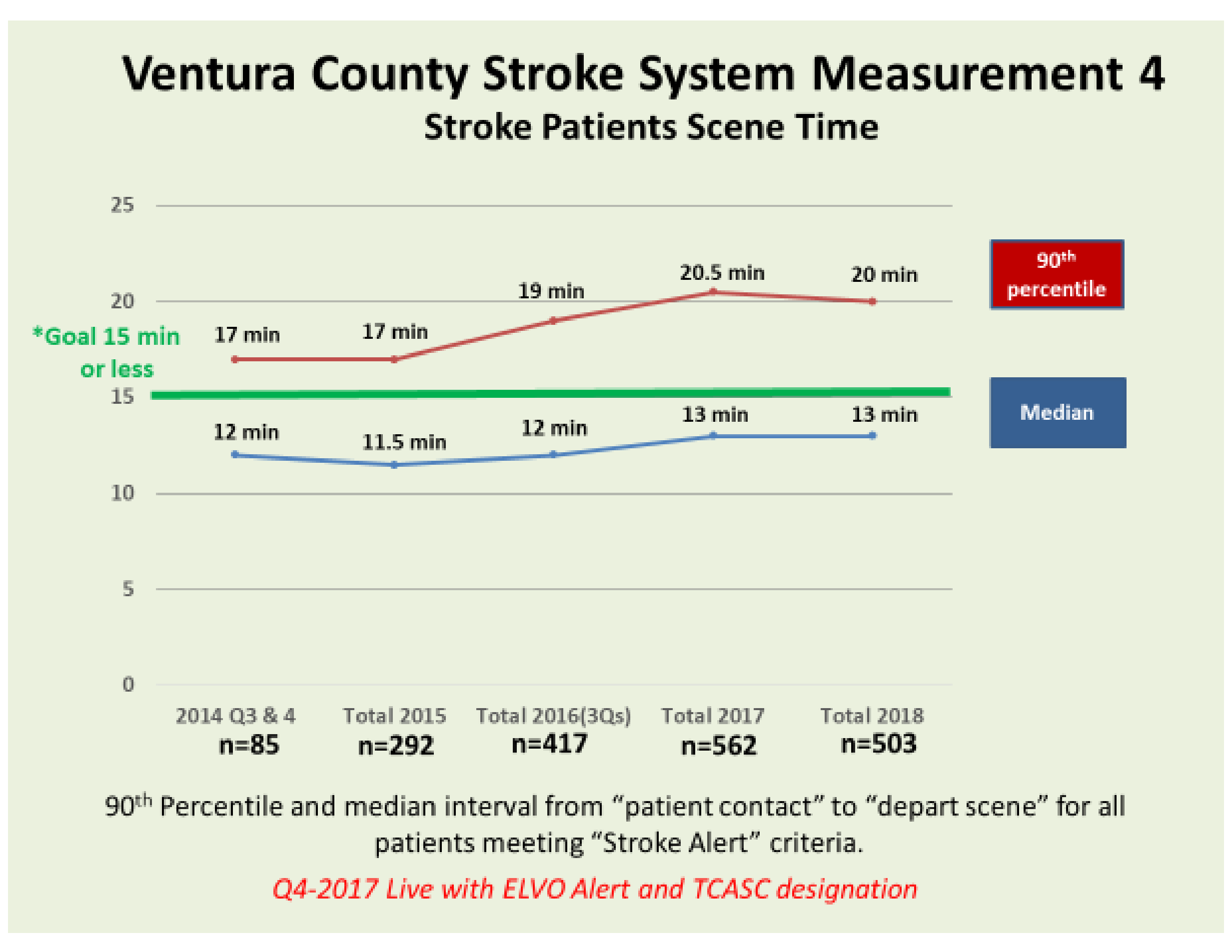




Using ePCR number to match: Total of Ischemic patients who received "IV t-PA initiated at this hospital"= "Yes" and "Opt. Field #3, Code Stroke Activated="yes", the median interval between "Dispatch Call Received" Date/Time" and "Date/Time IV t-PA initiated", and "Documented Delay" is no or blank.

Q4-2017 Live with ELVO Alert and TCASC designation

- 260 ELVO alerts (2018)
  - 71 Confirmed ELVOs
  - 157 false positives
  - 14 false negatives (over 6 hrs/unable to assess)
  - 32 hemorrhagic strokes (considered TP)



Section III System Design

A. Lead Agency

California statute assigns the responsibility to adopt and implement Stroke regulations, designate Stroke Receiving Centers, establish data collection systems and monitor Stroke care performance to the local EMS Agency. The lead agency for EMS and the Stroke care system in Ventura County is the Ventura County EMS Agency. VC EMS staff and EMS Medical Director will be responsible for administering the plan and coordinating activities of the Stroke care system and integrating this system with all components of the EMS system.

As the lead agency for Ventura County's EMS and Stroke care system, VC EMS is responsible for planning, implementing and managing the Stroke care system. These responsibilities include but are not limited to:

a. Assessing needs and resource requirements of the County.
b. Assigning roles to system participants.
c. Monitoring the Stroke registry data system.
d. Establishing a prehospital data collection system that is capable of interfacing with the Stroke Registry.
e. Monitoring the system to determine compliance with appropriate law, regulations, policies, procedures and contracts.
f. Evaluating the impact of the system and revising the system design as needed.

To fulfill these responsibilities, VC EMS has hired staff to do the monitoring and oversight of the Stroke care system. VC EMS will oversee the Continuous Quality Improvement processes.

B. Stroke Center Fees

VC EMS has developed a fee structure that covers the direct cost of the designation process and to effectively monitor and evaluate the Stroke care system.

C. Stroke Committee

The Stroke Committee was created as a function of the planning process and continues as a part of this plan. It provides for countywide input of knowledgeable individuals and organizations into the discussion and resolution of Stroke system issues. It also fosters communication between VC EMS and various groups with an interest in the County's Stroke system. This committee meets quarterly.

The functions of the Stroke Committee are:

a. Conduct assessment of the Stroke system needs and resources in the County.
b. Provide overall direction and coordination to for policy making and program oversite.
c. Analyze the results of data collection and the monitoring system.
d. Present Case Studies for review and quality improvement.

D. Medical Control

Medical control and direction of the Stroke system is an essential ingredient of the Ventura County Stroke Plan and is the overall responsibility of the local EMS Medical Director. Medical control includes medical supervision of prehospital care services and the provision of medical supervision of the overall Stroke System Plan and ongoing monitoring.

Each of the acute care facilities in the County acts as a Receiving Hospital (RH) for the prehospital providers. Base Hospital (BH) services are provided via contract between four hospitals and VC EMS. Each BH is required to have a Medical Director and a PCC.

Section IV System Operational Components

A set of policies have been developed which directs the Stroke system to provide a clear understanding of the structure of the system and manner in which the system utilizes the resources available to it.

A. Prehospital System

Prehospital personnel in Ventura County are trained in treatment and triage protocols. The Stroke system policies include the following: Stroke patient care coordination within the Stroke system; early notification of impending arrival at an ASC or a TCASC; coordination with all healthcare organizations to facilitate transfer of patients; availability of a Stroke team; criteria for activation of a Stroke team; mechanism for prompt availability of specialists; quality improvement and system evaluation; and criteria for Stroke triage, including destination.

B. Hospital System

1. Current System

There are 4 ASCs, 2 TCASCs, and 1 PSC.

2. Mutual Aid and Relation to Other Stroke Systems

VC EMS works with the neighboring EMS Agencies in Santa Barbara County and Los Angeles County for mutual aid to ensure patient needs and inter-system needs are met.

3. Patient Flow

Patient destination decisions will be made on a patient-specific basis. This decision will consider distance, weather, traffic and other factors that may affect transport time.

(a) Prehospital Transportation

For patients who meet Stroke triage criteria, the prehospital care team will determine appropriate destination and whether ground or air transport is used. This will require consideration of ground transport time, air transport time (including response time if the helicopter is not on-scene), weather, traffic and other factors.

Ground transport times for the majority of the County is less than 20 minutes. In areas with prolonged transport times, such as the far northern County and portions of the Santa Clara River Valley, air resources are utilized as appropriate.

Paramedics are trained to evaluate patients using the Cincinnati Prehospital Stroke Scale (CPSS) and provide early notification by calling in a “stroke alert”. In, 2016 we developed a pilot study in the east end of our county to screen for ELVO type stroke patients. Once identified, using a prehospital screening tool called the Ventura ELVO Score (VES), the patient was transported to our CSC. Based on this study, in October of 2017, we introduced county wide a ***prehospital diversion*** policy of suspected ELVO type stroke patients. This addition to our stroke triage system is designed to preferentially divert patients to a facility capable of performing mechanical thrombectomy. Paramedics perform a two-part screen: First, they screen for stroke using the (CPSS). Second, patients who are CPSS positive are screened for an ELVO using the VES. Patients who screen positive for both CPSS and VES are transported directly as an “ELVO Alert” to one of our TCACS.

(b) Interfacility Transfers

Acute Stroke Centers (ASC) Primary Stroke Center (PSC) and Thrombectomy Capable Acute Stroke Centers (TCASC) have developed transfer procedure criteria agreements based on their capabilities and resources. Patients who require treatment not available at the receiving hospital, will be transferred expeditiously to the appropriate facility. This may include out-of-county facilities. All transfer agreements must comply with Joint Commission standards and California State regulations.

(c) Saturation Levels

If the situation arises when the Cath lab is unavailable for ELVO patients, CT scanner is down, or no neurologists are available, the facility may go on the appropriate diversion via ReddiNet.

Section V System Evaluation

A. Data Collection

Currently VC EMS is using Get With The Guidelines (GWTG) Registry for hospitals. Data elements from the Stroke registry are reviewed and maintained by VC EMS for overall monitoring of the system. Specific patient and physician identifiers are stripped from the data to assure confidentiality. GWTG contains the recommended minimum data as set forth by the American Heart Association and The Joint Commission and incorporates details from arrival through discharge. All prehospital ALS providers utilize a standardized paramedic care report in Image Trend. VC EMS collects data electronically from all ALS and BLS service providers through Image Trend and reports State Core Measures related to Stroke care using CHEMSIS.
VC EMS is accountable for regular ongoing analysis and interpretation of the Stroke data. The Agency provides ongoing feedback through regular reporting and presents benchmarking goals on data elements at the Stroke Committee meetings.

The periodic performance evaluation of the Stroke care system includes, but is not limited to, a review of the following:

I. System design

2. Adequacy of out-of hospital care, at least in so far as can be determined by:
   a. Out-of-hospital time, including:
      (l) On scene time
      (2) Accuracy of Stroke and ELVO Alert activation
      (3) Appropriateness of out of hospital care, including type and amount of intervention
      (4) Dispatch to t-PA (2018 median time was 71 min)
      (4) Dispatch to brain image reported (2018 median time was 56 min)
   b. Appropriateness of receiving hospital selection

3. Verification that designated ACS and TCASC are fulfilling their Stroke care system responsibilities.

4. Hospitals, including:
   a. Stroke activations and specialist notifications
   b. Door to t-PA % within 60 min and within 45 min
   c. Door to CT scanner (2018 median time was 10 min for EMS and 17 min for POV)
   d. Door to reperfusion time for thrombectomy (2018 median time was 92 minutes)
   e. Patient transfers from ASC to TCASC with regard to their appropriateness and patient outcome
   f. ASC door to discharge time within 90 minutes for transfers to TCASC for thrombectomy procedure.

VC EMS currently monitors Stroke cases and patient outcomes through the Stroke Registry and presents this data on a regular basis to the Stroke Committee. VC EMS and the Stroke Committee have the responsibility to review Stroke cases with patient outcomes and to revise Stroke Policies and procedures as necessary for progressive improvement of Stroke care.

Section VI Appendices

A. Summary of Related Stroke Policies

1. **VC EMS Policy 107: Ventura County Stroke and STEMI Committees**
   Defines the purpose and voting rights of these committees.

2. **VC EMS Policy 402: Patient Diversion/Emergency Department Closures**
   Defines procedure in which a hospital may divert patients away from their emergency department.

3. **VC EMS Policy 420: Receiving Hospital Standards**
   Defines criteria which shall be met by an acute care hospital in Ventura County for Receiving Hospital (RH) designation.

4. **VC EMS Policy 450: Acute Stroke Center (ASC) Standards**
   Defines criteria for designation as an Acute Stroke Center in Ventura County.

5. **VC EMS Policy 451: Stroke System Triage and Destination**
   Outlines the process of pre-hospital triage and transport of suspected acute stroke patients to facilities designated as an Acute Stroke Center (ASC) or a Thrombectomy Capable Acute Stroke Center (TCASC).

6. **VC EMS Policy 452: Thrombectomy Capable Acute Stroke Center (TCASC) Standards**
   Defines criteria for designation as a Thrombectomy Capable Acute Stroke Center in Ventura County.

7. **VC EMS POLICY 460: Guidelines for Interfacility Transfer of Emergency Department Acute Stroke Patients**
   Defines the transfer process of emergency department patients with an acute stroke or ELVO needing a higher level of care.

8. **VC EMS POLICY 705.26: Suspected Stroke**
   Defines protocols and to notify base hospital or TCASC with 10 minutes of identifying a Stroke Alert or ELVO Alert patient

Appendix A

<table>
<tr><td colspan="2">COUNTY OF VENTURA
HEALTH CARE AGENCY</td><td>EMERGENCY MEDICAL SERVICES
POLICIES AND PROCEDURES</td></tr>
<tr><td colspan="2">Policy Title:
Ventura County Stroke and STEMI Committees</td><td>Policy Number
107</td></tr>
<tr><td colspan="2">APPROVED:
Administration: Steve L. Carroll, Paramedic</td><td>Date: December 1, 2019</td></tr>
<tr><td colspan="2">APPROVED:
Medical Director: Daniel Shepherd, M.D.</td><td>Date: December 1, 2019</td></tr>
<tr><td colspan="3">Origination Date: August 9, 2018
Date Revised: August 9, 2018
Date Last Reviewed: October 10, 2019
Review Date: October 31, 2023
Effective Date: December 1, 2019</td></tr>
</table>

I. Committee Name

The name of these committees shall be the Ventura County (VC) Stroke Committee and the VC STEMI Committee.

II. Committee Purpose

The purpose of these committees shall be to provide input to the VC Emergency Medical Services (EMS) Medical Director and VC EMS administration on matters pertaining to the VC Stroke Specialty System and the VC STEMI Specialty System.

III. Membership

A. Voting Membership

Voting membership in the committee shall be composed of 2 representatives (see chart below). Alternatives will be considered on a case by case basis.

Type of Organization	Member	Member
Acute Stroke Centers (ASC)	Stroke Coordinator	Physician
Non-ASC receiving centers	ED Manager or PCC	Physician
STEMI Receiving Centers	STEMI Coordinator	Physician
STEMI Referral Hospitals	ED Manager or PCC	Physician
Fire	Clinical manager or QI director	Senior Administrator or Medical Director
Ambulance Companies	Clinical manager or QI manager	Senior Administrator or Medical Director
VCEMSA	Administrator	Medical Director

B. Non-voting Membership

Non-voting members of the committee shall be composed of stakeholders from local agencies.

C. Membership Responsibilities

Representatives to the Stroke Committee and STEMI Committee represent the views of their agency. Representatives should ensure that agenda items have been discussed/reviewed by their agency prior to the meeting.

D. Voting Rights

Designated voting members shall have equal voting rights.

E. Attendance

1. Members shall remain as active voting members by attending 75% (Stroke) and 66% (STEMI) of the meetings in a (calendar) year. If attendance falls below these percentages, the organization administrator will be notified, and the member may lose the right to vote.

   (a) Members may have a single designated alternate attend in their place, no more than two times (Stroke) and one time (STEMI) per calendar year.

   (b) Agencies may designate one representative to be able to vote for both representatives, no more than two times (Stroke) and one time (STEMI) per calendar year.

2. The member whose attendance falls below these percentages, may regain voting status by attending two consecutive meetings.

3. If meeting dates are changed or cancelled, members will not be penalized for not attending.

IV. Officers

A. The chairperson of the Stroke Committee and the STEMI Committee is the VCEMSA Medical Director. The chairperson shall perform the duties prescribed by the guidelines outlined in this policy.

V. Meetings

A. Regular Meetings

The Stroke Committee will meet quarterly, and the STEMI Committee will meet once every 4 months. VCEMS will prepare and distribute the meeting agenda no later than one week prior to a scheduled meeting.

B. Special Meetings

Special meetings may be called by the VC EMS Medical Director, VC EMS Administrator or Public Health Director. Except in cases of emergency, seven (7) days' notice shall be given.

C. Quorum

The presence a simple majority (1/2 of committee membership plus 1) of voting members shall constitute a quorum. The presence of a quorum at the beginning of the meeting

shall allow the committee to continue to do business until adjournment, regardless of the number of members who leave during the meeting.

VI. Task Forces and Ad-hoc Committees

The VC EMS Medical Director (committee chair), VC EMS Administrator, or Public Health Director may appoint task forces or ad-hoc committees to make recommendations to the Stroke or STEMI Committee on particular issues. The person appointing the task force or ad-hoc committee will name the chair. A task force or ad-hoc committee shall be composed of at least three (3) members and no more than seven (7) individuals. Persons other than voting members may be appointed to task forces or ad-hoc committees.

VII. Calendar Year

The Stroke and STEMI Committee will operate on a calendar year

VIII. Parliamentary Authority

The rules contained in the current edition of Robert's Rules of Order, newly revised, shall govern the organization in all cases to which they are applicable and in which they are not inconsistent with these guidelines, and any special rules of order the Stroke Committee may adopt.

IX. Submission of Agenda Items

Agenda items shall be received by the Ventura County EMS Office 14 days before the meeting it is to be presented. Items may be submitted by US mail, fax or e-mail and must include the following information:

A. Subject

B. Reason for request

C. Description/Justification

D. Supporting medical information/other research as applicable

E. List of affected VC EMS policies, if a requested policy change

F. Agenda Category:

1. Operational

2. Medical

Appendix B

<table>
<tr><td colspan="2">COUNTY OF VENTURA
HEALTH CARE AGENCY</td><td>EMERGENCY MEDICAL SERVICES
POLICIES AND PROCEDURES</td></tr>
<tr><td colspan="2">Policy Title
Patient Diversion/Emergency Department Closures</td><td>Policy Number:
402</td></tr>
<tr><td>APPROVED:
Administration:</td><td>Steven L. Carroll, Paramedic</td><td>Date: December 1, 2019</td></tr>
<tr><td>APPROVED:
Medical Director:</td><td>Daniel Shepherd, MD</td><td>Date: December 1, 2019</td></tr>
<tr><td>Origination Date:
Revised Date:
Date Last Reviewed:
Review Date:</td><td>January 1990
October 10, 2019
October 10, 2019
October 31, 2022</td><td>Effective Date: December 1, 2019</td></tr>
</table>

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".

IV. 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.

6. STEMI Receiving Center (SRC) Closed

   Hospital is unable to accept a "STEMI Alert" patient or an "ELVO Alert" patient due to unavailability of their Cath lab or Cath lab staff. ROSC patients will not be diverted.

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.

Appendix C

COUNTY OF VENTURA EMERGENCY MEDICAL SERVICES	HEALTH CARE AGENCY POLICIES AND PROCEDURES
Policy Title: Receiving Hospital Standards	Policy Number 420
APPROVED Administration: Steven L. Carroll, Paramedic	Date: September 1, 2018
APPROVED Medical Director: Daniel Shepherd, MD	Date: September 1, 2018
Origination Date: April 1, 1984 Date Revised: August 9, 2018 Date Last Reviewed: August 9, 2018 Review Date: August 31, 2021	Effective Date: September 1, 2018

I. PURPOSE: To define the criteria, which shall be met by an acute care hospital in Ventura County for Receiving Hospital (RH) designation.

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 RH , approved and designated by the Ventura County, shall:

1. Be licensed by the State of California as an acute care hospital.
2. Meet the requirements of the Health and Safety Code Sections 1250-1262 and Title 22, Sections 70411, 70413, 70415, 70417, 70419, 70649, 70651, 70653, 70655 and 70657 as applicable.
3. Be accredited by a CMS accrediting agency.
4. Operate an emergency department (ED) that is designated by the State Department of Health Services as a “Comprehensive Emergency Department,” “Basic Emergency Department” or a “Standby Emergency Department.”
5. Operate an Intensive Care Unit.
6. Have the following specialty services available at the hospital or appropriate referral hospital (at the discretion of the Emergency Department Physician. and consultant Physician.) within 30 minutes:

Cardiology	Anesthesiology	Neurosurgery
Orthopedic Surgery	General Surgery	General Medicine
Thoracic Surgery	Pediatrics	Obstetrics

7. Have operating room services available within 30 minutes.
8. Have the following services available within 15 minutes.
   X-ray Laboratory Respiratory Therapy
9. Evaluate all ambulance transported patients promptly, either by RH Physician, Private Physician or other qualified medical personnel designated by hospital policy.
10. Have the capability at all times to communicate with the ambulances and the Base Hospital (BH).
11. Designate a ED Medical Director who shall be a physician on the hospital staff, licensed in the State of California and have experience in emergency medical care. The Medical Director shall:
    a. Be regularly assigned to the ED.
    b. Have knowledge of VCEMS policies and procedures.
    c. Coordinate RH activities with BH, Prehospital Services Committee (PSC), and VCEMS policies and procedures.
    d. Attend, or have designee attend, PSC meetings.
    e. Provide ED staff education.
    f. Schedule medical staffing for the ED on a 24-hour basis.
12. Agree to provide, at a minimum, on a 24-hour basis, a physician and a registered nurse (RN) that meets the following criteria:
    a. All Emergency Department physicians shall:
       1) Be immediately available to the Emergency Department at all times.
       2) Be certified by the American Board of Emergency Medicine OR the American Osteopathic Board of Emergency Medicine OR be Board eligible OR have all of the following:
          a) Have and maintain current Advanced Cardiac Life Support (ACLS) certification.
          b. Have and maintain current Advanced Trauma Life Support (ATLS) certification.
          c) Complete at least 25 Category I CME hours per year with content applicable to Emergency Medicine.
    b. RH EDs shall be staffed by:
       1) Full-time staff: those physicians who practice emergency medicine 120 hours per month or more, and/or

2) Regular part-time staff: those physicians who see 90 patients or more per month in the practice of emergency medicine.
   a) Formula: Average monthly census of acute patients divided by 720 hours equals average number of patients per hour. This figure multiplied by average hours worked by physician in emergency medicine equals patients per physician per month.
   b) Physicians working in more than one hospital may total their hours.
   c) Acute patients exclude scheduled and return visits, physicals, and patients not seen by the ED Physician.
   d) During period of double coverage, the whole shall be met if one of the physicians meets the above standards.

c. All RH RNs shall:
   1) Be regular hospital staff assigned solely to the ED for that shift.
   2) Maintain current ACLS certification.

d. All other nursing and clerical personnel for the Emergency Department shall maintain current Basic Cardiac Life Support certification.

e. Sufficient licensed personnel shall be staffed to support the services offered.

13. Cooperate with and assist the PSC and EMS Medical Director in the collection of statistics for program evaluation.

14. Agree to maintain all prehospital data in a manner consistent with hospital data requirements and provide that the data be integrated with the patient's chart. Prehospital data shall include the Ventura County Electronic Patient Care Report (VCePCR), Paramedic Base Hospital communication form (from the BH), and documentation of a BH telephone communication with the RH.

15. Participate with the BH in evaluation of paramedics for reaccreditation.

16. Permit the use of the hospital helipad as an emergency rendezvous point if a State-approved helipad is maintained on hospital premises.

B. There shall be a written agreement between the RH and EMS indicating the commitment of hospital administration, medical staff, and emergency department staff to meet requirements for ALS program participation as specified by EMS policies and procedures.

C. EMS shall review its agreement with each RH at least every two years.

D. EMS may deny, suspend, or revoke the approval of a RH for failure to comply with any applicable policies, procedures, or regulations. Requests for review or appeal of such decisions shall be brought to the Board of Supervisors for appropriate action.

E. The EMS Medical Director may grant an exception to a portion of this policy upon substantiation of need by the PSC that, as defined in the regulations, compliance with the regulation would not be in the best interests of the persons served within the affected local area.

F. A hospital that applies to become a RH in Ventura County must meet Ventura County RH Criteria and agree to comply with Ventura County regulation.

1. Application:
   Eligible hospital shall submit a written request for RH approval to the VCEMS, documenting the compliance of the hospital with the Ventura County RH.
2. Approval:
   Program approval or denial shall be made in writing by EMS to the requesting RH within a reasonable period of time after receipt of the request for approval and all required documentation. This period shall not exceed three (3) months.

G. ALS RHs shall be reviewed every two years.

1. All RH shall receive notification of evaluation from the EMS.
2. All RH shall respond in writing regarding program compliance.
3. On-site visits for evaluative purposes may occur.
4. Any RH shall notify the EMS by telephone, followed by a letter within 48 hours, of changes in program compliance or performance.

H. Paramedics providing care for emergency patients with potentially serious medical conditions and are within the catchment area of a hospital with a standby emergency department, shall make immediate base contact for destination determination. Examples of these patients would include, but are not limited to, patients with:

1. Patients with seizure of new onset, multiple seizures within a 24-hour period, or sustained alteration in level of consciousness
2. Chest pain or discomfort of known or suspected cardiac origin
3. Sustained respiratory distress not responsive to field treatment
4. Suspected pulmonary edema not responsive to field treatment
5. Potentially significant cardiac arrhythmias
6. Orthopedic emergencies having open fractures, or alterations of distal neurovascular status
7. Suspected spinal cord injury of new onset

8. Burns greater than 10% body surface area
9. Drowning or suspected barotrauma with any history of loss of consciousness, unstable vital signs, or respiratory problems
10. Criteria that meet stroke, STEMI, or trauma criteria for transport to a specialty care hospital

I. A RH with a standby emergency department only, offering "standby emergency medical service," is considered to be an alternative receiving facility. Patients may be transported to a standby emergency department when the use of the facility is in the best interest of patient care.

1. Patients that require emergent stabilization at an emergency department may be transported to a standby emergency department if a basic emergency facility is not within a reasonable distance. These would include patients:
    a. In cardiac arrest with NO return of spontaneous circulation (ROSC) in the field
    b. With bleeding that cannot be controlled
    c. Without an effective airway
2. 3. During hours of peak traffic, the Base Hospital MICN should make destination determinations based on predicted travel time and patient condition. Patients who meet criteria for trauma, stroke, or STEMI in the absence of a condition that meets I.1. above, will be directed to the appropriate destination.
4. A RH with a standby emergency department shall report to Ventura County EMS Agency any change in status regarding its ability to provide care for emergency patients.

COUNTY OF VENTURA
EMERGENCY MEDICAL SERVICES

RECEIVING HOSPITAL
CRITERIA COMPLIANCE CHECKLIST

Receiving Hospital: ____________________ Date: ______________

	YES	NO
A. Receiving Hospital (RH), approved and designated by the Ventura County, shall:		
1. Be licensed by the State of California as an acute care hospital.		
2. Meet the requirements of the Health and Safety Code Section 1250-1262 and Title 22, Sections 70411, 70413, 70415, 70417, 70419, 70649, 70651, 70653, 70655 and 70657 as applicable.		
3. Be accredited by a CMS accrediting agency		
4. Operate an Intensive Care Unit.		
5. Have the following specialty services available at the hospital or appropriate referral hospital (at the discretion of the Emergency Department (ED) Physician. and consultant Physician.) within 30 minutes:		
• Cardiology		
• Anesthesiology		
• Neurosurgery		
• Orthopedic Surgery		
• General Surgery		
• General Medicine		
• Thoracic Surgery		
• Pediatrics		
• Obstetrics		
6. Have operating room services available within 30 minutes.		
7. Have the following services available within 15 minutes.		
• X-Ray		
• Laboratory		
• Respiratory Therapy		
8. Evaluate all ambulance transported patients promptly, either by RH Physician, Private Physician or other qualified medical personnel designated by hospital policy.		
9. Have the capability at all times to communicate with the ambulances and the BH.		
10. Designate an Emergency Department Medical Director who shall be a physician on the hospital staff, licensed in the State of California and have experience in emergency medical care. The Medical Director shall:		
a. Be regularly assigned to the Emergency Department.		
b. Have knowledge of VC EMS policies and procedures.		

	YES	NO
c. Coordinate RH activities with Base Hospital, Prehospital Services Committee (PSC), and VCEMS policies and procedures.		
d. Attend or have designee attend PSC meetings.		
e. Provide Emergency Department staff education.		
f. Schedule medical staffing for the ED on a 24-hour basis.		
11. Agree to provide, at a minimum, on a 24-hour basis, a physician and a registered nurse that meets the following criteria:		
a. All Emergency Department physicians shall:		
1). Be immediately available to ED at all times.		
2) Be certified by the American Board of Emergency Medicine OR the American Osteopathic Board of Emergency Medicine OR be Board eligible OR have all of the following:		
a). Have and maintain current Advanced Cardiac Life Support (ACLS) certification.		
b) Have and maintain current Advanced Trauma Life Support (ATLS)certification.		
c) Complete at least 25 Category I CME hours per year with content applicable to Emergency Medicine.		
b. RH EDs shall be staffed by:		
1). Full-time staff: those physicians who practice emergency medicine 120 hours per month or more, and/or		
2) Regular part-time staff: those physicians who see 90 patients or more per month in the practice of emergency medicine.		
a) Formula: Average monthly census of acute patients divided by 720 hours equals average number of patients per hour. This figure multiplied by average hours worked by physician in emergency medicine equals patients per physician per month		
b) Physicians working in more than one hospital may total their hours		
c) Acute patients exclude scheduled and return visits, physicals, and patients not seen by the ED Physician		

	YES	NO
d) During period of double coverage, the whole shall be met if one of the physicians meets the above standards.)		
c. All RH RNs shall:		
1) Be regular hospital staff assigned solely to the ED for that shift.		
2) Maintain current ACLS certification.		
d. All other nursing and clerical personnel for the ED shall maintain current Basic Cardiac Life Support certification.		
e. Sufficient licensed personnel shall be utilized to support the services offered.		
12. Cooperate with and assist the PSC and EMS Medical Director in the collection of statistics for program evaluation.		
13. Agree to maintain all prehospital data in a manner consistent with hospital data requirements and provide that the data be integrated with the patient's chart. Prehospital data shall include the VCePCR, paramedic Base Hospital communication form (from the BH), and documentation of a BH telephone communication with the RH.		
14. Participate with the BH in evaluation of paramedics for reaccreditation.		
15. Permit the use of the hospital helipad as an emergency rendezvous point if a State-approved helipad is maintained on hospital premises.		
B. There shall be a written agreement between the RH and EMS indicating the commitment of hospital administration, medical staff, and emergency department staff to meet requirements for employment as specified by EMS policies and procedures.		

COUNTY OF VENTURA
EMERGENCY MEDICAL SERVICES

RECEIVING HOSPITAL PHYSICIAN
CRITERIA COMPLIANCE CHECKLIST

Physician Name: ____________________ Date: _______________

All Emergency Department physicians shall:	YES	NO
1. Be immediately available to the RH ED at all times.		
2. Be certified by the American Board of Emergency Medicine OR the American Osteopathic Board of Emergency Medicine OR be Board eligible OR have all of the following:		
a. Have and maintain current ACLS certification.		
b. Complete at least 25 Category I CME hours per year with content applicable to Emergency Medicine.		
c. Have and maintain current Advanced Trauma Life Support (ATLS) certification.		

The above named physician is:

1) Full-time staff: A physician who practices emergency medicine 120 hours per month or more, and/or		
2) Regular part-time staff: A physician who see 90 patients or more per month in the practice of emergency medicine (Average monthly census of acute patients divided by 720 hours equals average number of patients per hour. This figure multiplied by average hours worked by physician in emergency medicine equals patients per physician per month, Physicians working in more than one hospital may total their hours, Acute patients exclude scheduled and return visits, physicals, and patients not seen by the ED Physician)		

COUNTY OF VENTURA
EMERGENCY MEDICAL SERVICES

RECEIVING HOSPITAL
STANDBY EMERGENCY DEPARTMENT
ADDITIONAL CRITERIA COMPLIANCE
CHECKLIST

Receiving Hospital w/Standby ED:_____________ Date: _______________

	EMS REVIEW	
The RH with standby ED has:	YES	NO
A. Medical staff, and the availability of the staff at various times to care for patients requiring emergency medical services.		
B. Ability of staff to care for the degree and severity of patient injuries or condition.		
C. Equipment and services available at the facility necessary to care for patients requiring emergency medical services and the severity of their injuries or condition.		
D. During the current 2-year evaluation period, has reported to Ventura County EMS Agency any change in status regarding its ability to provide care for emergency patients.		
E. Authorization by the Ventura County EMS Agency medical director to receive patients requiring emergency medical services, in order to provide for the best interests of patient care.		
COMMENTS		

Appendix D

COUNTY OF VENTURA HEALTH CARE AGENCY	EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Acute Stroke Center (ASC) Standards	Policy Number 450
APPROVED: Administration: Steven L. Carroll, Paramedic	Date: September 1, 2017
APPROVED: Medical Director: Daniel Shepherd, MD	Date: September 1, 2017
Origination Date: October 11, 2012 Date Revised: May 31, 2017 Last Review: May 31, 2017 Review Date: December, 2019	Effective Date: September 1, 2017

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 100170.

III. DEFINITIONS:

Acute Stroke Center (ASC): Hospital designated as an Acute Stroke Center by the Ventura County EMS Agency that maintains certification as an ASRH, PSC, or CSC.

Acute Stroke Ready Hospital: (ASRH) Hospital certified by either The Joint Commission, Det Norske Veritas, or the Healthcare Facilities Accreditation Program as an Acute Stroke Ready Hospital.

Comprehensive Stroke Center: (CSC) Hospital certified by either The Joint Commission, Det Norske Veritas, or the Healthcare Facilities Accreditation Program as a Comprehensive Stroke Center.

Primary Stroke Center: (PSC) Hospital certified by either The Joint Commission, Det Norske Veritas, or the Healthcare Facilities Accreditation Program as a Primary Stroke Center.

Thrombectomy Capable Acute Stroke Center: (TCASC) Acute Stroke Center (ACS) that has the capability to perform neuroendovascular procedures for acute stroke including thrombectomy and intra-arterial thrombolysis.

IV. 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.

2. Certification as an Acute Stroke Ready Hospital (ASRH), Primary Stroke Center (PSC), or Comprehensive Stroke Center (CSC) 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:
   a. 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 an Acute Stroke Ready Hospital, Primary Stroke Center, or a Comprehensive Stroke Center by 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.
3. 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 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:
    a. 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 an Acute Stroke Ready Hospital, Primary Stroke Center, or Comprehensive Stroke Center by 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.

Appendix E

<table>
<tr><td colspan="2">COUNTY OF VENTURA
HEALTH CARE AGENCY</td><td colspan="2">EMERGENCY MEDICAL SERVICES
POLICIES AND PROCEDURES</td></tr>
<tr><td colspan="3">Policy Title:
Stroke System Triage and Destination</td><td>Policy Number
451</td></tr>
<tr><td>APPROVED:
Administration:</td><td colspan="2">Steven L. Carroll, Paramedic</td><td>Date: June 1, 2019</td></tr>
<tr><td>APPROVED:
Medical Director:</td><td colspan="2">Daniel Shepherd, M.D.</td><td>Date: June 1, 2019</td></tr>
<tr><td colspan="3">Origination Date: October 11, 2012
Date Revised: March 28, 2019
Date Last Reviewed: March 28, 2019
Review Date: March 31, 2022</td><td>Effective Date: June 1, 2019</td></tr>
</table>

I. PURPOSE: To outline the process of pre-hospital triage and transport of suspected acute stroke patients to facilities designated as an Acute Stroke Center (ASC) or a Thrombectomy Capable Acute Stroke Center (TCASC).

II. AUTHORITY: California Health and Safety Code Sections 1797.220 and 1798, California Code of Regulations, Title 22, Division 9, Sections 100147, and 100169

III. DEFINITIONS:

Acute Stroke Center (ASC): Hospital designated as an Acute Stroke Center, as defined in VCEMS Policy 450.

Comprehensive Stroke Center: (CSC) Hospital certified by either The Joint Commission, Det Norske Veritas, or the Healthcare Facilities Accreditation Program as a Comprehensive Stroke Center.

ELVO Alert: A pre-arrival notification by pre-hospital personnel to the base hospital that a patient is suffering a possible Emergent Large Vessel Occlusion (ELVO) ischemic stroke.

Emergent Large Vessel Occlusion (ELVO): An acute ischemic stroke caused by a large vessel occlusion.

Stroke Alert: A pre-arrival notification by pre-hospital personnel that a patient is suffering a possible acute stroke.

Thrombectomy Capable Acute Stroke Center: (TCASC) Acute Stroke Center (ASC) that has the capability to perform neuroendovascular procedures for acute stroke including thrombectomy and intra-arterial thrombolysis.

Time Last Known Well (TLKW): The date/time at which the patient was last known to be without the current signs and symptoms or at his or her baseline state of health.

Ventura ELVO Score (VES): A tool designed for paramedics to screen for an ELVO in the prehospital setting.

IV. POLICY:

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

1. Patient's TLKW is within 24 hours.

2. Blood Glucose is greater than sixty (60) OR patient continues to exhibit signs and symptoms of an acute stroke after pre-hospital treatment of abnormal blood glucose levels.

3. Identification of *ANY* abnormal finding of the Cincinnati Stroke Scale (CSS).
FACIAL DROOP
Normal: Both sides of face move equally
Abnormal: One side of face does not move normally
ARM DRIFT
Normal: Both arms move equally or not at all
Abnormal: One arm does not move, or one arm drifts down compared with the other side
SPEECH
Normal: Patient uses correct words with no slurring
Abnormal: Slurred or inappropriate words or mute

B. Perform the Ventura ELVO Score (VES) below:
Forced Eye Deviation: (1 point)
Force full deviation of BOTH eyes to one side or the other
Eyes will not pass midline

Aphasia: Patient is awake, but: (1 point). *ANY* of the following present is a positive (1 Point) for Aphasia)
Repetition: Unable to repeat a sentence ("Near the chair in the dining room.")
Naming: Unable to name an object (show a watch and a pen, ask patient to name the objects)
Mute: Ask the patient 2 Questions (What is your name? How old are you?)
Talking gibberish and/or not following commands

Neglect: (1 point)

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

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

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

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

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

Obtundation: (1 point)

Not staying awake in between conversation

C. Score 1 point for each positive component of the VES (Total Score Possible = 4). If VES has a score of 1 or more, and the patient is positive for **all 3** findings of the CSS, and the TLKW is within 6 hrs, the patient will be an **ELVO Alert**. If TLKW is between 6- 24hrs, or if CSS has only 1 or 2 positive findings, the patient will be a **stroke alert.**

D. For a ***Stroke Alert***, Base Hospital Contact (BHC) will be established and a Stroke Alert will be activated.

E. For an ***ELVO Alert*,** the nearest TCASC is the base hospital for that patient. (East of Lewis Rd is LRH and west of Lewis Rd. is SJR). Prehospital personnel will make base contact with the appropriate TCASC and an ELVO alert will be activated. The appropriate specialist on-call will be notified by the MICN.
   1. The base hospital will determine the nearest ASC or TCASC using the following criteria:
      a. Patients condition
      b. TCASC or ASC availability on ReddiNet
      c. Transport time
      d. Patient request

   2. The Base Hospital will notify the appropriate ASC of the *Stroke Alert* or TCASC of an *ELVO Alert.*

F. Destination Decision: patients meeting stroke system criteria shall be transported to the nearest ASC, except in the following cases:
   1. Stroke patients in cardiac arrest shall be transported to the nearest receiving hospital. Patients who have greater than thirty seconds of return of spontaneous circulation (ROSC) shall be transported to the nearest STEMI Receiving Center (SRC).

   2. The nearest ASC is incapable of accepting a stroke alert patient due to ED, CT or Internal Disaster diversion, transport to the next closest ASC.

   3. The patient requests transport to an alternate facility, not extending transport by more than twenty (20) minutes and approved by the Base Hospital.

4. Patient meeting ELVO Alert criteria will be transported to the nearest TCASC if ***total*** transport time does not exceed 45 minutes.

G. Upon Arrival: You may be asked to take your patient directly to the CT scanner.
   a. Give report to the nurse, transfer the patient from your gurney onto the CT scanner platform, and then return to service.
   b. If there is any delay, such as CT scanner not readily available, or a nurse not immediately available, you will not be expected to wait. You will take the patient to a monitored bed in the ED and give report as usual.

H. Documentation
   1. Care and findings related to an acute stroke patient shall be documented in the Ventura County electronic patient care reporting (VCePCR) system in accordance with VCEMS policy 1000.

Appendix F

<table>
<tr><td colspan="2">COUNTY OF VENTURA
HEALTH CARE AGENCY</td><td>EMERGENCY MEDICAL SERVICES
POLICIES AND PROCEDURES</td></tr>
<tr><td colspan="2">Policy Title:
Thrombectomy Capable Acute Stroke Center (TCASC) Standards</td><td>Policy Number
452</td></tr>
<tr><td colspan="2">APPROVED:
Administration: Steven L. Carroll, Paramedic</td><td>Date: June 1, 2018</td></tr>
<tr><td colspan="2">APPROVED:
Medical Director: Daniel Shepherd, MD</td><td>Date: June 1, 2018</td></tr>
<tr><td>Origination Date: July 26, 2017
Date Revised: January 11, 2018
Last Review: January 11, 2018
Review Date: January 31, 2021</td><td colspan="2">Effective Date: June 1, 2018</td></tr>
</table>

I. PURPOSE: To define the criteria for designation as a Thrombectomy Capable Acute Stroke Center (TCASC) 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. DEFINITIONS:

Acute Stroke Center (ASC): Hospital designated as an Acute Stroke Center, as defined in VCEMS Policy 450.

ELVO Alert: A pre-arrival notification by pre-hospital personnel to the base hospital that a patient is suffering a possible Emergent Large Vessel Occlusion (ELVO) ischemic stroke.

Thrombectomy Capable Acute Stroke Center: (TCASC) Acute Stroke Center (ASC) that has the capability to perform neuroendovascular procedures for acute stroke including thrombectomy and intra-arterial thrombolysis.

IV. POLICY:

B. A Thrombectomy Capable Acute Stroke Center (TCASC), approved and designated by Ventura County EMS (VC EMS), shall meet the following requirements:

6. All the requirements of an Acute Stroke Center (ASC) as defined in Policy 450.
7. Certified as a Thrombectomy Stroke Center (TSC) or a Comprehensive Stroke Center (CSC) by either The Joint Commission or Det Norske Veritas.
8. Neurointerventionist on call 24/7 and available on-site at TCASC within 45 minutes of notification of an ELVO alert.
9. Neurosurgeon on call 24/7 and available to provide care as indicated.

10. Neurologist, with hospital privileges to provide ICU level of care for acute stroke patients, on call 24/7 and available to provide care as indicated.
11. An individual Neurointerventionist or Neurosurgeon may not be simultaneously on call for a separate hospital.
12. Appropriate endovascular catheterization laboratory personnel available on-site within 45 minutes of notification of an ELVO alert
13. Will create policies and procedures detailing how the TCASC will notify the appropriate personnel of an ELVO alert.
14. Will accept all ELVO alert patients, regardless of ICU or ED saturation status, except in the event of internal disaster or no catheterization laboratory availability.
15. Will create policies and procedures detailing how the TCASC will manage the presentation of concurrent ELVO alerts.
16. Will create policies and procedures detailing how the TCASC plans to manage competing demands on the procedure suite (staffing, other cardiovascular procedures).
17. Will create policies and procedures that allow the automatic acceptance of any ELVO patient from a Ventura County Hospital upon notification by the transferring physician.
18. Ability to perform endovascular procedures as indicated for emergent large vessel occlusions.
19. Have CT or MRI perfusion capabilities.
20. Maintain appropriate staff and facility availability to address complications of emergent endovascular procedures.
21. Will participate in the Ventura County Stroke Registry in accordance with policy 450.

B. Designation Process:

1. Application:

   Eligible hospitals shall submit a written request for TCASC 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 TCASC Standards.

2. Approval:

   a. Upon receiving a written request for TCASC designation, VC EMS will arrange an on-site survey of the requesting hospital to assure compliance with stated requirements.

b. TCASC 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 Thrombectomy Stroke Center or Comprehensive Stroke Center by The Joint Commission or Det Norske Veritas shall occur no later than six months following designation as a TCASC by VC EMS.

3. VCEMS may deny, suspend, or revoke the designation of an TCASC 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 TCASC that compliance with the regulation would not be in the best interests of the persons served within the affected area.

5. TCASCs shall be reviewed on a biannual basis.
   a. TCASCs shall receive notification of evaluation from the VCEMS.
   b. TCASCs shall respond in writing regarding program compliance.
   c. On-site TCASC visits for evaluative purposes may occur.
   d. TCASCs 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 a TCASC to a requesting hospital that has satisfied the requirements of a TCASC as outlined in section A of this policy but has yet to receive certification 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 TCASC 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 TCASC Standards.

2. Provisional Approval:
    a. Upon receiving a written request for provisional TCASC designation, VC EMS will arrange an on-site survey of the requesting hospital to assure compliance with stated requirements.
    b. Provisional TCASC 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 Thrombectomy-capable Stroke Center or Comprehensive Stroke Center by The Joint Commission or Det Norske Veritas shall occur no later than six months following provisional designation as an TCASC by VC EMS.
3. VC EMS may deny, suspend, or revoke the designation of an TCASC 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.

Appendix G

COUNTY OF VENTURA HEALTH CARE AGENCY	EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Guidelines for Interfacility Transfer of Emergency Department Acute Stroke Patients	Policy Number 460
APPROVED: Administration: Steven L. Carroll, Paramedic	Date: December 1, 2019
APPROVED: Medical Director: Daniel Shepherd, M.D.	Date: December 1, 2019
Origination Date: July 13, 2017 Date Revised: October 10. 2019 Last Reviewed: October 10, 2019 Review Date: October 31, 2022	Effective Date: December 1,2019

I. PURPOSE: To define the interfacility transfer process by which emergency department patients with an acute stroke are transferred to:1) an Acute Stroke Center (ASC) or 2) a Thrombectomy Capable Acute Stroke Center (TCASC).

II. AUTHORITY: Health and Safety Code, Sections 1797.220 and 1798. California Code of Regulations, Title 22, 100170.

III. DEFINITIONS:

Acute Stroke Center (ASC): Hospital designated as an Acute Stroke Center, as defined in VC EMS Policy 450.

Primary Stroke Center (PSC): Hospital certified by either The Joint Commission, Det Norske Veritas, or the Healthcare Facilities Accreditation Program as a Primary Stroke Center.

Thrombectomy Capable Acute Stroke Center (TCASC): ASC Hospital that has the capability to perform neuroendovascular procedures for acute stroke including mechanical thrombectomy and intra-arterial thrombolysis. (as defined in VC EMS Policy 452)

Comprehensive Stroke Center (CSC): Hospital certified by either The Joint Commission, Det Norske Veritas, or the Healthcare Facilities Accreditation Program as a Comprehensive Stroke Center.

Emergent large vessel occlusion (ELVO): An acute ischemic stroke caused by a large vessel occlusion.

Acute Stroke: A stroke as it pertains to this policy, a cerebral vascular accident (CVA) which needs immediate neurointervention, a neurosurgical procedure, specialty consultation, or a higher level of care.

IV. POLICY:

A. Hospitals will:

1. Assemble and maintain a "Stroke Transfer Pack" in the emergency department to contain all of the following:
    a. Phone numbers of all Ventura County ASCs and TCASCs.
    b. Phone numbers of the closest PSC, TSC or CSC outside the County.
    c. Preprinted template order sheet with recommended prior-to-transfer treatments. Treatment guidelines will be developed with input from the ED, Neurologists and the ASCs/TCASCs.
    d. Patient Consent/Transfer Forms.
    e. Treatment summary sheet.
2. Have policies, procedures, and a quality improvement system in place to minimize door in-to-door out, door-to-brain imaging interpretation, door to thrombolytic initiation and ischemic stroke diagnosis-to-transfer times.
3. Establish policies and procedures to make the appropriate personnel available to accompany the patient during the transfer to the ASC or TCASC. These policies will include patient criteria for requiring appropriate personnel to accompany patient when medications or procedures outside of the paramedic scope of practice are being used.

B. Ventura County Fire Communications Center (FCC) will:

1. Respond to a stroke transfer request by immediately dispatching the closest available ALS ambulance to the requesting hospital.

C. Ambulance Companies:

1. Will respond an ALS ambulance immediately upon request for a "stroke transfer".
2. Transfers performed according to this policy are not considered an interfacility transport as it pertains to ambulance contract compliance.

D. ASC or TCASC will:

1. Maintain accurate status information on ReddiNet regarding the availability of neuroendovascular capability or status availability for ASC.
2. Publish a single phone number, that is answered 24/7, to receive notification of a stroke transfer.

3. Immediately upon initial notification by a transferring physician at the hospital, accept transfer of all patients who have been diagnosed with an acute stroke and who, in the judgment of the transferring physician, require either 1) an urgent endovascular procedure, or 2) a higher level of care.
4. Establish an internal communications plan that assures the immediate notification of all necessary individuals.
5. Adopt procedures to make an ICU/CCU bed available or to make alternate arrangements for inpatient care.

V. PROCEDURE:

A. Upon diagnosis of an ELVO, or an acute stroke needing a higher level of care; and after discussion with the patient or patient's family/caregiver, the hospital will:
   1. Determine availability by checking ReddiNet, and transfer patient to the closest ASC or TCASC. The destination will depend on the clinical context.
   2. Immediately call the Ventura County Fire Communication Center at 805-384-1500 for a Stroke transfer.
   3. Identify their facility to the dispatcher and advise they have a "stroke transfer".
   4. After calling for ambulance, the ED transferring physician will notify the ASC or TCASC emergency physician of the transfer.
   5. Perform all indicated diagnostic tests and treatments.
   6. Complete transfer consent, treatment summary, and stroke data forms.
   7. Include copies of the ED face sheet and demographic information.
   8. Have available if needed, one or more healthcare staff, as determined by the clinical status of the patient, to accompany the patient to the ASC or TCASC
      a. If, because of unusual and unanticipated circumstances, healthcare staff is unavailable for transfer, a Critical Care Transport (CCT) transfer may be requested by calling the CCT provider ambulance dispatch center. Please initiate the CCT transfer process ASAP to minimize delay.

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

C. Upon notification, the ambulance will respond Code 3 (lights & sirens) to the transferring facility.

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.

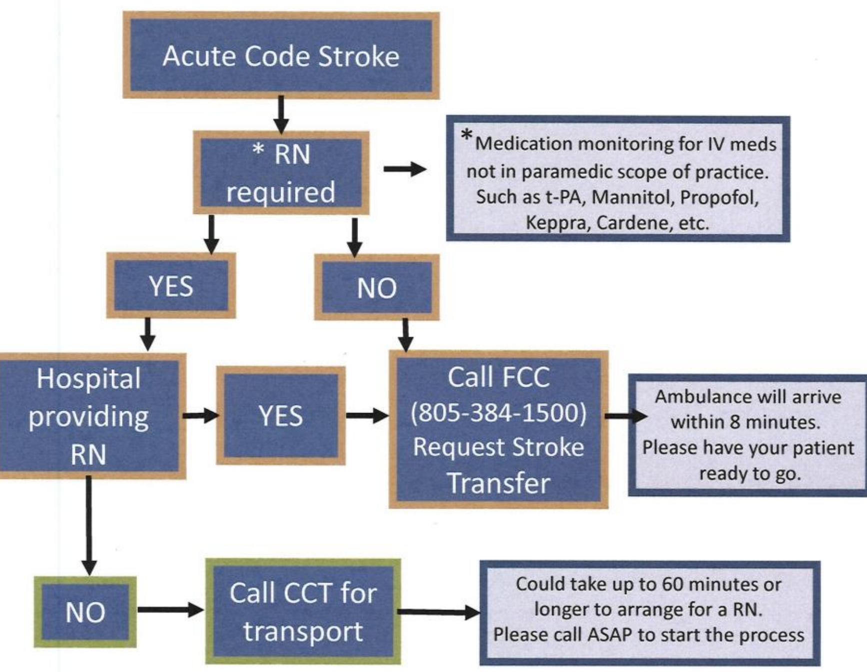
E. The patient shall be urgently transferred without delay. Every effort will be made to minimize on-scene time.

1. All forms should be completed prior to ambulance arrival.
2. Diagnostic test results may be relayed to the ASC or TCASC at a later time.
3. Intravenous drip t-PA will continue infusing on the ED pump, accompanied by an RN or physician, if t-PA has not been completed upon ambulance arrival.
4. Nurse report will be given to the receiving hospital at the time of, or immediately after, ambulance departure.

F. Upon notification, the ASC or TCASC will notify appropriate staff to prepare for the patient.

G. The hospital and the ASC or TCASC shall review all stroke 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 Stroke CQI Committee.

H. e-PCR documentation will be completed by ambulance personnel.


Emergency Department Only
Acute Code Stroke
* RN required
*Medication monitoring for IV meds not in paramedic scope of practice. Such as t-PA, Mannitol, Propofol, Keppra, Cardene, etc.
YES
NO
Hospital providing RN
YES
Call FCC (805-384-1500) Request Stroke Transfer
Ambulance will arrive within 8 minutes. Please have your patient ready to go.
NO
Call CCT for transport
Could take up to 60 minutes or longer to arrange for a RN. Please call ASAP to start the process

Appendix H

Ventura County EMS
County Wide Protocols Policy 705.26

Suspected Stroke

ADULT

BLS Procedures

Cincinnati Stroke Scale (CSS) Administer

oxygen as indicated

Administer oxygen if SpO2 less than 94% or unknown

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

ALS Prior to Base Hospital Contact

IV/IO access

Cardiac monitor – document initial and ongoing rhythm strips

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

Patients meeting Stroke Alert criteria as defined in VC EMS Policy 451:

- Notify Base hospital within 10 minutes of identifying a Stroke Alert
- expedite transport to appropriate Acute Stroke Center (ASC).

Patients meeting ELVO Alert criteria as defined in VC EMS Policy 451:

- Notify TCASC within 10 minutes of identifying an ELVO Alert
- expedite transport to appropriate Thrombectomy Capable Acute Stroke Center (TCASC).

Base Hospital Orders only

Consult with ED Physician for further treatment measure

Additional Information

Cincinnati Stroke Scale (CSS) **Ventura County ELVO Score (VES)**

Facial Droop

Normal: Both sides of face move equally Forced Eye Deviation Abnormal: One side of face does not move normally

Arm Drift Aphasia

Normal: Both arms move equally or not at all

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

Speech Obtundation

Normal: Patient uses correct words with no slurring

Abnormal: Slurred or inappropriate words or mute Refer to VC EMS Policy 451 for Detailed VES

- Patients must meet Stroke Alert criteria in order to continue to VES
- Document name and phone number in ePCR of person who observed patient’s Time Last Known Well (TLKW), and report this information to the receiving facility.
- Stroke patients in cardiac arrest with sustained ROSC (greater than30 seconds) shall be transported to the nearest STEMI Receiving Center (SRC).
- For seizure activity, refer to VC EMS Policy 705.20 Seizure.

Effective Date: December 1, 2019
Next Review Date: October 31, 2021
Date Revised: October 10, 2019
Last Reviewed October 10, 2019

VCEMS Medical Director

VENTURA COUNTY EMS Agency

STEMI Critical Care System PLAN 2019

October 2019

Ventura County Emergency Medical Services Agency

Steve Carroll
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EMS Deputy Administrator

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Section I Plan Overview

A. Introduction

Patients suffering from an ST Elevation Myocardial Infarction (STEMI) have the best chance of survival when they receive rapid assessment and transport to a receiving hospital which have specialized equipment and personnel to treat these deadly heart attacks. The Ventura County STEMI System began in 2007 and currently has four STEMI Receiving Centers (SRC). STEMI system performance is based on standards developed by the American College of Cardiology, the American Heart Association and the California Department of Public Health.

B. Purpose

The STEMI Critical Care System Plan for Ventura County is, first and foremost, a patient advocacy document. Its purpose is to provide a framework for the establishment of a comprehensive STEMI program for the County that addresses the needs of the patient suffering from an acute STEMI. The plan acknowledges the inherent challenges of the urban, semi-rural, and rural healthcare environment and provides an organized process to ensure quality STEMI services while remaining sensitive to the intrinsic resource and financial constraints of the system participants. This plan recognizes that a partnership of organizations, institutions and individuals form the nucleus of a quality STEMI system. It is only through this partnership and adherence to quality STEMI care standards that the goals of this plan will be achieved.

This STEMI Plan designs a countywide STEMI system in order to:

1. Identify STEMI patients
2. Identify and measure preventable death and disability from a STEMI.
3. Assure timely, optimal STEMI services in a cost-efficient manner through close coordination of prehospital, hospital and rehabilitation services.
4. Match patient medical needs with resources of the SRC.

C. Overview

An organized, systematic approach to STEMI patients results in a reduction in patient mortality and morbidity. For the last four years, Ventura County EMS Agency along with its eleven partnered agencies, have received the Mission Lifeline Gold Plus Award by the American Heart Association for our STEMI Systems of Care performance measures.

The intent of this plan is to formalize Ventura County's STEMI care system by defining the roles and responsibilities of the SRCs in accordance with the California

State Regulations. The system is based on an inclusive model, encouraging all hospitals to participate at some level, dependent upon their resources. Using this approach makes the best use of available resources, matches patient needs to level of care, engages all acute care facilities in the management of STEMI patients.

The facility standards contained in this document are based upon the California Code of Regulations, Division 9, Chapter 7.1 ST-Elevation Myocardial Infarction Critical Care System. Interfacility transfer agreements have been established to facilitate the rapid and appropriate transfer of patients both within and outside of the County as their medical care needs dictate.

The Ventura County EMS Agency (VC EMS) rigorously monitors the system established by this plan through review of Cardiac Care Registry data, outcome studies and site visits. The planning of care for these patients is coordinated with all other components of the EMS system. A Continuous Quality Improvement (CQI) model has been instituted for system review and a comprehensive management information system has been implemented to ensure the seamless integration of dispatch, prehospital, hospital and registry information.

This plan defines:

1. Operation of a countywide, inclusive STEMI Critical Care System.
2. Prehospital STEMI treatment and transportation protocols, which recognize the urban, semi-rural and rural nature of the County.
3. Aeromedical response and transportation requirements.
4. Operational requirements for STEMI Receiving Centers (SRC).
5. Designation and contract with SRCs to provide STEMI care services.
6. A clear line of authority for the countywide STEMI system administration.
7. Continuous Quality Improvement program, including a STEMI registry

This STEMI Critical Care System Plan includes four SRCs and four STEMI Referral Hospitals (SRH).

The Base Hospitals provide on-line communications and medical control to the field personnel for STEMI patients. All prehospital care personnel are trained on appropriate STEMI treatment and transportation protocols.

D. STEMI Plan Philosophy

The goal for Ventura County's STEMI Plan is to assure high quality STEMI care to all residents of, and visitors to, the County. To this end, SRCs are designated to optimize both care and access. A priority consideration in this plan is to provide high quality STEMI services to the population served while remaining cognizant of the available resources. The hospitals will be integrated into a total system of care that includes prevention programs as well as comprehensive treatment, prehospital through rehabilitation and follow-up. Air medical dispatch procedures will be evaluated and revised as needed. The STEMI system of care is monitored by VC EMS and the STEMI Committee.

The philosophy of the Ventura County STEMI Plan calls for the following elements:

1. STEMI Receiving Centers

Two hospitals in the East County, one hospital in the West County and one hospital in the Central County are designated as an SRC.

2. Inclusive

Participation of all hospitals are encouraged countywide, with a demonstrated and documented commitment to quality care.

3. Continuous Quality Improvement/Outcome

Orientation towards a continuous quality improvement process and an emphasis on patient outcomes is the primary focus of program evaluation.

4. Prevention/Education
Several different classes are offered by the SRCs such as “Smoking Cessation”, “Heart Healthy Nutrition”, Fun & Fitness Dance”, “Cardio Yoga”, and “Cardiac Care Education”.

5. Continuum of Services

The STEMI Critical Care System program is an integrated system comprised of pre-hospital, hospital and rehabilitative care.

E. Legal Basis

VC EMS, under the authority of the California Code of Regulations (CCR), Title 22, Division 9, Chapter 7.1, develops this STEMI Plan. Responsibility for the plan's development, implementation and oversight rests with VC EMS.

F. Plan Approach

SRC Designation in Ventura County are based on standards developed by the American College of Cardiology, the American Heart Association, the California Department of Public Health, and the California Code of Regulations, Division 9, Chapter 7.1.

Our neighboring counties, Los Angeles and Santa Barbara, have designated SRCs as well. VC EMS has coordinated with EMS agencies located within proximity, to ensure the integration of adjacent STEMI systems for efficient care of STEMI patients.

G. Air Transport

The Ventura County Sheriff Aviation Unit is the air rescue provider for the County. This unit is staffed 7 days a week, nine hours a day. After 5 pm, the pilot and crew must be recalled and respond to an emergency. Most calls for service occur during staffed hours of the Sheriff Aviation Unit. Air Ambulance services may be requested from Cal Star located in Santa Maria or Mercy Air in Rialto. Both have potential flight times of over 30 minutes. Mutual Aid Air Rescue resources can also be utilized by Los Angeles County and City fire departments which staff their units 24 hours a day and have ETA’s of less than 30 minutes to most areas of the County.

Section II Overview of Ventura County

A. Geography

The County of Ventura is located in Southern California and encompasses an area of 2,208 square miles (1,845 land, and 363 water). The boundary of the County extends from the Sierra Madre and San Rafael mountain ranges and a small portion of Kern County on the Northwest, from Santa Barbara County on the Northwest, Los Angeles County on the Southeast and the Pacific Ocean on the Southwest. The size and industrial diversity of the Ventura County area presents special problems in the allocation and availability of healthcare resources. Mountainous terrain, expanses of agricultural land, and widely dispersed rural communities intensify this problem by limiting accessibility to health care.

Water plays a vital role in the growth and development of this area. Ventura County is a water-deficient area with demand greater than the local supply. Acquisition, quality, and conservation of water are paramount to the area's development. Local water supplies come from runoff stored in reservoirs or from ground water. Water is the main recreational feature in Ventura County, attracting tourists and the fishing industry.

The mountains bordering the eastern section of the County join with humid conditions to create dense fog during the summer months at the higher elevations. This dense fog can produce zero visibility and result in a high crash rate for the area and hinders the accessibility to healthcare services, especially for rural residents.

B. Transportation

The automobile is the predominate form of transportation in Ventura County. Two major arteries, Highways 101 and 118, transact the area from south to north along the edge of the Pacific Ocean. There are three other smaller arteries, Highway 33, Highway 23, and Highway 126. There is a network of County and city roads which provide access between the incorporated cities and the agricultural lands and rural communities of the County.

Scheduled commercial and private air travel is provided at the Oxnard Airport. There are also scheduled charter services and private air travel from Camarillo Airport and private services available at the Santa Paula Airport. Passenger rail service is available via Amtrak and Metrolink.

Community Memorial Hospital, Ventura County Medical Center, St. John's Regional Medical Center (Oxnard), Los Robles Hospital and Medical Center, and Simi Valley Hospital have FAA approved helipads. St. John's Pleasant Valley Hospital and Ojai Community Hospital do not have helipads, although a helicopter could land near the hospitals if necessary. Santa Paula Hospital has a helipad, however it is not FAA approved.

C. Demographics

In 2018, the population was 850,967. Approximately 43% are Hispanic.

Although Ventura is known as a highly desirable place to live for its physical beauty, the median household income is $59,379. The demographics of the County indicate that there are many concentrated low-income areas. Census reports show that 9.3% of the County residents live at or below the poverty level (compared with 13.2% of the State population).

In 2018 the population over 65 years of age in Ventura County was 15.6%, which has increased from 10.9% in 2010. As the population of Ventura County continues to age, there will be an increased demand for EMS services in the over 65 age group.

D. Epidemiology

Data from the Vital Records Department of Public Health show that the major causes of death in Ventura County are from cancer and heart disease, which is consistent with the trend throughout California and the United States. The following is a summary from the Automatic Vital Statistics System for Ventura County of the top four causes of death for years 2015-2017.

1. Cancer
2. Heart Disease
3. Alzheimer's Disease
4. Cerebrovascular Disease (Stroke)

E. EMS Dispatch

EMS dispatching for Ventura County is provide for and coordinated through the Ventura County Fire Communications Center.

F. Emergency Medical Care Resources

1. Prehospital

Private and public EMS providers cover the County. Advanced Life Support (ALS) ambulance response is supported by simultaneous dispatch of Advanced Life Support (ALS) and/or Basic Life Support (BLS) first responder fire department personnel.

Table 1. Advanced Life Support Providers

Name/Address	No of Units	Trans-port Units	Service Area	EMS Responses 2016		EMS Responses 2017		EMS Responses 2018	
ALS				Responses	Transports	Responses	Transports	Responses	Transports
American Medical Response	19	19	2,3,4,5,7	37,872	28,794	39,238	29,967	38,047	28,909
Gold Coast Ambulance	6	6	6	15,014	11,357	15,114	11,677	16,163	12,241
Lifeline Medical Transport	3	3	1	2,046	1,483	2,499	1,609	2,420	1,523
Ventura County Sheriff Air Unit	1	1	All	125	40	86	32	74	30
Fillmore Fire Department	1	0	Fil City	1005	0	1,155	0	1,071	0
Ventura City Fire Dept.	7	0	Vta City	11,687	0	11,694	0	10,995	0
Ventura County Fire Dept.	14	0	Vta Cnty	29,168	0	30,347	0	31,030	0
Oxnard Fire Department	1	0	Oxnard City	3893	0	14,820	0	15,554	0
County-Wide Total	**32**	**24**		**60,377**	**41,674**	**65,328**	**43,285**	**65,173**	**42,703**

Each of the acute care facilities in the County acts as a Receiving Hospital (RH) for the prehospital providers. Base Station services are provided by four hospitals via a contract between the facility and VC EMS. Each Base Hospital (BH) is required to have a Medical Director and a Prehospital Care Coordinator (PCC).

Table 2. Ventura County Hospitals

Name/Address	No. of Beds	No of ICU Beds	No of PED. Beds	Base Hospital	Receive Hospital	NUMBER OF ER Visits 2016	2017	2018	SRC or SRH	Expires
Community Memorial Loma Vista & Brent Ventura, CA 93003	254	28	8	No	Yes	48,434	49,958	49,742	SRC	6/30/22
Los Robles Hospital 215 W. Janss Road Thousand Oaks, CA 91360	382	30	10	Yes	Yes	50,541	51,567	51,659	SRC	6/30/22
Adventist Health Simi Valley 2975 N. Sycamore Drive Simi Valley, CA 93065	144	24	0	Yes	Yes	36,440	37,155	36,369	SRC	6/30/22
St. John's Regional Medical Center 1600 N. Rose Avenue Oxnard, CA 93030	230	20	9	Yes	Yes	57,734	57,961	56,400	SRC	6/30/22
Ojai Valley Hospital 1306 Maricopa Highway Ojai, CA 93023	25	4	0	No	Yes	9,129	9,328	8,762	SRH	6/30/22
Santa Paula Hospital 825 N. 10th Street Santa Paula, CA 93060	49	6	0	No	Yes	15,736	15,799	15,353	SRH	6/30/22
St. Johns Pleasant Valley Hospital 2309 Antonio Avenue Camarillo, CA 93010	50	8	0	No	Yes	24,285	24,923	24,683	SRH	6/30/22
Ventura County Medical Center 3291 Loma Vista Road Ventura, CA 93003	150	12	10	Yes	Yes	38,490	38,945	40,202	SRH	6/30/22

- STEMI Patients identified (Table 3).

Table 3: Ventura County STEMI Patients who received PCI

Hospital	SRC/SRH	FP % Rate		Prehospital		Walk-In		% of Walk-in		#Transferred to SRC	
		2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
		FP/ STEMI Alert	FP/ STEMI Alert	PCI/ STEMI Alert	PCI/ STEMI Alert	PCI/ Code STEMI	PCI/ Code STEMI	Walk-in/ Total	Walk-in/ Total	PCI/ Trans	PCI/ Trans
Community Memorial Hospital	SRC	4/37 11%	1/35 3%	31/37 84%	29/35 83%	26/32 81%	19/20 95%	46%	36%	0	0
Los Robles Regional Medical Center	SRC	9/56 16%	12/47 26%	35/56 63%	38/47 60%	27/31 87%	31/42 74%	36%	47%	0	1/1 100%
Adventist Health Simi Valley	SRC	5/23 22%	7/24 29%	17/23 74%	13/24 54%	16/20 80%	18/20 90%	47%	45%	0	0
St John's Regional Medical Center	SRC	9/41 22%	6/38 16%	25/41 61%	25/38 66%	31/37 84%	15/22 68%	47%	37%	1/1 100%	1/1 100%
Ojai Valley Community Hospital	SRH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4/7 57%	5/8 63%
Santa Paula Hospital	SRH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15/16 94%	8/9 89%
St John's Pleasant Valley Hospital	SRH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	19/24 79%	11/16 69%
Ventura County Medical Center	SRH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10/15 67%	20/24 83%
Total		27/157 17%	26/144 18%	108/157 69%	95/144 66%	100/120 83%	83/104 80%	120/277 43%	104/248 42%	**48/63 76%**	**46/59 78%**

Section III System Design

A. Lead Agency

California statute assigns the responsibility to adopt and implement STEMI regulations, designate STEMI Receiving Centers, establish data collection systems and monitor STEMI care performance to the local EMS Agency. The lead agency for EMS and the STEMI care system in Ventura County is the Ventura County EMS Agency. VC EMS staff and EMS Medical Director will be responsible for administering the plan and coordinating activities of the STEMI care system and integrating this system with all components of the EMS system.

As the lead agency for Ventura County's EMS and STEMI care system, VC EMS is responsible for planning, implementing and managing the STEMI care system. These responsibilities include but are not limited to:

a. Assessing needs and resource requirements of the County.
b. Assigning roles to system participants.
c. Monitoring the STEMI registry data system.
d. Establishing a prehospital data collection system that is capable of interfacing with the STEMI Registry.
e. Monitoring the system to determine compliance with appropriate law, regulations, policies, procedures and contracts.
f. Evaluating the impact of the system and revising the system design as needed.

To fulfill these responsibilities, VC EMS has hired staff to do the monitoring and oversight of the STEMI care system. VC EMS will oversee the Continuous Quality Improvement processes.

B. STEMI Center Fees

VC EMS has developed a fee structure that covers the direct cost of the designation process and to effectively monitor and evaluate the STEMI care system.

C. STEMI Committee

The STEMI Committee was created as a function of the planning process and continues as a part of this plan. It provides for countywide input of knowledgeable individuals and organizations into the discussion and resolution of STEMI system issues. It also fosters communication between VC EMS and various groups with an interest in the County's STEMI system. This committee meets three times a year.

The functions of the STEMI Committee are:

a. Conduct assessment of the STEMI system needs and resources in the County.
b. Provide overall direction and coordination to for policy making and program oversite.
c. Analyze the results of data collection and the monitoring system.
d. Present Case Studies for review and quality improvement.

D. Medical Control

Medical control and direction of the STEMI system is an essential ingredient of the Ventura County STEMI Plan and is the overall responsibility of the local EMS Medical Director. Medical control includes medical supervision of prehospital care services and the provision of medical supervision of the overall STEMI System Plan and ongoing monitoring.

Each of the acute care facilities in the County acts as a Receiving Hospital (RH) for the prehospital providers. Base Hospital (BH) services are provided via contract between four hospitals and VC EMS. Each BH is required to have a Medical Director and a PCC.

Section IV System Operational Components

A set of policies have been developed which directs the STEMI system to provide a clear understanding of the structure of the system and manner in which the system utilizes the resources available to it.

A. Prehospital System

Prehospital personnel in Ventura County are trained in treatment and triage protocols. The STEMI system policies will include the following: STEMI patient care coordination within the STEMI system; early notification of impending arrival at a STEMI Receiving Center; coordination with all healthcare organizations to facilitate transfer of patients; Cath lab equipment; availability of a STEMI team; criteria for activation of a STEMI team; mechanism for prompt availability of specialists; quality improvement and system evaluation; and criteria for STEMI triage, including destination.

B. Hospital System

1. Current System

There are four SRCs and four SRHs in Ventura County.

2. Mutual Aid and Relation to Other STEMI Systems

VC EMS works with the neighboring EMS Agencies in Santa Barbara County and Los Angeles County for mutual aid to ensure patient needs and inter-system needs are met.

3. Patient Flow

Patient destination decisions will be made on a patient-specific basis. This decision will consider distance, weather, traffic and other factors that may affect transport time.

(a) Prehospital Transportation

For patients who meet STEMI triage criteria, the prehospital care team will determine appropriate destination and whether ground or air transport is used. This will require consideration of ground transport time, air transport time (including response time if the helicopter is not on-scene), weather, traffic and other factors.

Ground transport times for most of the County is less than 20 minutes. In areas with prolonged transport times, such as the far northern County and portions of the Santa Clara River Valley, air resources are utilized as appropriate.

(b) Interfacility Transfers

STEMI Receiving Centers and STEMI Referral Hospitals have developed transfer procedure criteria agreements based on their capabilities and resources. Patients who require treatment not available at the receiving hospital, will be transferred expeditiously to the appropriate facility. This may include out-of-county facilities. All transfer agreements must comply with Joint Commission standards and California State regulations.

(c) Saturation Levels

If the situation arises when the Cath lab is unavailable, or no cardiologists are available, the SRC may go on SRC diversion via ReddiNet. ROSC patients however are not diverted.

Section V System Evaluation

A. Data Collection

Currently VC EMS is using Get With The Guidelines-Coronary Artery Disease (GWTG-CAD) Registry for hospitals. Data elements from the STEMI registry are reviewed and maintained by VC EMS for overall monitoring of the system. Specific patient and physician identifiers are stripped from the data to assure confidentiality. CAD contains the recommended minimum data as set forth by the American Heart Association and The Joint Commission and incorporates details from arrival through discharge. All prehospital ALS providers utilize a standardized paramedic care report in Image Trend. VC EMS collects data electronically from all ALS and BLS service providers through Image Trend and reports State Core Measures related to STEMI care using CEMSIS.
VC EMS is accountable for regular ongoing analysis and interpretation of the STEMI data. The Agency provides ongoing feedback through regular reporting and presents benchmarking goals on data elements at the STEMI Committee meetings.

The periodic performance evaluation of the STEMI care system includes, but is not limited to, a review of the following:

I. System design

2. Adequacy of out-of hospital care, at least in so far as can be determined by:
   a. Out-of-hospital time, including:
      (l) On scene time
      (2) Accuracy of ECG interpretation
      (3) Appropriateness of out of hospital care, including type and amount of intervention
      (4) Patient contact to ECG performed within 10 min
      (4) Early notification of Code STEMI within 10 min
   b. Appropriateness of receiving hospital selection
   c. ROSC patients with POS STEMI ECG

3. Verification that designated SRCs are fulfilling their STEMI care system responsibilities.

4. Hospitals, including:
   a. STEMI activations and specialist notifications
   b. Percutaneous coronary intervention, times and outcomes
   c. Door to balloon time within 90 min
   d. Door to ECG within 10 min
   e. Patient transfers from SRH to SRC with regard to their appropriateness and patient outcome
   f. SRH door to discharge time within 30 minutes for transfers to SRC.
   g. SRC diversion hours

VC EMS currently monitors STEMI cases and patient outcomes through the STEMI Registry, and presents this data on a regular basis to the STEMI Committee. VC EMS and the STEMI Committee have the responsibility to review STEMI cases with patient outcomes and to revise STEMI Policies and procedures as necessary for progressive improvement of STEMI care.

Section VI Appendices

A. Summary of Related STEMI Policies

1. **VC EMS Policy 107: Ventura County Stroke and STEMI Committees**
   Defines the purpose and voting rights of these committees

2. **VC EMS Policy 402: Patient Diversion/Emergency Department Closures**
   Defines procedure in which a hospital may divert patients away from their emergency department.

3. **VC EMS Policy 420: Receiving Hospital Standards**
   Defines criteria which shall be met by an acute care hospital in Ventura County for Receiving Hospital (RH) designation.

4. **VC EMS Policy 430: STEMI Receiving Centers and STEMI Referral Hospital Standards**
   Defines the criteria for being designated as an SRC or an SRH.

5. **VC EMS Policy 440: Code STEMI Transfer of Patients with STEMI for PCI**
   Defines the transfer process for a Code STEMI by which patients with a STEMI are transferred to a STEMI Receiving Center (SRC) for emergency percutaneous coronary intervention (PCI).

6. **VC EMS Policy 705.09: Chest Pain-Acute Coronary Syndrome**
   Defines the protocol for EMS prehospital personnel to assess, treat and triage patient into the STEMI system.

7. **VC EMS POLICY 726: 12 Lead ECG**
   Define the indications, procedure, and documentation for obtaining 12 lead ECGs.

Appendix A

COUNTY OF VENTURA HEALTH CARE AGENCY	EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES
Policy Title: Ventura County Stroke and STEMI Committees	Policy Number 107
APPROVED: Administration: Steve L. Carroll, Paramedic	Date: September 14, 2018
APPROVED: Medical Director: Daniel Shepherd, M.D.	Date: September 14, 2018
Origination Date: August 9, 2018 Date Revised: Date Last Reviewed: Review Date: August 31, 2019	Effective Date: September 14, 2018

I. Committee Name

The name of these committees shall be the Ventura County (VC) Stroke Committee and the VC STEMI Committee.

II. Committee Purpose

The purpose of these committees shall be to provide input to the VC Emergency Medical Services (EMS) Medical Director and VC EMS administration on matters pertaining to the VC Stroke Specialty System and the VC STEMI Specialty System.

III. Membership

A. Voting Membership

Voting membership in the committee shall be composed of 2 representatives (see chart below) Alternatives will be considered on a case by case basis.

Type of Organization	Member	Member
Acute Stroke Centers (ASC)	Stroke Coordinator	Physician
Non-ASC receiving centers	ED Manager or PCC	Physician

STEMI Receiving Centers	STEMI Coordinator	Physician
STEMI Referral Hospitals	ED Manager or PCC	Physician
Fire	Clinical manager or QI director	Senior Administrator or Medical Director
Ambulance Companies	Clinical manager or QI manager	Senior Administrator or Medical Director
VCEMSA	Administrator	Medical Director

B. Non-voting Membership

Non-voting members of the committee shall be composed of stakeholders from local agencies.

C. Membership Responsibilities

Representatives to the Stroke Committee and STEMI Committee represent the views of their agency. Representatives should ensure that agenda items have been discussed/reviewed by their agency prior to the meeting.

D. Voting Rights

Designated voting members shall have equal voting rights.

E. Attendance

1. Members shall remain as active voting members by attending 75% (Stroke) and 66% (STEMI) of the meetings in a (calendar) year. If attendance falls below these percentages, the organization administrator will be notified, and the member may lose the right to vote.

   (a) Members may have a single designated alternate attend in their place, no more than two times (Stroke) and one time (STEMI) per calendar year.

   (b) Agencies may designate one representative to be able to vote for both representatives, no more than two times (Stroke) and one time (STEMI) per calendar year.

2. The member whose attendance falls below these percentages, may regain voting status by attending two consecutive meetings.

3. If meeting dates are changed or cancelled, members will not be penalized for not attending.

IV. Officers

A. The chairperson of the Stroke Committee and the STEMI Committee is the VCEMSA Medical Director. The chairperson shall perform the duties prescribed by the guidelines outlined in this policy.

V. Meetings

A. Regular Meetings

The Stroke Committee will meet quarterly, and the STEMI Committee will meet once every 4 months. VCEMS will prepare and distribute the meeting agenda no later than one week prior to a scheduled meeting.

B. Special Meetings

Special meetings may be called by the VC EMS Medical Director, VC EMS Administrator or Public Health Director. Except in cases of emergency, seven (7) days' notice shall be given.

C. Quorum

The presence a simple majority (1/2 of committee membership plus 1) of voting members shall constitute a quorum. The presence of a quorum at the beginning of the meeting shall allow the committee to continue to do business until adjournment, regardless of the number of members who leave during the meeting.

VI. Task Forces and Ad-hoc Committees

The VC EMS Medical Director (committee chair), VC EMS Administrator, or Public Health Director may appoint task forces or ad-hoc committees to make recommendations to the Stroke or STEMI Committee on particular issues. The person appointing the task force or ad-hoc committee will name the chair. A task force or ad-hoc committee shall be composed of at least three (3) members and no more than seven (7) individuals. Persons other than voting members may be appointed to task forces or ad-hoc committees.

VII. Calendar Year

The Stroke and STEMI Committee will operate on a calendar year

VIII. Parliamentary Authority

The rules contained in the current edition of Robert's Rules of Order, newly revised, shall govern the organization in all cases to which they are applicable and in which they are not inconsistent with these guidelines, and any special rules of order the Stroke Committee may adopt.

IX. Submission of Agenda Items

Agenda items shall be received by the Ventura County EMS Office 14 days before the meeting it is to be presented. Items may be submitted by US mail, fax or e-mail and must include the following information:

A. Subject

B. Reason for request

C. Description/Justification

D. Supporting medical information/other research as applicable

E. List of affected VC EMS policies, if a requested policy change

F. Agenda Category:

1. Operational

2. Medical

Appendix B

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, 2019
APPROVED: Medical Director: Daniel Shepherd, MD	Date: December 1, 2019
Origination Date: January 1990 Revised Date: October 10, 2019 Date Last Reviewed: October 10, 2019 Review Date: October 31, 2022	Effective Date: December 1, 2019

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.

6. STEMI Receiving Center (SRC) Closed

Hospital is unable to accept a "STEMI Alert" patient or an "ELVO Alert" patient due to unavailability of their Cath lab or Cath lab staff. ROSC patients will not be diverted.

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 Medical Center, Santa Paula Memorial Hospital

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. John's Regional Medical Center, Los Robles Regional Medical Center, Simi Valley Hospital, Ventura County Medical Center, Community Memorial Hospital
6. **Area 6** (Oxnard): St. John's 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. John's 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.

Appendix C

COUNTY OF VENTURA EMERGENCY MEDICAL SERVICES		HEALTH CARE AGENCY POLICIES AND PROCEDURES
Policy Title: Receiving Hospital Standards		Policy Number 420
APPROVED Administration:	Steven L. Carroll, Paramedic	Date: September 1, 2018
APPROVED Medical Director:	Daniel Shepherd, MD	Date: September 1, 2018
Origination Date: April 1, 1984 Date Revised: August 9, 2018 Date Last Reviewed: August 9, 2018 Review Date: August 31, 2021		Effective Date: September 1, 2018

I. PURPOSE: To define the criteria, which shall be met by an acute care hospital in Ventura County for Receiving Hospital (RH) designation.

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 RH , approved and designated by the Ventura County, shall:

1. Be licensed by the State of California as an acute care hospital.
2. Meet the requirements of the Health and Safety Code Sections 1250-1262 and Title 22, Sections 70411, 70413, 70415, 70417, 70419, 70649, 70651, 70653, 70655 and 70657 as applicable.
3. Be accredited by a CMS accrediting agency.
4. Operate an emergency department (ED) that is designated by the State Department of Health Services as a "Comprehensive Emergency Department," "Basic Emergency Department" or a "Standby Emergency Department."
5. Operate an Intensive Care Unit.
6. Have the following specialty services available at the hospital or appropriate referral hospital (at the discretion of the Emergency Department Physician. and consultant Physician.) within 30 minutes:

Cardiology	Anesthesiology	Neurosurgery
Orthopedic Surgery	General Surgery	General Medicine
Thoracic Surgery	Pediatrics	Obstetrics

7. Have operating room services available within 30 minutes.

8. Have the following services available within 15 minutes.

   X-ray Laboratory Respiratory Therapy

9. Evaluate all ambulance transported patients promptly, either by RH Physician, Private Physician or other qualified medical personnel designated by hospital policy.
10. Have the capability at all times to communicate with the ambulances and the Base Hospital (BH).
11. Designate a ED Medical Director who shall be a physician on the hospital staff, licensed in the State of California and have experience in emergency medical care. The Medical Director shall:
    a. Be regularly assigned to the ED.
    b. Have knowledge of VCEMS policies and procedures.
    c. Coordinate RH activities with BH, Prehospital Services Committee (PSC), and VCEMS policies and procedures.
    d. Attend, or have designee attend, PSC meetings.
    e. Provide ED staff education.
    f. Schedule medical staffing for the ED on a 24-hour basis.
12. Agree to provide, at a minimum, on a 24-hour basis, a physician and a registered nurse (RN) that meets the following criteria:
    a. All Emergency Department physicians shall:
       1) Be immediately available to the Emergency Department at all times.
       2) Be certified by the American Board of Emergency Medicine OR the American Osteopathic Board of Emergency Medicine OR be Board eligible OR have all of the following:
          a) Have and maintain current Advanced Cardiac Life Support (ACLS) certification.
          b. Have and maintain current Advanced Trauma Life Support (ATLS) certification.
          c) Complete at least 25 Category I CME hours per year with content applicable to Emergency Medicine.
    b. RH EDs shall be staffed by:
       1) Full-time staff: those physicians who practice emergency medicine 120 hours per month or more, and/or

2) Regular part-time staff: those physicians who see 90 patients or more per month in the practice of emergency medicine.
   a) Formula: Average monthly census of acute patients divided by 720 hours equals average number of patients per hour. This figure multiplied by average hours worked by physician in emergency medicine equals patients per physician per month.
   b) Physicians working in more than one hospital may total their hours.
   c) Acute patients exclude scheduled and return visits, physicals, and patients not seen by the ED Physician.
   d) During period of double coverage, the whole shall be met if one of the physicians meets the above standards.

c. All RH RNs shall:
   1) Be regular hospital staff assigned solely to the ED for that shift.
   2) Maintain current ACLS certification.

d. All other nursing and clerical personnel for the Emergency Department shall maintain current Basic Cardiac Life Support certification.

e. Sufficient licensed personnel shall be staffed to support the services offered.

13. Cooperate with and assist the PSC and EMS Medical Director in the collection of statistics for program evaluation.
14. Agree to maintain all prehospital data in a manner consistent with hospital data requirements and provide that the data be integrated with the patient's chart. Prehospital data shall include the Ventura County Electronic Patient Care Report (VCePCR), Paramedic Base Hospital communication form (from the BH), and documentation of a BH telephone communication with the RH.
15. Participate with the BH in evaluation of paramedics for reaccreditation.
16. Permit the use of the hospital helipad as an emergency rendezvous point if a State-approved helipad is maintained on hospital premises.

B. There shall be a written agreement between the RH and EMS indicating the commitment of hospital administration, medical staff, and emergency department staff to meet requirements for ALS program participation as specified by EMS policies and procedures.

C. EMS shall review its agreement with each RH at least every two years.

D. EMS may deny, suspend, or revoke the approval of a RH for failure to comply with any applicable policies, procedures, or regulations. Requests for review or appeal of such decisions shall be brought to the Board of Supervisors for appropriate action.

E. The EMS Medical Director may grant an exception to a portion of this policy upon substantiation of need by the PSC that, as defined in the regulations, compliance with the regulation would not be in the best interests of the persons served within the affected local area.

F. A hospital that applies to become a RH in Ventura County must meet Ventura County RH Criteria and agree to comply with Ventura County regulation.

1. Application:
   Eligible hospital shall submit a written request for RH approval to the VCEMS, documenting the compliance of the hospital with the Ventura County RH.
2. Approval:
   Program approval or denial shall be made in writing by EMS to the requesting RH within a reasonable period of time after receipt of the request for approval and all required documentation. This period shall not exceed three (3) months.

G. ALS RHs shall be reviewed every two years.

1. All RH shall receive notification of evaluation from the EMS.
2. All RH shall respond in writing regarding program compliance.
3. On-site visits for evaluative purposes may occur.
4. Any RH shall notify the EMS by telephone, followed by a letter within 48 hours, of changes in program compliance or performance.

H. Paramedics providing care for emergency patients with potentially serious medical conditions, and are within the catchment area of a hospital with a standby emergency department, shall make immediate base contact for destination determination. Examples of these patients would include, but are not limited to, patients with:

1. Patients with seizure of new onset, multiple seizures within a 24-hour period, or sustained alteration in level of consciousness
2. Chest pain or discomfort of known or suspected cardiac origin
3. Sustained respiratory distress not responsive to field treatment
4. Suspected pulmonary edema not responsive to field treatment
5. Potentially significant cardiac arrhythmias
6. Orthopedic emergencies having open fractures, or alterations of distal neurovascular status

7. Suspected spinal cord injury of new onset
8. Burns greater than 10% body surface area
9. Drowning or suspected barotrauma with any history of loss of consciousness, unstable vital signs, or respiratory problems
10. Criteria that meet stroke, STEMI, or trauma criteria for transport to a specialty care hospital

I. A RH with a standby emergency department only, offering "standby emergency medical service," is considered to be an alternative receiving facility. Patients may be transported to a standby emergency department when the use of the facility is in the best interest of patient care.

1. Patients that require emergent stabilization at an emergency department may be transported to a standby emergency department if a basic emergency facility is not within a reasonable distance. These would include patients:
   a. In cardiac arrest with NO return of spontaneous circulation (ROSC) in the field
   b. With bleeding that cannot be controlled
   c. Without an effective airway
2. 3. During hours of peak traffic, the Base Hospital MICN should make destination determinations based on predicted travel time and patient condition. Patients who meet criteria for trauma, stroke, or STEMI in the absence of a condition that meets I.1. above, will be directed to the appropriate destination.
4. A RH with a standby emergency department shall report to Ventura County EMS Agency any change in status regarding its ability to provide care for emergency patients.

COUNTY OF VENTURA
EMERGENCY MEDICAL SERVICES

RECEIVING HOSPITAL
CRITERIA COMPLIANCE CHECKLIST

Receiving Hospital: ____________________ Date: _______________

		YES	NO
A.	Receiving Hospital (RH), approved and designated by the Ventura County , shall:		
1.	Be licensed by the State of California as an acute care hospital.		
2.	Meet the requirements of the Health and Safety Code Section 1250-1262 and Title 22, Sections 70411, 70413, 70415, 70417, 70419, 70649, 70651, 70653, 70655 and 70657 as applicable.		
3.	Be accredited by a CMS accrediting agency		
4.	Operate an Intensive Care Unit.		
5.	Have the following specialty services available at the hospital or appropriate referral hospital (at the discretion of the Emergency Department (ED) Physician. and consultant Physician.) within 30 minutes:		
	• Cardiology		
	• Anesthesiology		
	• Neurosurgery		
	• Orthopedic Surgery		
	• General Surgery		
	• General Medicine		
	• Thoracic Surgery		
	• Pediatrics		
	• Obstetrics		
6.	Have operating room services available within 30 minutes.		
7.	Have the following services available within 15 minutes.		
	• X-Ray		
	• Laboratory		
	• Respiratory Therapy		
8.	Evaluate all ambulance transported patients promptly, either by RH Physician, Private Physician or other qualified medical personnel designated by hospital policy.		
9.	Have the capability at all times to communicate with the ambulances and the BH.		
10.	Designate an Emergency Department Medical Director who shall be a physician on the hospital staff, licensed in the State of California and have experience in emergency medical care. The Medical Director shall:		
	a. Be regularly assigned to the Emergency Department.		
	b. Have knowledge of VC EMS policies and procedures.		

	YES	NO
c. Coordinate RH activities with Base Hospital, Prehospital Services Committee (PSC), and VCEMS policies and procedures.		
d. Attend or have designee attend PSC meetings.		
e. Provide Emergency Department staff education.		
f. Schedule medical staffing for the ED on a 24-hour basis.		
11. Agree to provide, at a minimum, on a 24-hour basis, a physician and a registered nurse that meets the following criteria:		
a. All Emergency Department physicians shall:		
1). Be immediately available to ED at all times.		
2) Be certified by the American Board of Emergency Medicine OR the American Osteopathic Board of Emergency Medicine OR be Board eligible OR have all of the following:		
a). Have and maintain current Advanced Cardiac Life Support (ACLS) certification.		
b) Have and maintain current Advanced Trauma Life Support (ATLS)certification.		
c) Complete at least 25 Category I CME hours per year with content applicable to Emergency Medicine.		
b. RH EDs shall be staffed by:		
1). Full-time staff: those physicians who practice emergency medicine 120 hours per month or more, and/or		
2) Regular part-time staff: those physicians who see 90 patients or more per month in the practice of emergency medicine.		
a) Formula: Average monthly census of acute patients divided by 720 hours equals average number of patients per hour. This figure multiplied by average hours worked by physician in emergency medicine equals patients per physician per month		
b) Physicians working in more than one hospital may total their hours		
c) Acute patients exclude scheduled and return visits, physicals, and patients not seen by the ED Physician		

	YES	NO
d) During period of double coverage, the whole shall be met if one of the physicians meets the above standards.)		
c. All RH RNs shall:		
1) Be regular hospital staff assigned solely to the ED for that shift.		
2) Maintain current ACLS certification.		
d. All other nursing and clerical personnel for the ED shall maintain current Basic Cardiac Life Support certification.		
e. Sufficient licensed personnel shall be utilized to support the services offered.		
12. Cooperate with and assist the PSC and EMS Medical Director in the collection of statistics for program evaluation.		
13. Agree to maintain all prehospital data in a manner consistent with hospital data requirements and provide that the data be integrated with the patient's chart. Prehospital data shall include the VCePCR, paramedic Base Hospital communication form (from the BH), and documentation of a BH telephone communication with the RH.		
14. Participate with the BH in evaluation of paramedics for reaccreditation.		
15. Permit the use of the hospital helipad as an emergency rendezvous point if a State-approved helipad is maintained on hospital premises.		
B. There shall be a written agreement between the RH and EMS indicating the commitment of hospital administration, medical staff, and emergency department staff to meet requirements for employment as specified by EMS policies and procedures.		

COUNTY OF VENTURA
EMERGENCY MEDICAL SERVICES

RECEIVING HOSPITAL PHYSICIAN
CRITERIA COMPLIANCE CHECKLIST

Physician Name: ____________________ Date: _______________

All Emergency Department physicians shall:	YES	NO
1. Be immediately available to the RH ED at all times.		
2. Be certified by the American Board of Emergency Medicine OR the American Osteopathic Board of Emergency Medicine OR be Board eligible OR have all of the following:		
a. Have and maintain current ACLS certification.		
b. Complete at least 25 Category I CME hours per year with content applicable to Emergency Medicine.		
c. Have and maintain current Advanced Trauma Life Support (ATLS) certification.		

The above named physician is:

1) Full-time staff: A physician who practices emergency medicine 120 hours per month or more, and/or		
2) Regular part-time staff: A physician who see 90 patients or more per month in the practice of emergency medicine (Average monthly census of acute patients divided by 720 hours equals average number of patients per hour. This figure multiplied by average hours worked by physician in emergency medicine equals patients per physician per month, Physicians working in more than one hospital may total their hours, Acute patients exclude scheduled and return visits, physicals, and patients not seen by the ED Physician)		

COUNTY OF VENTURA
EMERGENCY MEDICAL SERVICES

RECEIVING HOSPITAL
STANDBY EMERGENCY DEPARTMENT
ADDITIONAL CRITERIA COMPLIANCE
CHECKLIST

Receiving Hospital w/Standby ED:_____________ Date: _______________

	EMS REVIEW	
The RH with standby ED has:	YES	NO
A. Medical staff, and the availability of the staff at various times to care for patients requiring emergency medical services.		
B. Ability of staff to care for the degree and severity of patient injuries or condition.		
C. Equipment and services available at the facility necessary to care for patients requiring emergency medical services and the severity of their injuries or condition.		
D. During the current 2-year evaluation period, has reported to Ventura County EMS Agency any change in status regarding its ability to provide care for emergency patients.		
E. Authorization by the Ventura County EMS Agency medical director to receive patients requiring emergency medical services, in order to provide for the best interests of patient care.		
COMMENTS		

Appendix D

<table>
<tr><td colspan="2">COUNTY OF VENTURA
HEALTH CARE AGENCY</td><td>EMERGENCY MEDICAL SERVICES
POLICIES AND PROCEDURES</td></tr>
<tr><td colspan="2">Policy Title:
STEMI Receiving Center (SRC) Standards and
STEMI Referral Hospital (SRH) Standards</td><td>Policy Number
430</td></tr>
<tr><td colspan="2">APPROVED:
Administration: Steven L. Carroll, Paramedic</td><td>Date: Dec. 1, 2019</td></tr>
<tr><td colspan="2">APPROVED:
Medical Director: Daniel Shepherd, M.D.</td><td>Date: Dec. 1, 2019</td></tr>
<tr><td>Origination Date: July 28, 2006
Date Revised: August 8, 2019
Last Review: August 8, 2019
Review Date: August 31, 2022</td><td colspan="2">Effective Date: December 1, 2019</td></tr>
</table>

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, 100270.124 and 100270.125.

III. DEFINITIONS: Refer to California Code of Regulations, Title 22, Division 9, Chapter 7.1, Article 1.

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 an SRC in VCEMS Policy 440.
3. The hospital shall have established protocols for triage, diagnosis, and Cath lab activation following field notification.
4. The hospital shall have a single call activation system to activate the Cardiac Catheterization Team directly.
5. Written protocols shall be in place for the identification of STEMI patients.
   - At a minimum, these written protocols shall be applicable in the ICU/Coronary Unit, Cath lab, and the Emergency Department.

6. The hospital shall be available for treatment of STEMI patients 24 hours per day, 7

days a week, 365 days per year.

7. The hospital shall have a process in place for the treatment and triage of simultaneous arriving STEMI patients.
8. SRCs shall comply with the requirements for an annual minimum volume of procedures (25) required for designation by VCEMS.
9. The hospital shall have a STEMI program manager and a STEMI medical director.
10. The hospital shall have job descriptions and organizational structure clarifying the relationship between the STEMI medical director, STEMI program manager, and the STEMI team.
11. Operate a cardiac catheterization lab licensed by the Department of Health Services and approved for emergency percutaneous coronary interventions.
12. A STEMI receiving center without cardiac surgery capability on-site shall have a written transfer plan and agreements for transfer to a facility with cardiovascular surgery capability.
13. The hospital shall maintain daily STEMI team and Cardiac Catheterization team call rosters
14. Have policies for patients to receive emergent angiography or emergent fibrinolysis, based on physician decisions for individual patients.
15. The hospital shall participate in the local EMS agency quality improvement processes related to a STEMI critical care system.
16. The hospital shall submit their data to the STEMI Registry System by the 15th of each month for the previous month patients.
17. Will accept all ambulance-transported patients if the interpretation on the monitor meets the manufacturer guidelines for a POS STEMI ECG, except when on internal disaster or no cardiac catheterization lab is available, regardless of ICU/CCU or ED saturation status.
18. Have policies and procedures that allow the automatic acceptance of any STEMI patient from a Ventura County Hospital upon notification by the transferring physician.
19. The Cardiac Catheterization Team, including appropriate staff, shall be immediately available.
20. Have policies in place for the transfer of STEMI patients.

B. A STEMI Referral Hospital (SRH), 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 an SRH in VCEMS Policy 440.
3. The hospital shall be available for treatment of STEMI patients 24 hours per day, 7 days a week, 365 days per year.
4. Written protocols shall be in place to identify STEMI patients and provide an optimal reperfusion strategy using fibrinolytic therapy.
5. The Emergency Department shall maintain a standardized procedure for the treatment of STEMI patients.
6. The hospital shall have a transfer process through interfacility transfer agreements and have pre-arranged agreements with EMS ambulance providers for rapid transport of STEMI patients to an SRC.
7. The hospital shall have a program to track and improve treatment of STEMI patients.
8. The hospital must have a plan to work with an SRC and VCEMS on quality improvement processes.

B. Designation

1. Application:
   Eligible hospitals shall submit a written request for SRC or SRH approval to the VC EMS, documenting the compliance of the hospital with Ventura County SRC or SRH Standards.
2. Approval:
   SRC or SRH 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 an SRC or SRH 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 and SRHs shall be reviewed every three years.
   a. SRCs or SRHs shall receive notification of evaluation from VCEMS.
   b. SRCs or SRHs shall respond in writing regarding program compliance.
   c. On-site SRC or SRH visits for evaluative purposes may occur.
   d. SRCs or SRHs shall notify VCEMS by telephone, followed by a letter or email within 48 hours, of changes in program compliance or performance.

Appendix E

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: December 1, 2019
APPROVED: Medical Director: Daniel Shepherd, MD	Date: December 1, 2019
Origination Date: July 1, 2007 Date Revised: August 8, 2019 Last Reviewed: August 8, 2019 Review Date: August 31, 2022	Effective Date: December 1, 2019

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, 100169, 100270.124 and 100270.125

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 has been designated 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 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.

Appendix F

Ventura County EMS
County Wide Protocols Policy 705.09

Chest Pain – Acute Coronary Syndrome

BLS Procedures

Administer oxygen if dyspnea, signs of heart failure or shock, or SpO2 < 94%
Assist patient with prescribed Nitroglycerin as needed for chest pain
- Hold if SBP less than 100 mmHg

ALS Standing Orders

Perform 12-lead ECG
- Expedite transport to closest STEMI Receiving Center if monitor interpretation meets the manufacturer guidelines for a positive STEMI ECG and/or physician states ECG is positive for STEMI.
- Notify Base hospital within 10 minutes of monitor interpretation of a positive STEMI ECG
- Document all initial and ongoing rhythm strips and ECG changes

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

IV/IO access
- 3 attempts only prior to Base Hospital contact

If pain persists and not relieved by NTG:
- **Morphine** – per policy 705 - Pain Control
  - Maintain SBP greater than 100 mmHg

If patient presents or becomes hypotensive:
- Lay Supine
- **Normal Saline**
  - IV/IO bolus – 500 mL -may repeat x1 for total 1000 mL.
    - Unless CHF is present

Communication Failure Protocol

One additional IV/IO attempt if not successful prior to initial BH contact
- 4 attempts total per patient

If hypotensive (SBP less than 90 mmHg) and signs of CHF are present or no response to fluid therapy:
- Epinephrine 10mcg/mL
  - 1mL (10mcg) q 2 minutes, slow IV/IO push
  - Titrate to SBP of greater than or equal to 90mm/Hg

Base Hospital Orders only

Consult ED Physician for further treatment measures

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

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

Effective Date: March 1, 2019 Date Revised: January 10, 2019
Next Review Date: January 30, 2021 Last Reviewed January 10, 2019

VCEMS Medical Director

Appendix G

COUNTY OF VENTURA EMERGENCY MEDICAL SERVICES	HEALTH CARE AGENCY POLICIES AND PROCEDURES
Policy Title 12 Lead ECG	Policy Number: 726
APPROVED: Administration: Steven L. Carroll, Paramedic	Date: August 1, 2019
APPROVED: Medical Director: Daniel Shepherd, MD	Date: August 1, 2019
Origination Date: August 10, 2006 Date Revised: July 11, 2019 Date Last Reviewed: July 11, 2019 Review Date: July 31, 2021	Effective Date: August 1, 2019

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 or acute exacerbation of one or more of the following symptoms that have no other clear identifiable cause:

1. Chest, upper back or upper abdominal discomfort.
2. Generalized weakness.
3. Dyspnea.
4. Symptomatic bradycardia
5. After successful cardioversion/defibrillation of sustained V-Tach (Policy 705.25)
6. Paramedic Discretion

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:

1. 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 SpO2 < 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, repeat to a total of 3.
4. Once an acceptable quality ECG is obtained, switch the monitor to the standard 4-lead function.
5. If the interpretation on monitor meets your manufacturer guidelines for a POS STEMI ECG, 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 interpretation on monitor meets your manufacturer guidelines for a POS STEMI ECG, notify base hospital within 10 minutes of interpretation. Report POS STEMI ECG to MICN along with the heart 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 the interpretation on monitor meets your manufacturer guidelines for a POS STEMI ECG, 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 interpretation on monitor meets your manufacturer guidelines for a POS STEMI ECG, and the underlying rhythm is Atrial Flutter or if the rate is above 140, the Base Hospital shall be notified at the beginning of the

report. The Cath Lab will not be activated.

5. If the interpretation on monitor meets your manufacturer guidelines for a POS STEMI ECG, 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 does **not have** an interpretation on monitor that meets your manufacturer guidelines for a POS STEMI ECG, 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 interpretation on monitor meets your manufacturer guidelines for a POS STEMI ECG, 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 interpretation on the ECG is positive for STEMI, the patient will be treated as a positive STEMI. If the ECG obtained by a physician does not indicate a STEMI by interpretation, and the physician is stating ***it is*** a STEMI, perform a repeat ECG once patient is in the ambulance. If EMS ECG is positive for STEMI, transport to SRC as a STEMI alert. If EMS ECG is negative for STEMI, transport to SRC, however no STEMI alert will be activated. If physician is ***not stating*** it is a STEMI, and EMS ECG is not positive for STEMI, then transport to nearest facility.

3. The original ECG performed by physician shall be obtained and accompany the patient.

4. 12 Lead ECG will be scanned, or a picture will be obtained and added as an attachment to the Ventura County electronic Patient Care Report

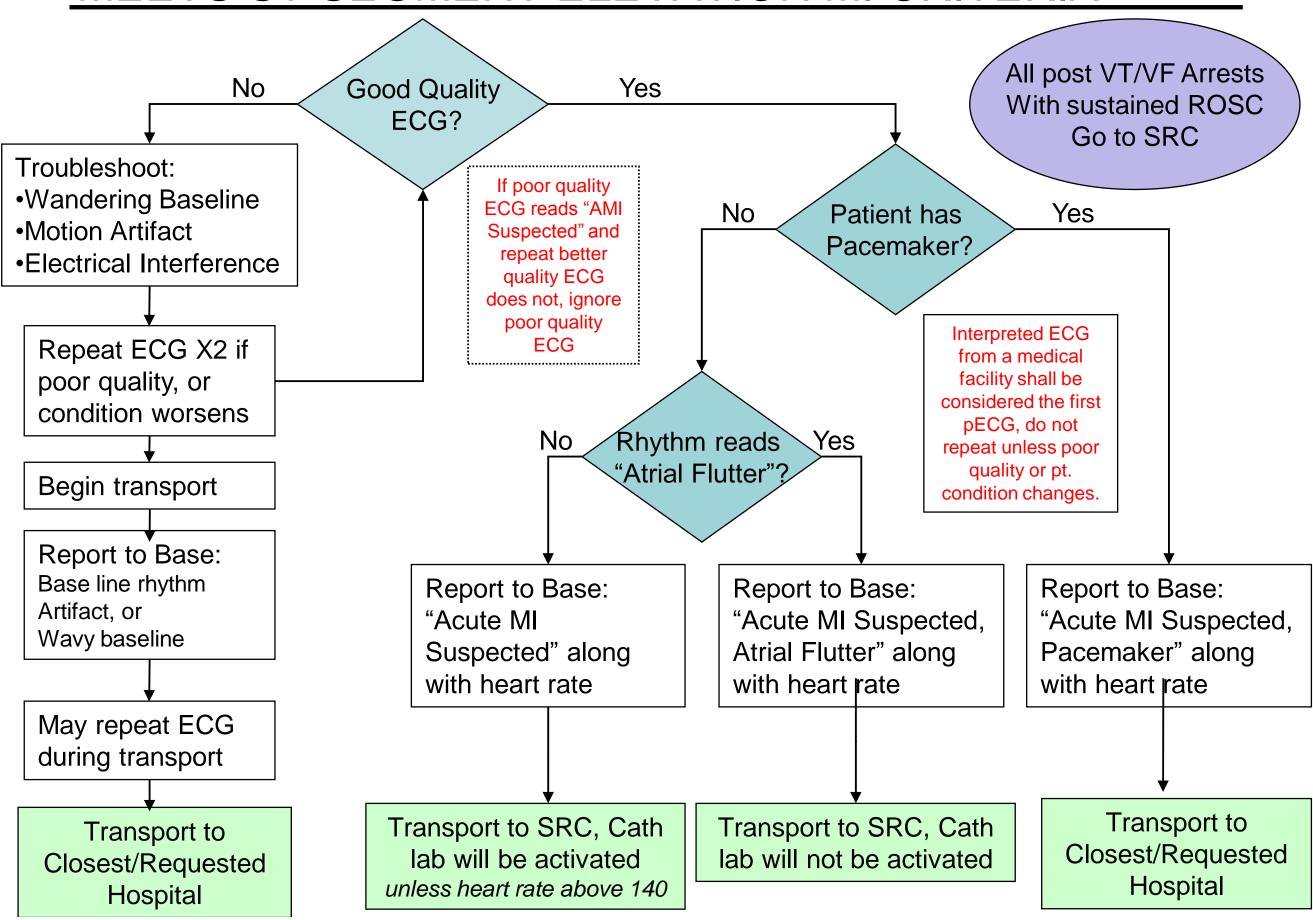
(VCePCR), in addition to being hand delivered to the receiving facility.

G. Documentation

1. 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

1. 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
MEETS ST SEGMENT ELEVATION MI CRITERIA
Good Quality ECG?
No
Yes
All post VT/VF Arrests With sustained ROSC Go to SRC
Troubleshoot:
•Wandering Baseline
•Motion Artifact
•Electrical Interference
If poor quality ECG reads “AMI Suspected” and repeat better quality ECG does not, ignore poor quality ECG
Patient has Pacemaker?
No
Yes
Repeat ECG X2 if poor quality, or condition worsens
Interpreted ECG from a medical facility shall be considered the first pECG, do not repeat unless poor quality or pt. condition changes.
Rhythm reads “Atrial Flutter”?
No
Yes
Begin transport
Report to Base: Base line rhythm Artifact, or Wavy baseline
Report to Base: “Acute MI Suspected” along with heart rate
Report to Base: “Acute MI Suspected, Atrial Flutter” along with heart rate
Report to Base: “Acute MI Suspected, Pacemaker” along with heart rate
May repeat ECG during transport
Transport to Closest/Requested Hospital
Transport to SRC, Cath lab will be activated unless heart rate above 140
Transport to SRC, Cath lab will not be activated
Transport to Closest/Requested Hospital