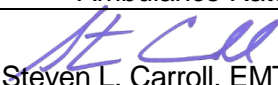


To: ALL VENTURA COUNTY EMS POLICY MANUAL HOLDERS

DATE: July 2, 2018

Policy Status	Policy #	Title/New Title	Notes
Replace	0112	Ambulance Rates	Updated to reflect rates for FY 2018-2019
Replace	0318	Requirements to Staff an ALS Unit	CE log updated
Replace	0703	Medical Control at Scene – Private Physician	Current physician card added
Replace	0705.07	Cardiac Arrest – Asystole and PEA	Updated language re: airway management
Replace	0705.08	Cardiac Arrest – VF/VT	Updated language re: airway management
Replace	0705.11	Crush Injury	Replaced Dopamine with appropriate Epinephrine dose
Replace	0705.12	Heat Emergencies	Added blood glucose monitoring language for BLS
Replace	0705.13	Cold Emergencies	New Title and added blood glucose monitoring language for BLS
Replace	0705.16	Neonatal Resuscitation	Updated epi concentration language to reflect current guidelines. Dosing did not change.
Replace	0710	Airway Management	Updated language re: pediatric intubation ref: Section III

.COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Ambulance Rates		Policy Number 112	
APPROVED: Administration:	 Steven L. Carroll, EMT-P	Date: July 1, 2018	
Origination Date:	1984	Effective Date: July 1, 2018	
Date Revised:	July 1, 2018		
Last Review:	July 1, 2018		
Review Date:	July 1, 2019		



- I. PURPOSE: To define the allowable ambulance rates for the County of Ventura.
- II. AUTHORITY: Ventura County Ambulance Ordinance.
- III. POLICY: The rates described in this policy shall be the maximum charged by the ambulance companies in Ventura County.
- IV. PROCEDURE: Ambulance rates are approved by the Board of Supervisors and are established based upon the cost to the ambulance operators to provide emergency ambulance service to the citizens of Ventura County. The rates listed are revised annually as needed, and are the maximum to be charged by all licensed ambulance companies to all users of the service. No rates shall be set, established, changed, modified or amended, unless according to the Ventura County Ambulance Ordinance.

Pursuant to Ventura County Ordinance Code Section 2423-3, the following constitutes the schedule of maximum rates that may be charged, effective July 1, 2018

NON-EMERGENCY & ADVANCED LIFE SUPPORT RATES

Charge	2018-19	Definition
Non-Emergency Base Rate	\$920.50	Transport from site of illness or injury to hospital or from hospital to home or other facility resulting from a non-emergency request.
Advanced Life Support Base Rate	\$1,757.00	Transport from site of illness or injury to hospital as the result of an emergency request or for provision of ALS level services during any request for service.
Specialty Care Transport Nurse Hourly Rate (Two hour minimum)	\$271.00	Rate per hour for providing a specially trained nurse to accompany a critically injured or ill patient during transport by a ground ambulance vehicle, which includes the provision of medically necessary supplies and services, at a level of service beyond the scope of the EMT-Paramedic.
Mileage	\$36.25	Rate per mile from point of pickup to hospital. This charge is pro rated among the patients if more than one (1) patient is transported.
Oxygen Administration	\$115.00	Charge made to patient for administration of oxygen and related adjuncts.

No charge is made for dispatch that is cancelled or that results in no provision of prehospital care.

Policy Title: ALS Response Unit Staffing	Policy Number: 318
APPROVED: Administration:  Steven L. Carroll, Paramedic	Date: July 1, 2018
APPROVED: Medical Director:  Daniel Shepherd, MD	Date: July 1, 2018
Origination Date: June 1, 1997 Date Revised: June 14, 2018 Date Last Reviewed: June 14, 2018 Review Date: June 30, 2021	Effective Date: July 1, 2018

- I. PURPOSE: To establish medical control standards for ALS response unit paramedic staffing.
- II. AUTHORITY: Health and Safety Code, Sections 1797.214, 1797.220, 1798, and 1798.200
22 CCR Division 9, Chapter 4, Sections 100175, 100179
- III. DEFINITIONS:
 - A. ALS Response Unit: First Response ALS Unit, Paramedic Support Vehicle, or ALS Ambulance per VCEMS Policies 506 and 508.
 - B. Definition of an ALS Patient Contact: A patient contact where the paramedic successfully performs an ALS skill listed in VCEMS Policy 310, with the exception of glucose testing, cardiac monitoring and pulse oximetry.
- IV. POLICY:
 - A. All ALS Response Units must be staffed with a minimum of one Level II paramedic who meets the requirements in this policy.
 - B. Additional ALS Response Unit staff may be a Level I or II paramedic meeting the requirements in this policy and/or an EMT meeting requirements in VCEMS Policy 306. An ALS response unit may be staffed with a non-accredited Paramedic only when it is also staffed with an authorized Field Training Officer (FTO) or Paramedic Preceptor, unless the non-accredited Paramedic is functioning in a BLS capacity in accordance with VCEMS Policy 306.
 - C. ALS Patient Contact: A patient contact where the paramedic successfully performs an ALS skill listed in VCEMS Policy 310, with the exception of glucose testing, cardiac monitoring and pulse oximetry.
 - D. Field Training Officer (FTO): An agency designation for those personnel qualified to train others for the purposes of EMT ALS-Assist Authorization, Paramedic Accreditation, Level I or Level II Paramedic Authorization/Re-Authorization.
 - E. Paramedic Preceptor: A Paramedic, as identified in California Code of Regulations, qualified to train Paramedic Student Interns. A Paramedic Preceptor may also be a Field Training Officer, when designated by that individual's agency.

V. PROCEDURE:

A. Level I

1. A paramedic will have Level I status upon completion of the following:
 - a. Current Paramedic Licensure by the State of California
 - b. Current Accreditation in the County of Ventura per VCEMS Policy 315.
2. To maintain Level I status, the paramedic shall:
 - a. Maintain employment with an approved Ventura County ALS service provider.
 - b. Complete a minimum of 288 hours of practice as a paramedic or 30 patient contacts (minimum of 15 ALS) every six-month period (January 1 – June 30 and July 1 – December 31);
 - 1) With the approval of the EMS Medical Director, for those paramedics with a minimum of 1 year of field experience in Ventura County, are employed as a field paramedic in another county or work in an acute care setting (RN or LVN) on a full-time basis, complete a minimum of 144 hours of practice, or 20 patient contacts (minimum 10 ALS), in the previous 6 month period in Ventura County.
 - c. Complete VCEMS continuing education requirements, as described in Section V.C.
3. If the paramedic fails to meet these requirements, s/he is no longer authorized as a Level I paramedic.
4. To be reauthorized as a Level I paramedic, the paramedic must complete a minimum of 48 hours as a second or third crewmember of direct field observation by an authorized Paramedic FTO, to include a minimum of 5 ALS contacts.

B. Level II

1. A paramedic will have Level II status upon completion of the following:
 - a. Employer approval.
 - b. All of the requirements of Level I.
 - c. A minimum of 240 hours of direct field observation by an authorized Ventura County Paramedic FTO.
 - 1) This will include a minimum of 30 patient contacts, (minimum 15 ALS contacts).
 - 2) If a paramedic has a minimum of 4000 hours of prehospital field experience performing initial ALS assessment and care, Paramedic FTO with the approval of the Paramedic FTO and PCC may be reduced to 144 hours or 20 patient contacts (minimum 10 ALS).
 - d. Approval by the paramedic FTO who evaluated most of the contacts.

- e. Successful completion of competency assessments:
 - 1) Scenario based skills assessment conducted by the candidate's preceptor, Provider's clinical coordinator, PCC and PLP when possible.
 - 2) Written policy competency and arrhythmia recognition and treatment assessment administered by VCEMS. Minimum Passing score will be 80% on each assessment.
 - 3) Candidates who fail to attain 80% on either section V.B.e.2)-3) shall attend a remediation session with the Base Hospital PLP or designee or the provider's Medical Director prior to retaking either assessment. Written documentation of remediation will be forwarded to VCEMS.
 - f. Obtain favorable recommendations of the PCCs who have evaluated the paramedic during the upgrade process. The PCC's recommendations will be based upon a review of the completed performance evaluation standards, review of patient contacts and direct clinical observation.
 - 1) Delays in arranging or scheduling direct field observation shift(s) should not delay the Level II upgrade process. In the event an observation shift cannot be arranged with the PCC by the end of the 240 hour upgrade process, the observation requirement may be waived with VCEMS approval. Every attempt should be made to schedule this observation in advance, and conduct the shift prior to the completion of the 240 hour upgrade process.
 - g. Forward Appendix A, Appendix B and copies of the 30 patient contacts to VCEMS.
 - 1) Appendix A shall include all dates and times the upgrading paramedic has spent with the Paramedic FTO to total a minimum of 240 hours.
 - 2) Appendix B shall be completed each shift per the Method of Evaluation Key at the bottom of the form.
 - 3) Submit 30 patient contacts, 15 meeting criteria as defined in Section III, Definitions, ALS Patient Contact.
2. To maintain Level II status, the paramedic shall:
- a. Maintain employment with an approved Ventura County ALS service provider.
 - b. Function as a paramedic for a minimum of 576 hours or have a minimum of 60 patient contacts (minimum 30 ALS), over the previous six-month period (January 1 – June 30 and July 1 – December 31).
 - 1) For those paramedics with a minimum of 3 years field experience, no more than 144 hours of this requirement may be met by documentation of actual instruction at approved PALS, PEPP, ACLS, PHTLS, BTLS, EMT or Paramedic training programs.

- 2) With the approval of the EMS Medical Director, for those paramedics with a minimum of 3 years of field experience in Ventura County, are employed as a field paramedic in another county or work in an acute care setting (RN or LVN) on a full-time basis, complete a minimum of 288 hours of practice, or 30 patient contacts (minimum 15 ALS), in the previous 6 month period in Ventura County.
- 3) A paramedic whose primary duties are administering the ALS Program (90% of the time) for his/her agency and with approval of the EMS Medical Director may maintain his/her level II status by performing a minimum of 5 ALS calls per 6 months (January 1 – June 30 and July 1 – December 31).
- 4) If the paramedic fails to meet this requirement:
 - a) His/her paramedic status reverts to Level I.
 - b) If Level II authorization has lapsed for less than six months, reauthorization will require completion of a minimum of 96 hours of direct field observation by an authorized Ventura County Paramedic FTO, to include a minimum of 10 ALS patient contacts.
 - c) If Level II authorization has lapsed for less than one year and the paramedic has not worked as a paramedic for 6 months or more during the lapse interval OR if Level II authorization has lapsed for greater than one year, reauthorization will require completion of all of the requirements in Section V.B.1. These requirements may be reduced at the discretion of the VCEMS Medical Director.
 - d) If the paramedic has been employed as a paramedic outside of Ventura County or has worked in an acute care setting (RN or LVN) during the period of lapse of authorization, these requirements may be reduced at the discretion of the VCEMS Medical Director.
 - e) Complete VCEMS continuing education requirements, as described in Section V.C.

C. Continuing Education Requirements

Fifty percent (50%) of all CE hours shall be obtained through Ventura County approved courses and 50% of total CE hours must be instructor based.

1. Advanced Cardiac Life Support (ACLS) certification shall be obtained within three months and either Pediatric Advanced Life Support (PALS) certification or Pediatric Education for Prehospital Providers (PEPP) shall be obtained within six months and remain current.
2. Field Care Audits (Field care audit): Twelve (12) hours per two years, at least 6 of which shall be attended in Ventura County. Base Hospitals will offer Field care audit sessions.
3. Periodic training sessions or structured clinical experience (Lecture/ Seminar) as follows:
 - a. Attend one skills refresher session in the first year of the license period, one in the second year, and one every year thereafter.

- b. Education and/or testing on updates to local policies and procedures.
- c. Completion of Ventura County Multi-Casualty Incident training per VCEMS Policy 131.
- d. Successful completion of any additional VCEMS-prescribed training as required.

These may include, but not be limited to:

- 1) Education, and/or testing, in specific clinical conditions identified in the quality improvement program.
- 2) Education and/or testing for Local Optional Scope of Practice Skills.
- 3) The remaining hours may be earned by any combination of field care audit, Clinical hours, Self-Study/Video, Lecture, or Instruction at ALS/BLS level. Clinical hours will receive credit as 1-hour credit for each hour spent in the hospital and must include performance of Paramedic Scope of Practice procedures. The paramedic may be required by his/her employer to obtain Clinical Hours. The input of the Base Hospital Prehospital Care Coordinator and/or Paramedic Liaison Physician shall be considered in determining the need for Clinical Hours.
- 4) One airway lab refresher session per six (6) month period based on license cycle, to be held by a Base Hospital, ALS Provider Medical Director approved by the VCEMS Medical Director, or the VCEMS Medical Director.
- 5) Successfully complete a CPR skills evaluation using a recording/reporting manikin once per six (6) month period based on license cycle.

- 4. Courses shall be listed on the Ventura County Accreditation Continuing Education Log and submitted to VCEMS upon reaccreditation. Continuing education listed on the continuing education log is subject to audit.

- D. The VCEMS Medical Director may temporarily suspend or withdraw Level I or Level II authorization pending clinical remediation.
- E. Failure to comply with the standards of this policy will be considered to be operating outside of medical control.
- F. ALS Service Providers must report any change in Level I/II status to VCEMS within 5 days of taking action.

PARAMEDIC UPGRADE EMPLOYER RECOMMENDATION FORM

Employer: Please instruct the paramedic to complete the requirements in the order listed. Employer shall contact PCC to schedule appointment.

_____, paramedic has been evaluated and has met all criteria for upgrade to Level II status, as defined in Ventura County EMS Policy 318.

Level II Paramedic							
<input type="checkbox"/> All the requirement of level I met. <input type="checkbox"/> Completion of 240 hrs of direct field observation by an authorized Paramedic FTO <input type="checkbox"/> Approval by Paramedic FTO <input type="checkbox"/> Submit all appropriate documentation to VCEMS including							
	Date	Hours	FTO Print legibly		Date	Hours	FTO Print legibly
1				9			
2				10			
3				11			
4				12			
5				13			
6				14			
7				15			
8				16			
Total Hours Completed							

Please sign and date below for approval.

I have reviewed all supporting documentation and it is attached to this recommendation.

Paramedic FTO Signature	Print FTO name legibly	Date:
-------------------------	------------------------	-------

Employer Signature	Print Employer name legibly	Date
--------------------	-----------------------------	------

Per section V.B.1.c.2): PCC signature required if paramedic qualifies for shortened upgrade process.

PCC Signature	Print PCC signature legibly	Date
---------------	-----------------------------	------

Appendix B

Ventura County EMS Upgrade Procedure		240 hours or 10 shifts 30 patient contacts (minimum of 15 ALS)			
Shift	Policy	Procedure/Policy Title to Review	Date	Preceptor Signature	Method of Evaluation (see key)
1	310	Paramedic Scope of Practice			
	704	Base Hospital Contact			
	705	General Patient Guidelines			
		SVT			
		VT			
		Cardiac Arrest – Asystole/PEA			
		Cardiac Arrest – VF/VT			
		Symptomatic Bradycardia			
		Acute Coronary Syndrome			
	726	Transcutaneous Cardiac Pacing			
	727	12 Lead ECG			
	334	Prehospital Personnel Mandatory Training Requirements			
		<i>Notify PCC of Level II upgrade and schedule PCC ride-along.</i>			
2	720	Limited Base Contact			
	705	Trauma Assessment/Treatment Guidelines			
		Altered Neurological Function			
		Overdose			
		Seizures			
		Suspected Stroke			
	614	Spinal Immobilization			
3	705	Behavioral Emergencies			
		Burns			
		Childbirth			
		Crush Injury			
		Heat Emergencies			
		Hypothermia			
		Hypovolemic Shock			
		Bites and Stings			
		Nerve Agent			
		Nausea/Vomiting			
		Pain Control			
		Sepsis Alert			
	451	Stroke System Triage			
4	705	Allergic/Adverse Reaction and Anaphylaxis			
		Neonatal Resuscitation			
		Shortness of Breath – Pulmonary Edema			
	705	Shortness of Breath – Wheezes/other			
	1404	Trauma Assessment/Treatment Guidelines			
		Guidelines for Inter-facility Transfer of Patients to a Trauma Center			
1405	Trauma Triage and Destination Criteria				
1000	Documentation of Prehospital Care				
5	710	Airway Management			
	715	Needle Thoracostomy			
	716	Pre-existing Vascular Access Device			
	717	Intraosseous Infusion			
	729	air-Q			
	722	Transport of Pt. with IV Heparin and NTG			

6	600	Medical Control on Scene			
	601	Medical Control at the Scene – EMS Personnel			
	603	Against Medical Advice			
	606	Determination of Death			
	613	Do Not Resuscitate			
	306	EMT-I: Req. to Staff an ALS Unit			
7	402	Patient Diversion/ED Closure			
	612	Notification of Exposure to a Communicable Disease			
	618	Unaccompanied Minor ECG Review Radio Communication			
8		Mega Codes			
	131	MCI			
	607	Hazardous Material Exposure-Prehospital Protocol			
	1202	Air Unit Dispatch for Emergency Medical Response.			
	1203	Criteria for Patient Emergency Transportation			
9		Multiple System Evaluation			
		Review Head to Toe Assessments			
10		Review Policies and Procedures			
		VCEMS Policy and Arrhythmia Exams			

Paramedic Name: _____ License. # _____ Date _____

FTO Signature _____ Date _____

PCC Signature _____ Date _____

Employer Signature: _____ Date: _____

METHOD OF EVALUATION KEY	
E = EMEDS Review	DO = Direct Observation in the field or clinical setting
S = Simulation/Scenario	V = Verbalizes Understanding to Preceptor
D = Demonstration	NA = Performance Skill not applicable to this employee
T = Test/Self Learning Module	

Appendix C

NAME: _____

EMPLOYER: _____ LICENSE #: P _____

Ventura County Accreditation Requirements Continuing Education Log

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

When you complete the Ventura County continuing education standards per Policy 318 you will automatically meet the State of California requirements for re-licensure.

Remember that the Skills Refresher and intubation requirements are to be completed yearly based on license cycle.

The Skills Refresher, Intubation refresher session and the EMS Update requirements are mandatory and they must be completed in the stated time frames or negative action will be taken against your paramedic training level.

Field Care Audit Hours (12 hours are required, 6 hours must be completed in Ventura County)				
	Date	Location	# Of Hours	Provider Number
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

Lecture Hours

	Required Courses	# of Hours	Date	Location	Provider Number
1.	ACLS (4 hours)				
2.	PALS (4 hours)				

EMS Updates are held in **May** and **November** each year.

EMS Updates are completed as new or changed policies become effective. Enter **ACTUAL** Date of class attendance below:

	EMS Update	Target Dates	Date	Location	Provider Number
3.	EMS UPDATE #1 (1 hour)	Office use only			
	EMS UPDATE #2 (1 hour)	Office use only			
	EMS UPDATE #3 (1 hour)	Office use only			
	EMS UPDATE #4 (1 hour)	Office use only			
4.	Ventura County MCI COURSE (2 hours)	Office use only			

Skill Refreshers are held in **March** and **September** each year. The following requirements must be completed in each year of your license cycle (*for example*: If your re-licensure month is June 2020, you must complete year one requirement between June 2018 and June 2019 and year two requirement between June 2019 and June 2020).

	Paramedic Skills Lab	Target Dates	Enter ACTUAL Date of class attendance below:		
			Date	Location	Provider Number
5.	Skills Refresher year 1 (3 hours)	Office use only			
	Skills Refresher year 2 (3 hours)	Office use only			



6. Airway Lab refresher session (1 session every 6 months based on your license expiration date.)

	Airway Labs	Target Dates	Enter ACTUAL Date of class attendance below:		
			Date	Location	Provider Number
	#1 Airway Lab Session	Office use only			
	#2 Airway Lab Session	Office use only			
	#3 Airway Lab Session	Office use only			
	#4 Airway Lab Session	Office use only			

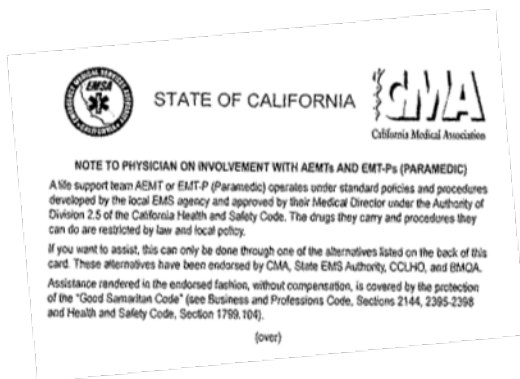
Additional Hours (12 hours)

(These hours can be earned with any combination of additional Field Care Audit, lecture, etc.)

	Date	# of Hours	Location	Provider Number
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Medical Control At Scene, Private Physician/Physician On Scene		Policy Number: 703	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: July 1, 2018	
APPROVED: Medical Director:	 Daniel Shepherd, M.D.	Date: July 1, 2018	
Origination Date:	January, 1985	Effective Date: July 1, 2018	
Revised Date:	June 14, 2108		
Date Last Reviewed:	June 14, 2018		
Review Date:	June 30, 2021		

- I. Purpose: To establish guidelines for medical control of patient care at the scene of a medical emergency. To assist the paramedic who, arrives on the scene of a patient who is being attended by a California licensed physician.
- II. Authority: Health and Safety Code, Division 2.5, Sections 1798 & 1798.6. California Code of Regulations, Title 22, Division 9, Section 100175.
- III. Policy: paramedics shall use the following procedure to determine on-scene authority for patient care.
- IV. Procedure:
 - A. When a bystander at the scene of a medical emergency identifies himself/herself as a physician, the paramedic shall:
 1. Obtain proper identification from the individual (preferably California licensure as M.D., or D.O.) and document name on the PCR.
 2. Present the CMA card "Note to Physician on Involvement with Advanced EMT and Paramedic" to him/her to read and choose level of involvement.



ENDORSED ALTERNATIVES FOR PHYSICIAN INVOLVEMENT

After identifying yourself by name as a physician licensed in the state of California, and if requested, showing proof of identity, you may choose to do one of the following:

1. Offer your assistance with another pair of eyes, hands, or suggestions, but let the life support team remain under the base hospital control; or,
2. Request to talk to the base station physician and directly offer your medical advice and assistance; or,
3. Take total responsibility for the care given by the life support team and physically accompany the patient until the patient arrives at a hospital and responsibility is assumed by the receiving physician. In addition, you must sign for all instructions given in accordance with local policy and procedure. (Whenever possible, remain in contact with the base station physician.)

(REV. 1/12) 12 49638 Provided by the Emergency Medical Services Authority
OSP 12 126336

3. Contact the Base Hospital and advise them that there is a physician on scene.
4. Determine the level of involvement the physician wishes to have and inform the Base Hospital.

-
- B. If the physician chooses not to assume patient care, the Base Hospital shall retain medical control and the paramedic's will utilize the physician as an "assistant" in patient care activities.
- C. If the physician chooses to take medical control, the paramedic's will instruct the physician in radio operation procedures and have the physician at the scene communicate with the Base Hospital physician. The Base Hospital physician may do either of the following:
1. Retain medical control, but consider and/or utilize suggestions offered by the physician at the scene.
 2. Request that the physician at the scene function in an observer capacity only.
 3. Delegate medical control to the physician at the scene.
 4. If the physician at the scene has been given medical control by the Base Hospital physician, the paramedic shall:
 - a. Make ALS equipment and supplies available to the physician and offer assistance.
 - b. Ensure that the physician accompany the patient in the ambulance to the hospital, and signs for all instructions and medical care given.
 - c. Keep the Base Hospital advised.
- D. The paramedic, while under the direction of a physician at the scene, shall perform only those procedures and administer only those drugs for which he/she is accredited for in Ventura County. Paramedics shall be held accountable and possibly liable for performing a procedure or treatment outside the paramedic scope of practice. If a physician at the scene wishes such a procedure or treatment performed, he/she may perform that procedure. The paramedic should attempt to have the on-site physician call the Base Hospital physician regarding the treatment.
- E. The Base Hospital shall:
1. Speak to the physician on scene, unless a delay would be detrimental to patient care, or the physician is the patient's personal physician, to determine qualification regarding emergency treatment and level of involvement chosen by the physician.
 2. Document the physician's intent to assume patient care responsibility.
 3. Relinquish patient care to the patient's personal physician, if he/she has arrived after Base Contact has been made and wishes to assume control.

4. In cases where a dispute arises regarding medical care, the ultimate decision as to patient care shall be made by the Base Hospital, except when the personal physician is present.

F. Private Physician On Scene

1. If the private physician is present and assumes responsibility for the patient care, the paramedic shall advise the Base Hospital that the patient is under the care of his/her private medical doctor (PMD) and inform the Base Hospital of the PMD's instructions.
2. The paramedic, while under the direction of a physician at the scene, shall perform only those procedures and administer only those drugs for which he/she is accredited for in Ventura County. Paramedics shall be held accountable and possibly liable for performing a procedure or treatment outside the paramedic scope of practice. If a physician at the scene wishes such a procedure or treatment performed, he/she may perform that procedure. The paramedic should attempt to have the on-site physician call the Base Hospital physician regarding the treatment.

Cardiac Arrest – Asystole/Pulseless Electrical Activity (PEA)	
ADULT	PEDIATRIC
BLS Procedures	
Initiate Cardiac Arrest Management (CAM) Protocol Airway management per VCEMS policy	
ALS Prior to Base Hospital Contact	
<p>Assess/treat causes IV/IO access</p> <ul style="list-style-type: none"> • PRESTO Blood Draw <p>Epinephrine</p> <ul style="list-style-type: none"> • IV/IO – 0.1mg/mL: 1 mg (10 mL) q 3-5 min <p>If suspected hypovolemia:</p> <ul style="list-style-type: none"> • Normal Saline <ul style="list-style-type: none"> ○ IV/IO bolus – 1 Liter <p>ALS Airway Management</p> <ul style="list-style-type: none"> • If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures 	<p>Assess/treat causes IV/IO access</p> <ul style="list-style-type: none"> • PRESTO Blood Draw <p>Epinephrine 0.1mg/mL</p> <ul style="list-style-type: none"> • IV/IO – 0.01mg/kg (0.1 mL/kg) q 3-5 min <p>If suspected hypovolemia:</p> <ul style="list-style-type: none"> • Normal Saline <ul style="list-style-type: none"> ○ IV/IO bolus – 20 mL/kg • Repeat x 2 <p>ALS Airway Management</p> <ul style="list-style-type: none"> • If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures in accordance with policy 710. <p>Make early Base Hospital contact for all pediatric cardiac arrests</p>
Base Hospital Orders only	
<p>Tricyclic Antidepressant Overdose</p> <ul style="list-style-type: none"> • Sodium Bicarbonate <ul style="list-style-type: none"> • IV/IO – 1 mEq/kg • Repeat 0.5 mEq/kg q 5 min <p>Beta Blocker Overdose</p> <ul style="list-style-type: none"> • Glucagon <ul style="list-style-type: none"> ○ IV/IO – 2 mg • May give up to 10mg if available <p>Calcium Channel Blocker Overdose</p> <ul style="list-style-type: none"> • Calcium Chloride <ul style="list-style-type: none"> ○ IV/IO – 1 g • Repeat x 1 in 10 min • Glucagon <ul style="list-style-type: none"> ○ IV/IO – 2 mg • May give up to 10mg if available <p>History of Renal Failure/Dialysis</p> <ul style="list-style-type: none"> • Calcium Chloride <ul style="list-style-type: none"> • IV/IO – 1 g • Repeat x 1 in 10 min • Sodium Bicarbonate <ul style="list-style-type: none"> • IV/IO – 1 mEq/kg • Repeat 0.5 mEq/kg q 5 min x2 	<p>Tricyclic Antidepressant Overdose</p> <ul style="list-style-type: none"> • Sodium Bicarbonate <ul style="list-style-type: none"> • IV/IO – 1 mEq/kg • Repeat 0.5 mEq/kg q 5 min <p>Beta Blocker Overdose</p> <ul style="list-style-type: none"> • Glucagon <ul style="list-style-type: none"> • IV/IO – 0.1 mg/kg • May give up to 10mg if available <p>Calcium Channel Blocker Overdose</p> <ul style="list-style-type: none"> • Calcium Chloride <ul style="list-style-type: none"> • IV/IO – 20 mg/kg • Repeat x 1 in 10 min • Glucagon <ul style="list-style-type: none"> • IV/IO – 0.1 mg/kg • May give up to 10mg if available <p>History of Renal Failure/Dialysis</p> <ul style="list-style-type: none"> • Calcium Chloride <ul style="list-style-type: none"> • IV/IO – 20 mg/kg • Repeat x 1 in 10 min • Sodium Bicarbonate <ul style="list-style-type: none"> • IV/IO – 1 mEq/kg • Repeat 0.5 mEq/kg q 5 min x2
Consult with ED Physician for further treatment measures	
<p>Additional Information:</p> <ul style="list-style-type: none"> • If sustained ROSC (> 30 seconds), perform 12-lead EKG. Transport to SRC. • If suspected hypovolemia, initiate immediate transport • In cases of normothermic cardiac arrest patients 18 years and older with unwitnessed cardiac arrest, adequate ventilations, vascular access, and persistent asystole or PEA despite 20 minutes of standard advanced cardiac life support, the base hospital should consider termination of resuscitation in the field. If transported, the patient may be transported Code 2. If unable to contact the base hospital, resuscitative efforts may be discontinued and patient determined to be dead. • If patient is hypothermic – only ONE round of medication administration prior to Base Hospital contact. Field determination of death is discouraged in these patients and they should be transported to the most accessible receiving facility. 	

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VCEMS Medical Director

Cardiac Arrest – VF/VT	
ADULT	PEDIATRIC
BLS Procedures	
Initiate Cardiac Arrest Management (CAM) Protocol Airway management per VCEMS policy	
ALS Prior to Base Hospital Contact	
<p>Defibrillate</p> <ul style="list-style-type: none"> Use the biphasic energy settings that have been approved by service provider medical director Repeat every 2 minutes as indicated <p>IV or IO access</p> <ul style="list-style-type: none"> PRESTO Blood Draw <p>Epinephrine</p> <ul style="list-style-type: none"> IV/IO – 0.1mg/mL: 1 mg (10 mL) q 3-5 min <p>Amiodarone</p> <ul style="list-style-type: none"> IV/IO – 300 mg – after second defibrillation If VT/VF persists, 150 mg IV/IO in 3-5 minutes <p>ALS Airway Management</p> <ul style="list-style-type: none"> If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures <p>If VF/VT stops, then recurs, perform defibrillation at the last successful biphasic energy setting</p>	<p>Defibrillate – 2 Joules/kg</p> <ul style="list-style-type: none"> If patient still in VF/VT at rhythm check, increase to 4 Joules/kg Repeat every 2 minutes as indicated <p>IV or IO access</p> <ul style="list-style-type: none"> PRESTO Blood Draw <p>Epinephrine 0.1mg/mL</p> <ul style="list-style-type: none"> IV/IO – 0.01mg/kg (0.1 mL/kg) q 3-5 min <p>Amiodarone</p> <ul style="list-style-type: none"> IV/IO – 5 mg/kg – after second defibrillation If VT/VF-persists, 2.5 mg/kg IV/IO in 3-5 minutes <p>ALS Airway Management</p> <ul style="list-style-type: none"> If unable to ventilate by BLS measures, initiate appropriate advanced airway procedures in accordance with policy 710. <p>If VF/VT stops, then recurs, perform defibrillation at the last successful biphasic energy setting</p>
Base Hospital Orders only	
<p>Tricyclic Antidepressants</p> <ul style="list-style-type: none"> Sodium Bicarbonate <ul style="list-style-type: none"> IV/IO – 1 mEq/kg <ul style="list-style-type: none"> Repeat 0.5 mEq/kg q 5 min <p>Torsades de Pointes</p> <ul style="list-style-type: none"> Magnesium Sulfate <ul style="list-style-type: none"> IV/IO – 2 g over 2 min <ul style="list-style-type: none"> May repeat x 1 in 5 min <p>Consult with ED Physician for further treatment measures <u>ED Physician Order Only</u></p> <p>1. History of Renal Failure/Dialysis</p> <ul style="list-style-type: none"> Calcium Chloride <ul style="list-style-type: none"> IV/IO – 1g <ul style="list-style-type: none"> Repeat x 1 in 10 min Sodium Bicarbonate <ul style="list-style-type: none"> IV/IO – 1 mEq/kg <ul style="list-style-type: none"> Repeat 0.5 mEq/kg q 5 min 	<p>Tricyclic Antidepressants</p> <ul style="list-style-type: none"> Sodium Bicarbonate <ul style="list-style-type: none"> IV/IO – 1 mEq/kg <ul style="list-style-type: none"> Repeat 0.5 mEq/kg q 5 min <p>Consult with ED Physician for further treatment measures <u>ED Physician Order Only</u></p> <p>1. History of Renal Failure/Dialysis</p> <ul style="list-style-type: none"> Calcium Chloride <ul style="list-style-type: none"> IV/IO – 20 mg/kg over 1 min <ul style="list-style-type: none"> Repeat x 1 in 10 min Sodium Bicarbonate <ul style="list-style-type: none"> IV/IO – 1 mEq/kg <ul style="list-style-type: none"> Repeat 0.5 mEq/kg q 5 min
<p>Additional Information:</p> <ul style="list-style-type: none"> If sustained ROSC (>30 seconds), perform 12-lead EKG. Transport to SRC After 30 minutes of sustained VF/VT, make base contact for transport decision If patient is <u>hypothermic</u>—only ONE round of medication administration and limit <i>defibrillation to 6 times</i> prior to Base Hospital contact. Field determination of death is discouraged in these patients and they should be transported to the most accessible receiving facility Ventricular tachycardia (VT) is a rate > 150 bpm 	

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VCEMS Medical Director

Crush Injury/Syndrome	
ADULT	PEDIATRIC
BLS Procedures	
Perform spinal precautions as indicated Determine Potential vs. Actual Crush Syndrome Administer oxygen as indicated	
ALS Prior to Base Hospital Contact	
Potential for Crush Syndrome <ul style="list-style-type: none"> • IV/IO access • Maintain body heat • Release compression • Monitor for cardiac dysrhythmias 	
Communication Failure Protocol	
Crush Syndrome <ul style="list-style-type: none"> • Initiate 2nd IV/IO access • Normal Saline <ul style="list-style-type: none"> ○ IV bolus – 1 Liter <ul style="list-style-type: none"> • Caution with cardiac and/or renal history • Sodium Bicarbonate <ul style="list-style-type: none"> ○ IV mix – 1 mEq/kg <ul style="list-style-type: none"> • Added to 1st Liter of Normal Saline • Albuterol <ul style="list-style-type: none"> ○ Nebulizer – 5 mg/6 mL <ul style="list-style-type: none"> • Repeat x 2 • Morphine – Per Policy 705 - Pain Control • Maintain body heat • Release compression • Monitor for cardiac dysrhythmias • For cardiac dysrhythmias: <ul style="list-style-type: none"> ○ Calcium Chloride <ul style="list-style-type: none"> • IV – 1 g over 1 min 	Crush Syndrome <ul style="list-style-type: none"> • Initiate 2nd IV/IO access if possible or establish IO • Normal Saline <ul style="list-style-type: none"> ○ IV/IO bolus – 20 mL/kg <ul style="list-style-type: none"> • Caution with cardiac and/or renal history • Sodium Bicarbonate <ul style="list-style-type: none"> ○ IV mix– 1 mEq/kg <ul style="list-style-type: none"> • Added to 1st Liter of Normal Saline • Albuterol <ul style="list-style-type: none"> ○ Less than 2 years old <ul style="list-style-type: none"> • Nebulizer – 2.5 mg/3 mL <ul style="list-style-type: none"> ○ Repeat x 2 ○ 2 years old and greater <ul style="list-style-type: none"> • Nebulizer – 5 mg/6 mL <ul style="list-style-type: none"> ○ Repeat x 2 • Maintain body heat • Release compression • Monitor for cardiac dysrhythmias • For cardiac dysrhythmias: <ul style="list-style-type: none"> ○ Calcium Chloride <ul style="list-style-type: none"> • IV/IO – 20 mg/kg over 1 min
For continued shock <ul style="list-style-type: none"> • Repeat Normal Saline <ul style="list-style-type: none"> ○ IV bolus – 1 Liter 	For continued shock <ul style="list-style-type: none"> • Repeat Normal Saline <ul style="list-style-type: none"> ○ IV/IO bolus – 20 mL/kg
Base Hospital Orders only	
For persistent hypotension after fluid bolus: <ul style="list-style-type: none"> • Epinephrine 0.1 mg/mL <ul style="list-style-type: none"> ○ Slow IV/IOP – 0.1 mg (1 mL) increments over 1-2 minutes ▪ Repeat every 3-5 min Max 0.3 mg (3 mL) 	For persistent hypotension after fluid bolus: <ul style="list-style-type: none"> ▪ Epinephrine 0.1mg/mL <ul style="list-style-type: none"> ○ Slow IV/IOP – 0.01 mg/kg (0.1 mL/kg) over 1-2 min ▪ Repeat every 3-5 min Max 0.3 mg (3 mL)
Consult with ED Physician for further treatment measures	Consult with ED Physician for further treatment measures
Additional Information: <ul style="list-style-type: none"> • Potential Crush Syndrome – Continuous crush injury to torso or extremity above wrist or ankle for 2 hours or less. • Crush Syndrome – Continuous crush injury to torso or extremity above wrist or ankle for greater than 2 hours. • If elderly or cardiac history is present, use caution with fluid administration. Reassess and treat accordingly. • Dysrhythmias are usually secondary to Hyperkalemia. ECG monitor may show: Peaked T-waves, Absent P-waves, widened QRS complexes, bradycardia • Calcium Chloride and Sodium Bicarbonate precipitate when mixed. Strongly consider starting a second IV (if feasible) for administration of Calcium Chloride 	

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VCEMS Medical Director

Heat Emergencies	
ADULT	PEDIATRIC
BLS Procedures	
Place patient in cool, shaded environment Initiate active cooling measures <ul style="list-style-type: none"> • Remove clothing • Fan the patient, or turn on air conditioner • Apply ice packs to axilla, groin, back of neck • Other active cooling measures as available Administer oxygen as indicated If patient is altered, determine blood glucose level If less than 60 mg/dl refer to Policy 705.03	
ALS Prior to Base Hospital Contact	
If patient is altered, determine blood glucose if not already performed by BLS personnel or post oral glucose administration If less than 60 mg/dl, refer to Policy 705.03 IV/IO access Normal Saline <ul style="list-style-type: none"> • IV/IO bolus – 1 Liter <ul style="list-style-type: none"> ○ Caution with cardiac and/or renal history 	If patient is altered, determine blood glucose if not already performed by BLS personnel or post oral glucose administration If less than 60 mg/dl, refer to Policy 705.03 IV/IO access Normal Saline <ul style="list-style-type: none"> • IV/IO bolus – 20 mL/kg <ul style="list-style-type: none"> ○ Caution with cardiac and/or renal history
Communication Failure Protocol	
If hypotensive after initial IV/IO fluid bolus: <ul style="list-style-type: none"> • <i>Repeat Normal Saline</i> <ul style="list-style-type: none"> ○ IV/IO bolus – 1 Liter 	If hypotensive after initial IV/IO fluid bolus: <ul style="list-style-type: none"> • <i>Repeat Normal Saline</i> <ul style="list-style-type: none"> ○ IV/IO bolus – 20 mL/kg
Base Hospital Orders only	
Consult with ED Physician for further treatment measures	

Cold Emergencies

BLS Procedures

Gently move patient to warm environment and begin passive warming

Increase ambulance cabin heat, if applicable

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

Administer oxygen as indicated

If patient is altered, determine blood glucose level

If less than 60 mg/dl refer to Policy 705.03

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

- Acceptable range for severe hypothermia:
 - Respiratory Rate: at least 4 breaths per minute
 - Heart rate: at least 20 beats per minute
- Expedite transport if no shivering (indicates core temp below 90°)

ALS Prior to Base Hospital Contact

If patient is altered, determine blood glucose if not already performed by BLS personnel or post oral glucose administration

If less than 60 mg/dl, refer to Policy 705.03

IV/IO access (if needed for medication or fluid administration)

- If administering fluid, avoid administering cold fluids.

Base Hospital Orders only

Consult with ED Physician for further treatment measures

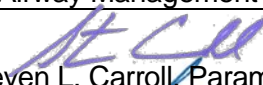

Neonatal Resuscitation	
BLS Procedures	
<p style="text-align: center;">Newly Born Infant</p> <p>Provide warmth, dry briskly and discard wet linen</p> <ul style="list-style-type: none"> Suction ONLY if secretions, including meconium, cause airway obstruction <p>Assess while drying infant</p> <ol style="list-style-type: none"> Full term? Crying or breathing? Good muscle tone? <p>If "YES" to all three</p> <ul style="list-style-type: none"> Place skin-to-skin with mother Cover both with dry linen Observe breathing, activity, color <p>If "NO" to any of three</p> <ul style="list-style-type: none"> Stimulate briefly (<15 seconds) <ul style="list-style-type: none"> Flick soles of infant's feet Briskly rub infant's back Provide warm/dry covering Continue to assess 	<p style="text-align: center;">Infant up to 48 hours old</p> <p>Provide warmth</p> <ul style="list-style-type: none"> Suction ONLY if secretions cause airway obstruction Stimulate briefly (<15 seconds) <ul style="list-style-type: none"> Flick soles of infant's feet Rub infant's back with towel <p>Provide warm/dry covering</p> <p>Continue to assess</p>
<p>Assess Breathing</p> <ul style="list-style-type: none"> If crying or breathing, assess circulation If apneic or gasping <ul style="list-style-type: none"> Positive pressure ventilations (PPV) with BVM and ROOM AIR at 40-60 breaths per minute for 30 seconds <ul style="list-style-type: none"> Continue PPV, reassessing every 30 seconds, until infant is breathing adequately Reassess breathing, assess circulation <p>Assess Circulation</p> <ul style="list-style-type: none"> If HR between 60 and 100 bpm <ul style="list-style-type: none"> PPV with BVM and ROOM AIR at 40-60 breaths per minute for 30 seconds <ul style="list-style-type: none"> Continue PPV, reassessing every 30 seconds, until infant maintains HR >100 bpm If HR < 60 bpm <ul style="list-style-type: none"> CPR at 3:1 ratio for 30 seconds <ul style="list-style-type: none"> 90/min compressions 30/min ventilations Continue CPR, reassessing every 30 seconds, until HR > 60 bpm If no improvement after 90 seconds of ROOM AIR CPR, add supplemental O₂ until HR > 100 	
ALS Prior to Base Hospital Contact	
Establish IO line only in presence of CPR	
<p>Asystole OR Persistent Bradycardia < 60 bpm</p> <ul style="list-style-type: none"> Epinephrine 0.1mg/mL <ul style="list-style-type: none"> IO – 0.01mg/kg (0.1mL/kg) q 3-5 min 	<p style="text-align: center;">PEA</p> <ul style="list-style-type: none"> Epinephrine 0.1mg/mL <ul style="list-style-type: none"> IO – 0.01mg/kg (0.1mL/kg) q 3-5 min Normal Saline <ul style="list-style-type: none"> IO bolus – 10mL/kg
Base Hospital Orders only	
Consult with ED Physician for further treatment measures	
<p>Additional Information:</p> <ul style="list-style-type: none"> Resuscitation efforts may be withheld for extremely preterm infants (< 21 weeks or < 9 inches long). Sensitivity to the desires of the parent(s) may be considered. If uncertain as to gestational age, begin resuscitation. 	

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VCEMS Medical Director

COUNTY OF VENTURA HEALTH CARE AGENCY		EMERGENCY MEDICAL SERVICES POLICIES AND PROCEDURES	
Policy Title: Airway Management		Policy Number 710	
APPROVED: Administration:	 Steven L. Carroll, Paramedic	Date: July 1, 2018	
APPROVED: Medical Director:	 Daniel Shepherd, MD	Date: July 1, 2018	
Origination Date:	June 1986		
Date Revised:	June 14, 2018	Effective Date: July 1, 2018	
Date Last Reviewed:	June 14, 2018		
Review Date:	June 30, 2020		

- I. PURPOSE: To define the indications, procedure and documentation for airway management by Ventura County EMS personnel.
- II. AUTHORITY: California Health and Safety Code, §1798, §1798.2; §1798.160 and §1798.170 and California Code of Regulations, Title 22, §100145 and §100146.
- III. Policy: Airway management shall be performed on all patients that are unable to maintain their own airway. Paramedics may utilize oral endotracheal intubation on adult patients. Paramedics may utilize oral endotracheal intubation on pediatric patients who are longer than the standard pediatric weight and length tape. Pediatric patients who fit on a pediatric length and weight tape will not be intubated by pre-hospital personnel.
- IV. Definitions: Attempt: An interruption of ventilation, with, 1) laryngoscope insertion for the purpose of inserting an endotracheal tube (ETT), or 2) lifting of tongue for the purpose of insertion of the air-Q.
- V. Procedure:
 - A. Bag-Valve-Mask (BVM) ventilations
 1. Indications
 - a. Respiratory arrest or severe respiratory compromise
 - b. Cardiac arrest – according to VCEMS Policy 705
 2. Contraindications
 - a. None
 - B. Endotracheal Intubation (ETI)
 3. Indications
 - a. Cardiac arrest – according to VCEMS Policy 705 – ONLY if unable to adequately ventilate with BVM

- b. Respiratory arrest or severe respiratory compromise **AND** unable to adequately ventilate with BVM
 - c. After Base Hospital (BH) contact has been made, the BH Physician may order endotracheal intubation in other situations.
4. Contraindications
- a. Traumatic brain injury – unless unable to maintain adequate airway (e.g. – persistent vomiting).
 - b. Intact gag reflex.
5. Intubation Attempts
- a. There shall be no more than two (2) attempts to perform ETI, lasting no longer than 40 seconds each, and prior to BH contact. For patients in cardiac arrest, each ETI attempt shall interrupt chest compressions for no longer than 20 seconds.
 - b. The patient shall be ventilated with 100% O₂ by BVM for one minute before each attempt.
 - c. If ETI cannot be accomplished in 2 attempts, the airway shall be managed by BLS techniques.
 - d. If ETI and BLS techniques are unsuccessful, the approved alternate ALS airway device may be inserted.
6. Special considerations
- a. Flexible Stylet. A flexible stylet may be used for any ETI attempt that involves an ETT size of at least 6.0 mm.
 - 1. Two Person Technique (recommended when visualization is less than ideal):
 - a. Visualize as well as possible.
 - b. Place stylet just behind the epiglottis with the bent tip anterior and midline.
 - c. Gently advance the tip through the cords maintaining anterior contact.
 - d. Use stylet to feel for tracheal rings.
 - e. Advance stylet past the black mark. A change in resistance indicates the stylet is at the carina.
 - f. Withdraw the stylet to align the black mark with the teeth.

- g. Have your assistant load and advance the ETT tip to the black mark.
 - h. Have your assistant grasp and hold steady the straight end of the stylet.
 - i. While maintaining laryngoscope blade position, advance the ETT.
 - j. At the glottic opening turn the ETT 90 degrees counter-clockwise to assist passage over the arytenoids.
 - k. Advance the ETT to 22 cm at the teeth.
 - l. While maintaining ETT position, withdraw the stylet.
- 2) One Person Technique (recommended when visualization is good but cords are too anterior to pass ET tube).
- a. Load the stylet into the ETT with the bent end approximately 4 inches (10 cm) past the distal end of the ETT.
 - b. Pinch the ETT against the stylet.
 - c. With the bent tip anterior, while visualizing the cords advance the stylet through the cords.
 - d. Maintain laryngoscope blade position.
 - e. When the black mark is at the teeth ease your grip to allow the tube to slide over the stylet. If available have an assistant stabilize the stylet.
 - f. At the glottic opening turn the ETT 90 degrees counter-clockwise to assist passage over the arytenoids.
 - g. Advance the ETT to 22 cm at the teeth.
 - h. While maintaining ETT position, withdraw the stylet.
- b. Tracheal stoma intubation
- 1. Select the largest endotracheal tube that will fit through the stoma without force (it should not be necessary to use lubricant).
 - 2. Do not use stylet.
 - 3. Pass ETT until the cuff is just past the stoma.

4. Inflate cuff.
 5. Attach the CO₂ measurement device to the ETT and confirm placement (as described below).
 6. Secure tube.
7. Confirmation of Placement – It is the responsibility of the paramedic who has inserted the ETT to personally confirm and document proper placement. Responsibility for the position of the ETT shall remain with the intubating paramedic until a formal transfer of care has been made.
- a. Prior to intubation, prepare the CO₂ measurement device (capnography).
 - b. Insert ETT, advance, and hold at the following depth:
 1. Less than 5 ft. tall: balloon 2 cm past the vocal cords.
 2. 5'-6'6" tall: 22 cm at the teeth.
 3. Over 6'6" tall: 24 cm at the teeth or 2 cm past the vocal cords.
 - c. After inserting the ETT, in the patient requiring CPR, resume chest compressions while confirming ETT placement.
 - d. Inflate the ETT cuff, attach the CO₂ measurement device, and begin ventilations. During the first 5-6 ventilations, auscultate both lung fields (in the axillae) and the epigastrium.
 1. A regular waveform with each ventilation should be seen with tracheal placement. If the patient has been in cardiac arrest for a prolonged time (more than 5-10 minutes) the waveform may be diminished or, very rarely, absent. In the patient with spontaneous circulation, if a regular waveform with a CO₂ of 25 or higher is not seen, that is a strong indicator of esophageal intubation. If the CO₂ measurement device fails, and an alternative is not immediately available, use a colorimetric CO₂ detector.
 2. If a colorimetric CO₂ detector device is used for placement confirmation, observe the color at the end of exhalation after six ventilations. Yellow indicates the presence of >5% exhaled CO₂ and tan 2-5% CO₂. Yellow or tan indicates tube placement in the trachea. Purple indicates

- less than 2% CO₂ and in the patient with spontaneous circulation, is a strong indicator of esophageal intubation.
- d. Using information from auscultation and CO₂ measurement, determine the ETT position.
 1. If breath sounds are equal, there are no sounds at the epigastrium, and the CO₂ measurement device indicates tracheal placement, secure the ETT using an ETT holder.
 2. If auscultation or the CO₂ measurement device indicates that the ETT may be in the esophagus, immediately reevaluate the patient. If you are not CERTAIN that the ETT is in the trachea, the decision to remove the ETT should be based upon the patients overall clinical status (e.g., skin color, respirations, pulse oximetry)
 3. If breath sounds are present but unequal, the ETT position may be adjusted as needed.
 - e. Once ETT position has been confirmed, reassessment using CO₂ measurement, pulse oximetry (if able to obtain), and auscultation of breath sounds should be performed each time patient is moved.
 - f. Continue to monitor the CO₂ measurement device during treatment and transportation. If a change occurs from positive (yellow/tan) to negative (purple), or the waveform diminishes or disappears, reassess the patient for possible accidental extubation or change in circulation status.
 - g. After confirmation of proper ETT placement, and prior to movement, all intubated patients shall have their head and neck maintained in a neutral position with head supports. A cervical collar will only be used if a cervical spine injury is suspected.
 1. Reconfirm ETT placement after any manipulation of the head or neck, including positioning of a head support, and after each change in location of the patient.
 2. Report to nurse and/or physician that the head support is for the purpose of securing the ETT and not for trauma (unless otherwise suspected).

8. Documentation
 - a. All ETI attempts must be documented in the “ALS Airway” section of the Ventura County Electronic Patient Care Report (VCePCR).
 - b. All validated fields related to an advanced airway attempt shall be completed on the VCePCR. Anything related to the advanced airway attempt that does not have an applicable corresponding field in VCePCR, but needs to be documented, shall be entered into the report narrative. All data related to an advanced airway attempt (successful or not) shall be documented on a VCePCR. In addition, an electronic signature shall be captured on the mobile device used to document the care provided. The treating emergency room physician will sign the ‘Advanced Airway Verification’ section of the VCePCR, as well as document the supporting information (placement, findings, method, comments, name, and date). In the event the patient was not transported, another on scene paramedic (if available) will sign and complete the verification section.
 - c. Documentation of the intubation in the approved Ventura County Documentation System must include the following elements. The acronym for the required elements is “SADCASES.”
 1. Size of the ETT
 2. Attempts, number
 3. Depth of the ETT at the patient’s teeth
 4. Confirmation devices used and results. For capnography, recording of waveform at the following points:
 - a. Initial ETT placement confirmation;
 - b. Movement of patient; and
 - c. Transfer of care.
 5. Auscultation results
 6. Secured by what means
 7. ETCO₂, initial value
 8. Support of the head or immobilization of the cervical spine. An electronic upload of Cardiac Monitor data, including ETCO₂ waveform “snapshots” the the VCePCR is

required. In the event an upload cannot occur, a printed code summary, mounted and labeled, displaying capnography waveform at the key points noted above is required. This printed code summary shall be scanned and attached to the VCePCR.

C. air-Q®

1. Indications, contraindications, placement and documentation in accordance with Policy 729.