

**CENTRAL CALIFORNIA
EMERGENCY MEDICAL SERVICES**

A Division of the Fresno County Department of Public Health

Manual	Emergency Medical Services Administrative Policies and Procedures	Policy Number 530.06
Subject	Paramedic Treatment Protocols	Page 1 of 3
VENTRICULAR FIBRILLATION – PULSELESS VENTRICULAR TACHYCARDIA		
References	Title 22, Division 9, Chapter 4 of the California Code of Regulations	Effective Fresno County: 01/15/82 Kings County: 04/10/89 Madera County: 06/15/85 Tulare County: 04/19/05

STANDING ORDERS

1. Assessment	ABCs, CPR if appropriate. Refer to EMS Policy #549 – Initiation/Termination of CPR in the Medical Patient.						
	<ul style="list-style-type: none"> • If EMS providers <u>witness</u> the cardiac arrest, immediately place the cardiac monitor on the patient, analyze and defibrillate if indicated. • If the EMS providers arrive on scene and the patient has an <u>unwitnessed</u> arrest by the EMS providers, perform two (2) minutes of CPR before analyzing the cardiac monitor. 						
2. BLS Airway/ Intubate	Establish IV over ET tube if airway is secure with BLS airway. Accomplish simultaneously with other therapy if possible.						
3. Defibrillate	360 J <u>or</u> biphasic equivalent. Begin or continue CPR for 2 minutes. Reassess. If conversion – IV LR TKO – standard tubing, Amiodarone 150 mg IV/IO push over 10 minutes. Repeat Amiodarone in 30 minutes if prolonged transport time, 150 mg IV/IO push over 10 minutes. Transport and contact Base.						
4. IV/IO Access	IV LR TKO – Standard Tubing.						
5. Epinephrine	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>IV/IO</u></td> <td style="text-align: center;"><u>ET</u></td> </tr> <tr> <td style="text-align: center;">1 mg of 1:10,000</td> <td style="text-align: center;">2 mg of 1:1000</td> </tr> <tr> <td style="text-align: center;">Repeat every 3-5 min.</td> <td style="text-align: center;">Repeat every 3-5 min.</td> </tr> </table>	<u>IV/IO</u>	<u>ET</u>	1 mg of 1:10,000	2 mg of 1:1000	Repeat every 3-5 min.	Repeat every 3-5 min.
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Repeat every 3-5 min.	Repeat every 3-5 min.						
6. Defibrillate	1 time @ 360 J <u>or</u> biphasic equivalent. Continue CPR for 2 minutes. Reassess. If conversion – Amiodarone 150 mg IV/IO push over 10 minutes. Repeat Amiodarone in 30 minutes if prolonged transport time, 150 mg IV/IO push over 10 minutes. Transport and contact Base.						

STANDING ORDERS - CONTINUED ON NEXT PAGE

Approved By	Signatures on File at EMS Agency	Revision
EMS Division Manager		05/01/2014
EMS Medical Director	Signatures on File at EMS Agency	

Subject Paramedic Treatment Protocols - Ventricular Fibrillation – Pulseless Ventricular Tachycardia	Policy Number 530.06
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STANDING ORDERS (CONTINUED)

7. Amiodarone	300 mg IV/IO push.						
8. Defibrillate	1 time @ 360 J <u>or</u> biphasic equivalent. Continue CPR for 2 minutes. Reassess.						
9. Epinephrine	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>IV/IO</u></td> <td style="text-align: center;"><u>ET</u></td> </tr> <tr> <td style="text-align: center;">1 mg of 1:10,000</td> <td style="text-align: center;">2 mg of 1:1000</td> </tr> <tr> <td style="text-align: center;">Repeat every 3-5 min.</td> <td style="text-align: center;">Repeat every 3-5 min.</td> </tr> </table>	<u>IV/IO</u>	<u>ET</u>	1 mg of 1:10,000	2 mg of 1:1000	Repeat every 3-5 min.	Repeat every 3-5 min.
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1 mg of 1:10,000	2 mg of 1:1000						
Repeat every 3-5 min.	Repeat every 3-5 min.						
10. Transport/Base Hospital Contact	If considering termination of CPR, contact Base Hospital.						
11. Defibrillate	1 time @ 360 J <u>or</u> biphasic equivalent. Continue CPR for 2 minutes. Reassess. If conversion – Contact Base.						
12. Epinephrine	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>IV/IO</u></td> <td style="text-align: center;"><u>ET</u></td> </tr> <tr> <td style="text-align: center;">1 mg of 1:10,000</td> <td style="text-align: center;">2 mg of 1:1000</td> </tr> <tr> <td style="text-align: center;">Repeat every 3-5 min.</td> <td style="text-align: center;">Repeat every 3-5 min.</td> </tr> </table>	<u>IV/IO</u>	<u>ET</u>	1 mg of 1:10,000	2 mg of 1:1000	Repeat every 3-5 min.	Repeat every 3-5 min.
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13. Defibrillate	1 time @ 360 J <u>or</u> biphasic equivalent. Continue CPR for 2 minutes. Reassess. If conversion – Contact Base.						
14. Repeat Epinephrine Defibrillation	Every 3-5 minutes.						
15. Contact Hospital	Per Policy #530.02.						

BASE HOSPITAL ORDERS

*1. DETERMINATION OF DEATH	CONSIDER TERMINATION OF EFFORTS IF PATIENT REMAINS IN V-FIB DESPITE ADEQUATE RESUSCITATION EFFORTS.
2. Consider Magnesium Sulfate	2 gm IV push for Torsade de Pointes.
*3. Consider Sodium Bicarbonate in Tricyclic OD or Hyperkalemia	1 mEq/kg IV push.
*4. Calcium Chloride in Suspected Hyperkalemia or Calcium Channel Blocker Toxicity	1000 mg (10 ml) of 10% IV push.

SPECIAL CONSIDERATIONS AND PRIORITIES

1. Maximum dose of Amiodarone **never to exceed 300 mg**.
2. Paramedic must contact the Base Hospital if there is uncertainty as to rhythm interpretation.
3. Allow 60 seconds of adequate CPR after medication administration before defibrillation.

Subject Paramedic Treatment Protocols - Ventricular Fibrillation – Pulseless Ventricular Tachycardia	Policy Number 530.06
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4. In the setting of hypothermia, contact Base Hospital for orders and ETA notification.

NOTE: In the presence of an organized rhythm (such as V-Tach), CPR is generally not indicated.

5. With a suspected or known special circumstance, contact the Base Hospital earlier in the treatment sequence (i.e., tricyclic ingestion, hyperkalemia, Torsade de Pointes).
6. Consider the administration of Dextrose when EMS Personnel, family, or bystanders have performed an accucheck, with a reading below 80, prior to the patient becoming pulseless and non-breathing. Do not delay the administration of cardiac drugs or other ALS procedures for the administration of Dextrose.
7. Whenever return of spontaneous circulation occurs in the cardiac arrest patient, application of 12-lead ECG should be considered.