CENTRAL CALIFORNIA
EMERGENCY MEDICAL SERVICES
A Division of the Fresno County Department of Public Health

Manual	Policy
Emergency Medical Services Administrative Policies and Procedures	Number 530.11
Subject Paramedic Treatment Protocols **PAROXYSMAL SUPRAVENTRICULAR TACHYCARDIA (PSVT)**	Page 1 of 2
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 Assessment	ABCs
2. Secure Airway	Protect with position, basic airway maneuvers, pharyngeal airway, advanced airway if indicated, assist respirations as needed, suction as needed.
3. Oxygen	Low flow. High flow if unstable. Refer to EMS Policy #530.02.
4. IV Access	LR TKO – standard tubing. If patient is critical and unstable, do not delay cardioversion to start an IV.
5. Assess	For serious signs and symptoms - patient must demonstrate one or more of the following: severe chest pain, severe SOB, acutely altered mental status, systolic BP less than 80, shock, pulmonary edema.

A. Unstable, heart rate **greater than 150 beats/minute** with serious signs or symptoms as stated above related to tachycardia.

1. Midazolam	If time allows for the conscious patient, 4 mg slow IV push/IM. May be repeated once if needed. Consider Midazolam 6 mg slow IV push/IM for the large patient for sedation (i.e., over 200 pounds).
3. Cardiovert	Synchronized at 100 J., 200 J., 360 J. **or** biphasic equivalent. If no response to initial attempt at cardioversion, escalate in a stepwise fashion to a maximum of 4 attempts. Contact base for further guidance if arrhythmia persists.
4. Reassess	Treat as appropriate for rhythm.
5. STAT Transport	
6. Contact Hospital	Per EMS Policy #530.02.

B. Stable and symptomatic

1. Valsalva	Monitor EKG and run rhythm strip during Valsalva maneuver.

STANDING ORDERS – CONTINUED ON NEXT PAGE

Approved By	Revision
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Subject	Policy
Paramedic Treatment Protocols - Paroxysmal Supraventricular Tachycardia (PSVT)	Number 530.11

STANDING ORDERS (CONTINUED)

2.	Adenosine	6 mg rapid IV push over 1 second followed by a 20 cc NS flush. If patient does not convert in 2 minutes, repeat adenosine with 12 mg rapid IV push over 1 second. If the patient does not convert, a third administration of 12 mg may be administered.
3.	Transport	
4.	Contact Hospital	Per EMS Policy #530.02.

PAROXYSMAL SUPRAVENTRICULAR TACHYCARDIA (PSVT)
SPECIAL CONSIDERATION AND PRIORITIES

1. If monitor is unable to synchronize despite trouble shooting and clinical conditions are critical, go to immediate unsynchronized shocks.

2. If unconscious, hypotensive, in pulmonary edema, or severe chest pain, consider early transport with therapy enroute.

3. Transport lights/siren if decreased mental status, hypotension, severe respiratory distress or severe chest pain.

4. Almost all patients with a very rapid heart rate will note some chest discomfort. This symptom alone should not classify the patient as unstable. Severe chest pain, particularly if accompanied by cold sweats, nausea, and shortness of breath indicates myocardial ischemia and requires immediate treatment.

5. Supraventricular tachycardia rate is usually 160-210, narrow complex, rate does not vary. In contrast to sinus tachycardia, typical upright P waves will be absent or P waves will be abnormal in supraventricular tachycardia. Suspect sinus tachycardia in patients with sepsis/fever or environmental heat exposure. When in doubt contact the base hospital for guidance.

6. When administering adenosine, after each dose of rapid IV push adenosine, a rapid flush of 20 cc NS must be administered.

7. Adenosine contraindications:
   - Known history of Wolff Parkinson White Syndrome
   - Patients concurrently taking dipyridamole, verapamil, or digoxin
   - 2nd or 3rd degree AV block or known sick sinus syndrome
   - Active bronchospasm

8. In geriatric patients ≥ 70 years of age, midazolam dose should be decreased by 50% if sedation is indicated.

ATRIAL FLUTTER
SPECIAL CONSIDERATIONS AND PRIORITIES

1. Identification: Atrial rate 220-350, with a "sawtooth" pattern, most frequently with a 2:1 conduction.

2. Patient should be transported with low flow oxygen, IV LR TKO – Standard Tubing.

3. If patient's ventricular rate is greater than 150, and the patient has severe respiratory distress, decreased mental status, severe chest pain, or BP less than 80 with signs and symptoms of shock, contact the Base Hospital to consider synchronized cardioversion at 100 J **or** biphasic equivalent.