Section: Adult Medical
Subject: CARDIAC DYSRHYTHMIAS – SUPRAVENTRICULAR TACHYCARDIA (SVT)
Section #: 340.12
Issue Date: March 21, 2011
Revision Date: December 1, 2017
Approved By:  Michael Lozano, Jr., M.D., HCFR Medical Director

1. Basic ALS Treatment.

2. Stable patient:
    a. Vagal maneuvers. DO NOT USE CAROTID MASSAGE
    b. Adenosine:
        i. 6 mg IV over 1-3 seconds; followed by normal saline 20 mL bolus,
        ii. If no response in 1 to 2 minutes, then give 12 mg IV over 1-3 seconds; followed by normal saline 20 mL bolus,
    c. If the patient remains in SVT or if SVT reoccurs:
        i. Administer diltiazem: 0.25 mg/kg IV over 2 minutes.
            1. Systolic BP must be > 100 mmHg.
            2. May repeat once after 15 minutes at a dose of 0.35 mg/kg IV.

3. Unstable patient:
    a. At the discretion of the paramedic in charge you may elect to try one round of adenosine 12 mg IV (as above) before cardioversion.
    b. Synchronized Cardioversion:
        i. Energy levels: 50 j, 100 j, 200 j, 300 j, 360 j.
        ii. Adjuncts to cardioversion if the systolic blood pressure is > 100 mmHg:
            1. Sedation: midazolam 1.25 mg IV once.
            2. Analgesia: fentanyl 50 mcg IV once.
4. Obtain a 12-lead EKG as soon as the patient is stabilized.

5. QA Points:
    a. This protocol covers both SVT and pSVT.
    b. Unstable condition must be related to the tachycardia.
        i. Signs and symptoms may include chest pain, shortness of breath, decreased level of consciousness, low blood pressure, shock, pulmonary congestion, CHF, or acute MI.
    c. Immediate cardioversion is seldom needed for heart rates < 150 bpm.
    d. If delays in synchronization occur and clinical conditions are critical, switch to immediate unsynchronized cardioversion.
    e. PSVT often responds to lower energy levels. That is why you start at 50 j.