


Section: Pediatric Medical  
Subject: CARDIAC DYSRHYTHMIAS – WIDE COMPLEX TACHYCARDIA  
Section #: 343.12  
Issue Date: March 21, 2011  
Revision Date: December 1, 2017  
Approved By: 

Page 1 of 1

Michael Lozano, Jr., M.D., HCFR Medical Director

1. Basic ALS Treatments
2. Adequate perfusion and wide QRS ( $> 0.09$  sec):
  - a. Amiodarone: 5 mg/kg IV/IO over 20 minutes
  - b. Obtain 12-lead EKG
3. Poor perfusion and wide QRS ( $> 0.09$  sec):
  - a. Synchronized cardioversion:
    - i. First energy level: 0.5 – 1.0 J/kg.
    - ii. Subsequent energy levels 2.0 J/kg
    - iii. Establish IV/IO once stabilized
    - iv. Analgesia and sedation (for normal to high BP):
      1. Fentanyl 1 mcg/kg (max dose of 50 mcg) slow IV once.
      2. Midazolam 0.05 mg/kg (max dose of 2.5 mg) IV or IN once.
4. Obtain a 12-lead EKG as soon as the patient is stabilized.
5. QA Points:
  - a. EKG findings consistent with sinus tachycardia:
    - i. QRS normal ( $\leq 0.09$  sec)
    - ii. P waves present and normal
    - iii. Variable R-R with constant PR interval
    - iv. Rate in infants usually  $< 220$ /min
    - v. Rate in children usually  $< 180$ /min
  - b. EKG findings consistent with SVT
    - i. QRS normal ( $\leq 0.09$  sec)
    - ii. P waves absent or abnormal
    - iii. Rate is not variable with activity
    - iv. Rate in infants usually  $> 220$ /min
    - v. Rate in children usually  $> 180$ /min
  - c. EKG findings consistent with SVT with QRS aberrancy
    - i. QRS wide ( $> 0.09$  sec)
    - ii. Uniform QRS morphology
  - d. 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.
  - e. Immediate cardioversion is seldom needed for heart rates  $< 150$  bpm.
  - f. If delays in synchronization occur and clinical conditions are critical, switch to immediate unsynchronized cardioversion.