

# ORANGE COUNTY EMERGENCY MEDICAL SERVICES

BASE HOSPITAL TREATMENT GUIDELINES

## NARROW QRS COMPLEX TACHYCARDIA- ADULT/ADOLESCENT

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#### **BASE GUIDELINES**

- 1. Determine ALS Standing Order treatments/procedures rendered prior to base hospital contact. Use ALS standing order as guidelines for treatments/procedures not initiated prior to base hospital contact.
- 2. Supraventricular tachycardia is defined as a regular, narrow QRS complex rhythm with a rate of 160 bpm or above.
- 3. Unstable patients, especially those with altered mental status, may require immediate cardioversion without premedication.
- 4. Unstable patients may require unsynchronized cardioversion (defibrillation) if "synch" does not occur.
- 5. Hold and do not give Adenosine to patients with history of asthma.
- 6. For irregular heart beat tachycardia (usually atrial fibrillation), provide supportive care and ALS escort to nearest appropriate ERC.

### Heart Rate 150 and above:

- 1. If partial or incomplete conversion after an initial 12 mg Adenosine dose, may repeat 12 mg Adenosine IV once.
- 2. If heart rate  $\geq$  150 and regular with cardiac chest pain altered mental status or systolic BP less than 90 systolic, Consider repeated Cardioversion: at full voltage.
- 3. If patient becomes pulseless, treat according to BH-C-10/SO-C-10 Cardiopulmonary Arrest – Adult/Adolescent Non-Traumatic.
- 4. Consider sedation for cardioversion if SBP >90 mmHg.
  - ► Midazolam (Versed<sup>TM</sup>) 5 mg IN/IV Do not delay cardioversion for IV access if patient is unstable. (Assist ventilation and maintain airway if respiratory depression develops).

## ALS STANDING ORDER

#### General:

- 1. Pulse oximetry; if oxygen saturation less than 95%:
  - ► High-flow oxygen by mask as tolerated.
- 2. Monitor and document cardiac rhythm with rhythm strip

## Heart Rate 100 up to 150:

- 1. Assess for signs of hypovolemia; if hypovolemia suspected and lungs clear on auscultation and no signs of CHF:
  - ▶ Normal Saline, infuse 250 mL, repeat up to maximum 1 liter to maintain adequate perfusion.

#### Heart Rate 150 and above:

- 1. Assess for signs of hypovolemia; if hypovolemia suspected and lungs clear on auscultation and no signs of CHF:
  - ▶ Normal Saline, infuse 250 mL, repeat up to maximum 1 liter to maintain adequate perfusion.
- 2. If mild chest discomfort, lightheadedness, or diaphoresis:
  - A. Attempt Valsalva maneuvers.
  - B. If monitor showing regular narrow QRS heart rate > 160 bpm after attempted Valsalva maneuver, give:
    - ▶ Adenosine: 6 mg, rapid IV over 1–3 seconds; If tachycardia persists after 2 minutes, repeat Adenosine 12 mg rapid IV.
    - ▶ If patient reports positive prior response only to Adenosine 12 mg dose, may skip 6 mg dose and administer Adenosine 12 mg once.
  - C. ALS escort to nearest ERC if rhythm converts with adenosine or symptoms are unchanged.
- 3. Heart rate ≥ 150 with cardiac chest pain altered mental status or systolic BP less than 90 systolic:
  - A. Synchronized cardioversion: 100 J initial shock; may repeat once with maximum energy if no conversion on first shock (or use manufacturer's recommended cardioversion energy for each shock).
  - B. ALS escort to nearest ERC or contact Base Hospital as needed for further orders.

Approved:

