**Supraventricular Tachycardia**

**History:**
- Medications (Aminophylline, Diet pills, Thyroid supplements, Decongestants, Digoxin)
- Diet (caffeine, chocolate)
- Drugs (nicotine, cocaine)
- Past medical history
- History of palpitations / heart racing
- Syncope / near syncope

**Signs and Symptoms:**
- HR greater than 150/Min
- QRS less than 0.12 Sec (QRS greater than 0.12 sec go to V-Tach Protocol)
- If history of WPW, go to V-Tach Protocol
- Dizziness, CP, SOB
- Potential presenting rhythm Sinus tachycardia
  - Atrial fibrillation / flutter
  - Multifocal atrial tachycardia

**Differential:**
- Heart disease (WPW, Valvular)
- Sick sinus syndrome
- Myocardial infarction
- Electrolyte imbalance
- Exertion, Pain, Emotional stress
- Fever
- Hypoxia
- Hypovolemia or Anemia
- Drug effect / Overdose (see Hx)
- Hyperthyroidism
- Pulmonary embolus

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**Universal Patient Care Protocol**

**QRS > 0.12 sec or History of WPW**

- **Stable**
  - Valsalva’s maneuver initially and after each drug administration
  - Adenosine 6 mg rapid IVP. May repeat in 10 min. x 1 at 12 mg rapid IVP. (10 mL flush after each dose.)

- **Unstable**
  - (CASH criteria)
  - Consider sedation for Cardioversion
    - Midazolam 1 mg IV over 3 min.prn. (Max. dose 2.5 mg, 1.5 mg in elderly/ill.) or Lorazepam 0.25-1 mg IV
  - Synchronized Cardioversion @100J. Repeat PRN escalating to 200J, 300J, then 360J with successive shocks.

- **Any change in rhythm, go to appropriate Protocol**

**12 Lead ECG**

**Diltiazem** 0.25 mg/kg IV over 2 minutes (Max dose 20 mg) May repeat x1 at 0.35mg/kg IV q 15 min. (Max dose 25mg)

**Contact Destination or Medical Control for assistance**

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**Pearls:**
- If patient has history of or 12 Lead ECG reveals Wolfe Parkinson White (WPW), DO NOT administer Diltiazem, go to VT with Pulse.
- If patient requires multiple conversion attempts without resolution consider alternative cause of dysrhythmia
- Adenosine may not be effective in identifiable atrial flutter/fibrillation, but is not harmful.
- Monitor for respiratory depression and hypotension associated with Midazolam & Lorazepam. **Pulse OX and Capnography Mandatory!** Be prepared to assist ventilations especially if Midazolam is used.
- Document all rhythm changes with monitor strips and obtain monitor strips with each therapeutic intervention.
- Serious S/S are uncommon with HR < 150. Patients with impaired cardiac function may become symptomatic at lower HR.
- Lorazepam and Midazolam Doses are to be titrated to effect, maintaining SBP >100 mmHg and/or peripheral pulses present. Always use smallest dose possible to achieve desired effect.