DYSRHYTHMIAS: NARROW-COMPLEX TACHYCARDIA

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Information Needed:

- See Dysrhythmias: Overview Protocol

Objective Findings:

- Level of consciousness
- Blood pressure
- Evidence of congestive heart failure (CHF)
- Supraventricular tachycardia is defined as a ventricular rate of >150 BPM with no visible P waves

Stable

- Normal mental status and/or hemodynamically stable

Treatment:

- o High flow oxygen
- o Re-assess vital signs and mental status
- o 12 Lead EKG
- o Consider vagal maneuvers (Valsalva, cough, or blowing into a glove or syringe)
- o Adenosine 6 mg rapid IV flushed with 10-20 ml NS rapid IV push
- o If dysrhythmia persists, repeat adenosine 12 mg rapid IV push flushed with 10-20 ml

Unstable

- Signs of poor perfusion
- Decreased level of consciousness (ALOC)
- SBP < 90
- CHF (rales)
- Ischemic chest discomfort

Treatment:

- o High flow oxygen or BVM as needed
- o Shock position
- o Re-assessment of vital signs and mental status
- o 12 lead EKG
- o Synchronized biphasic cardioversion at 50 J - 100 J. If cardioversion unsuccessful, repeat at 100J, 200J, 300J , 360J using escalating doses.

- If conscious midazolam (Versed®) 1-2 mg IV/IO, may repeat every 5 minutes, up to a maximum of 10 mg IV/IO
- o Consider adenosine if cardioversion is unsuccessful (see dosage/route from "Stable")
- o If dysrhythmia persists, repeat adenosine 12 mg rapid IV push flushed with 10-20 ml NS (18 mg total)

Precautions and Comments:

- A narrow QRS complex is defined as less than 0.12 seconds
- If the rate is less than 150 BPM, consider sinus tachycardia. Sinus tachycardia is most likely secondary to some other factor such as hypoxia, hypovolemia, pain, fever, etc.
- Adenosine administration is associated with flushing, dyspnea, and chest pain. While this may resolve within 1-2 minutes in most affected patients, these symptoms may be alarming and patients should be advised accordingly
- Vagal maneuvers may be useful if not already tried by the patient prior to arrival. Such maneuvers may be tried in stable patients while the IV is being placed and the adenosine injection prepared. Acceptable vagal maneuvers would be Valsalva, cough, or blowing into a glove or syringe
- Be prepared to maintain airway, oxygenation, and ventilation
- Adenosine is relatively contraindicated in patients with a history of asthma/bronchospasm. Consider base physician contact
- Use half of the usual dose of adenosine in patients taking dipyridamole (Persantine®) or carbamazepine (Tegretol®)
- Double dose of adenosine in patients taking theophylline
- Other etiologies should be strongly considered in the presence of a possible SVT in elderly patients with no prior similar history