

SECTION: C-6

PROTOCOL TITLE: Adult Narrow Complex Tachycardia

REVISED: September 28, 2010

GENERAL COMMENTS: This protocol includes Supraventricular Tachycardia (SVT), Atrial Tachycardia, Atrial Fibrillation with a rapid ventricular response, and Atrial Flutter with a rapid ventricular response. When possible, a 12 lead may be helpful in determining origin of the rhythm.

BLS SPECIFIC CARE: See Adult General Cardiac Care/ACS Protocol C-3

ILS SPECIFIC CARE: See Adult General Cardiac Care/ACS Protocol C-3

ALS SPECIFIC CARE: See Adult General Cardiac Care/ACS Protocol C-3

Vagal Manuevers

- Valsalva Manuever
- Carotid Sinus Massage (CSM) or Carotid Sinus Pressure (CSP)

Cardioversion for Unstable patients

- Settings for manual synchronized cardioversion by the Medtronic LP12:
 - Start at 50j for SVT and Atrial flutter only; otherwise begin at 100j as noted below.
 - ⇒ 100j ⇒ 200j ⇒ 300j ⇒ 360j
 - Insure “**SYNC**” button is pressed between each desired synchronized shock.
- If synchronization is not obtained, proceed with unsynchronized cardioversion at the same settings
- Sedation/Analgesia prior to cardioversion is highly desirable, but not mandatory. In event IV access cannot be obtained for prompt sedation, then cardioversion may be performed.
 - See the Adult Pain Control and Sedation protocol M-11 for medications and doses.
 - Midazolam (Versed) is to only be used for sedation with cardioversion.

Antiarrhythmics:

- Adenosine (Adenocard) Use Lidocaine or Procainamide instead if KNOWN VT. **DO NOT** administer to irregular tachycardia's.
 - IV: 6 mg RAPID IVP,
 - Repeat at 12 mg in 3-5 minutes two times PRN (total 30 mg)
 - Follow each dose with a flush of at least 20-60 cc.

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- Procainamide (Pronestyl)
 - Initial infusion IV: Mix 1g in 50 cc (20mg/cc) buretrol. Run 20-50 mg/min (60-150 gtts/min) until:
 - Max of 17 mg/kg
 - QRS widens by 50%
 - Rhythm resolves
 - Hypotension develops
 - Maintenance infusion: Mix 1 g /250 cc of NS. Run at 1-4 mg/minute (15-60 gtts/min).
 - Hold Procainamide for:
 - Torsades
 - Uncorrected hypotension
 - Recent (24 hours) administration of IV Amiodarone or chronic oral Amiodarone administration.
 - Tricyclic Antidepressant Overdose
 - Myasthenia gravis (relative)
- Pronestyl (procainamide) infusion:
 - If, following procainamide therapy, dysrhythmia is terminated.
 - 1-4 mg/min.
 - Administer using 60 gtt/mL administration set.
 - To prepare: dilute 1 g procainamide to 250 ml to yield a solution of 4 mg/ml.
 - 1 mg/min = 15 gtts/min
 - 2 mg/min = 30 gtts/min
 - 3 mg/min = 45 gtts/min
 - 4 mg/min = 60 gtts/min
- Cardizem (Diltiazem):
 - IV: 10 mg slow over 2 minutes
 - Repeat every 10-15 minutes PRN rate control.
 - Hold for WPW
 - Max dose 40 mg
 - ACEMSS uses a smaller dose to avoid hypotension and other adverse effects. Higher doses may be used on medical control order.

For hemodynamically **STABLE** patients presenting with symptomatic narrow complex tachycardias, vagal maneuvers and antidysrhythmic therapy are indicated.

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PHYSICIAN PEARLS:

In addition to being therapeutic, vagal maneuvers can also have limited diagnostic value.

Tachycardia	Expected Response to Vagal Maneuvers
Sinus Tachycardia	No response or gradual slowing
Paroxysmal Atrial Tachycardia	No response or conversion to sinus rhythm
Atrial Flutter increasing block	Ventricular slowing revealing flutter waves
Atrial Fibrillation	Variable slowing
Ventricular Tachycardia	No response

- Procainamide is contraindicated if the patient is on Amiodarone or TCA toxicity is suspected. As are other drugs that widen the QRS.

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