Supraventricular Tachycardia

Diagnosis/Definition

* Narrow complex QRS (<120ms) tachycardia, rate >100bpm
* Regular R-R intervals:
  + Atrial flutter, atrial tachycardia (AT), AVNRT, AVRT
* Irregular R-R intervals:
  + Atrial fibrillation, multifocal atrial tachycardia (MAT)

Initial Diagnosis and Management

* Detailed symptom history, focused physical examination and directed risk-factor assessment (congenital heart disease, cardiomyopathy, medications)
* History of event should include: presence of ‘skipped beats’, tachy-palpitations, irregular palpitations, onset and termination, occurrence of syncope or hemodynamic compromise.
* 12 lead ECG
* Initial labs: TSH, electrolyte panel
* Echocardiogram: indicated in patients who are suspected of having structural heart disease
* 24 hr Holter monitor: attempt to attain symptom-rhythm correlation
* Response to adenosine:
  + No change in rate: inadequate dose; VT
  + Gradual slowing then reacceleration: Sinus tachycardia, AT
  + Sudden termination: AVNRT, AVRT, sinus node re-entry
  + Persisting atrial tachycardia with high-grade AV block: Atrial flutter, AT
* Pre-excitation
  + Widened QRS with ‘delta wave’
  + Pre-excitation with symptoms = WPW syndrome
  + Associated with AVRT

Indications for Specialty Care Referral

* ECG demonstrating pre-excitation with or without symptoms
* History consistent with or documented paroxysmal SVT
* Recurrent symptoms on appropriate medical therapy (beta-blocker, calcium channel antagonist or anti-arrhythmic agent) or following electrophysiology study/ablation