Atrial Fibrillation

Classification –
- Paroxysmal – episodes last <7 days
- Persistent – lasts >7 days
- Recurrent - >2 episodes
- Permanent – lasts >1 year with or without cardioversion
- Lone – Afib without structural heart disease, age <60-65

Evaluation –
- H&P – symptoms, pattern, causes?
- EKG – Afib; also look for LVH, prior MI
- Echo – TTE to eval for valves, LVH, LA thrombus (TEE better)
- TSH, T4
- Others
  - GXT – eval for ischemia, exercise induced AF
  - Holter/Event monitor
  - EP?

Treatment
- Cardioversion – DC vs. Chemical
  - IA – quinidine, procainamide, disopyramide
  - IC – flecainide, propafenone
  - III – amiodarone, sotalol, ibutilide, dofetilide
- Sinus Maintenance – only 20-30% maintain NSR without antiarrhythmic therapy!
  - Amiodarone preferred with low LVEF
  - Disopyramide (Norpace) avoided in CHF
  - Surgical (MAZE), RF ablation, Atrial defibrillator
- Rate control
  - Ca channel blocker – verampamil, diltiazem
  - Beta blocker
  - Digoxin (vagotonic, enhances parasympathetic tone)

Rhythm vs. rate control
- AFFIRM and RACE trials (NEJM; 2002; 347:1825 and 1837)
  - Embolism rate is equivalent between rate and rhythm control, occurring most often when coumadin is stopped or INR is subtherapeutic
  - Trend toward lower mortality rate with rate control (not significant)

Anticoagulation
- During Cardioversion
  - Patients in Afib >48 hours, target INR 2.5 for 3-4 weeks before and after cardioversion
    - 85% of LA thrombi resolve in 3-4 weeks with therapy
  - May eliminate coumadin prior to cardioversion by clearing patients with TEE
    - BUT must still anticoagulate for 3-4 weeks after cardioversion
- AF less than 48 hours (Low risk (0.8%) of embolism)
  - Use heparin pre-cardioversion
  - Patients with rheumatic/valvular disease, need to anticoagulate for ≥3-4 weeks afterwards
  - *ASA after spontaneous cardioversion of 1st episode; 4 weeks coumadin for others
- Chronic (for patients with recurrent/permanent AF)
  - 5% risk of CVA/year in afib
  - Coumadin gives 45-82% risk reduction, beneficial in all age groups