**Acute MI Mgmt Teaching Script**

STEMI

* Prompt Recognition
* Diagnosis made on EKG, biomarkers may be normal early
* Early Management Goals
  + Relief of ischemic pain
  + Hemodynamic management
  + PCI reperfusion therapy or fibrinolysis if no access to reperfusion
  + BB Therapy to prevent recurrent ischemia and life threatening arrhythmias
  + ASA and Platelet therapy (typically clopidogrel)
* After stabilization
  + Antiplatelet therapy after PCI
  + ACEI to prevent remodeling of left ventricle
  + Statin
  + Anticoagulation if LV Thrombus or Afib present
* Initial Assessment and Management
  + EKG within 10 minutes of arrival in ED or prehospital
  + Oxygen: only recommended for hypoxic patients no longer recommended for normoxic patients
  + PCI
    - PCI vs Fibrinolysis: if available PCI preferred, less ICH, less frequent recurrent MI
    - Time goal: 90 minutes from medical contact to PCI if sent to PCI capable hospital
    - 120 minutes if initially sent to non PCI capable hospital
    - For patients who present later (12 to 24 hours) PCI if patient in severe HF, hemodynamically unstable, or electrically unstable
  + Fibrinolysis
    - AHA guidelnes state it can be given within 12 hours of symptoms if PCI unavailable
    - Time interval from ED arrival to medication should be 30 minutes
    - Can “pretreat” with clopidogrel
* Other Meds
  + Nitrates
    - IV Nitroglycerin recommended if chest pain not relieved after 3 SL Nitro or patients with hypertension or heart failure (afterload reduction)
    - Caution in hypotension or hemodynamic instability
  + Morphine
    - IV 2-4 mg in 15 minute intervals until relief of chest pain
  + BB
    - All patients with acute MI unless contraindicated
    - Contraindications: “low output state”, HF, cardiogenic shock, bradycardia, heart block
  + Statin
    - As early as possible, Lipitor 80 mg most recommended
  + NSAIDs should be discontinued immediately
  + Potassium of 4.0 mEq recommended, Mg above 2.0 mEq
  + CCB shows no benefit to mortality and can harm certain patients (CHF)
  + ASA recommended indefinitely after MI
  + Additional Platelet Therapy (clopidogrel) recommended for 1 year regardless of PCI/stent
  + Chronic ACEI recommended unless contraindicated (renal disease)
  + Aldosterone Antagonist strongly recommended for chronic use if already on ACEI/BB and EF < 40%

NSTEMI/Unstable Angina

* Definition
  + Angina at rest > 20 minutes
  + New onset angina that limits activity
  + Increasing angina
* Primary goals (initial eval of NSTEMI and UA are same due to it may take hours to get an elevation of biomarkers)
  + Prompt recognition
  + Relief of chest pain
  + Maintain hemodynamic stability
    - Avoid hypertension or tachycardia
  + Choose between early invasive strategy (PCI) vs medical management
  + Initiate Antiplatelet and Anticoagulant therapies
  + BB to prevent recurrent ischemia or life threatening arrhythmias
* Long term goals
  + Long term antiplatelet, statin, ACEI, BB
  + Consider long term anticoagulation if thrombus or afib present
* Management
  + Early management the same as STEMI (including potential PCI) except fibrinolysis not indicated
* Risk Stratification
  + Biomarker elevation or ST depression
  + TIMI Risk Score
    - Value of 1 per risk factor
    - 0 to 2 low risk, 3-4 intermediate, high risk 5-7
    - Age > 65 years
    - Presence of 3 risk factors (CAD, HTN, DM, HLP, Smoking, Positive Family History)
    - Prior CAD > 50% blockage
    - ST segment deviation
    - Two angina episodes in 24 hours
    - Elevated biomarkers
    - Use of ASA in last 7 days
  + Immediate PCI
    - Hemodynamic Instability or cardiogenic shock
    - Severe LV Dysfunction
    - Recurrent or Persistent Rest Angina despite intensive therapy
    - New or worsening MR or new VSD
    - Sustained Ventricular Arrhythmia