**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