

# Chest pain

## I. DDx (Biggest killers)

- MI : Dull pressure pain associated with dyspnea, diaphoresis, radiation to left jaw/arm, N/V, cardiac risk factors present
- Aortic Dissection: Tearing pain that radiates straight to the back, associated with HTN, smoking Hx, unequal pulses
- Pneumothorax: Pleuritic chest pain, COPD, trauma, decreased breath sounds, hyperresonance, deviation of trachea away from affected side, hypoxia
  - Consider in any intubated patient.
- Pulmonary Embolism: Pleuritic chest pain, dyspnea, hypoxia, hemoptysis
- Other: Pericarditis, pneumonia/pleurisy, GERD, PUD, esophageal spasm, costochondritis, anxiety (diagnosis of exclusion), HOCM, myocarditis,
  - If HIV/AIDS = herpes, CMV, candida esophagitis

## Evaluation of Patient

### History:

- Learn about acuity of onset of chest pain
- Associated symptoms? (cough, dyspnea, palpitations, fever)
- Review recent events or meds given at time of symptoms onset
- Review relevant PMHx and admitting diagnosis
- Look at initial EKG (from chart if available)
- Focus on ruling out the major killers rather than definite diagnosis

### Physical exam:

- Start by asking nurse for vital signs (HR, RR, BP, O2 sat). Ask for second set 15-30 minutes later.
- Ask nurses to get immediate EKG as you walk to patient's room.
- Lung/cardiac exam

### Initial Labs/Studies to Order

- Ask nurses to get immediate EKG as you walk to patient's room.
- Crisis panel
- CBC, CMP, troponin x3 q6h, CXR, ABG

- CHF = echo

## Management

### Suspected Angina/MI

- Start O2 by NC and give sublingual NTG 0.4mg q5 min x3; hold for SBP < 100
- Remember, if chest pain responds to NTG it does not automatically rule in angina.
- If ineffective, try other antianginals
- Metoprolol 5mg IV q5 min x 3 (avoid in COPD/asthma)
- Nitropaste
- If not already on aspirin/Plavix and has no contraindications, order ASA 325mg and Plavix 300mg x 1
- Further meds = high-dose statin, consider ACE inhibitors

### Suspected Dissection

- Call and transfer to ICU to reduce BP and inotropy with beta-blocker
- Order CT scan or echo and call surgery
- EKG may show evidence of ischemia in RCA distribution if dissection is proximal

### Suspected Pneumothorax

- Call surgery for chest tube placement
- If tension pneumothorax, immediate needle decompression at 2nd intercostal space at midclavicular line. Don't wait for CXR.

### Suspected PE

- ABG confirms hypoxia
- Consider CTPA or V/Q scan and start anticoagulation

### Suspected Pericarditis

- NSAIDS and colchicine

### Wrap up:

- Obtain post-pain EKG and document event