Chest Pain

ABC

- Ensure that airway is patent and protected
- Administer Oxygen if low O_2 Saturation
- Administer fluids if low Blood Pressure + connect to cardiac monitor

Initial Investigations

- ECG first
- CXR (portable if patient unstable)

Table 1. History elements to differentiate among the deadly diagnoses of chest pain

Diagnosis	**Pain or discomfort***	**Associated Symptoms**	**Risk Factors**
ACS	L: retrosternal, epigastric, left or right side of chest R: shoulder, arm, jaw P/A: Worse with activity, decrease with rest Q: sharp, pressure, crushing, vague	Diaphoresis, SOB, Nausea	DM, HTN, hypercholesterolemia, FHx, smoking
PE	L: one-sided R: no radiation Q: pleuritic	SOB, Syncope	Immobilization, Hx of VTE, OCP/HRT, active malignancy
Aortic dissection	L: mid-scapula between shoulder blades Q: sharp and tearing	Neurological symptoms (e.g. limb weakness)	Connective Tissue Disease, HTN
Pericarditis/ effusion	L: anterior chest (central or left) Q: sharp, pleuritic,	SOB, Syncope	URTI, Malignancy

	positional		
Pneumothorax	L: either side of chest Q: Sharp, pleuritic	SOB	Trauma, previous episode
Esophageal rupture	L: Mid chest	Fever	Repeated forceful vomiting, post endoscopic procedure

*Pain can be described as "discomfort", "pressure", or "ache"

ACS: Acute Coronary Syndrome; L: Location; Q: Quality; R: Radiation; P/A: Precipitating/Alleviating; SOB: Shortness of Breath; DM: Diabetes Mellitus; HTN: Hypertension; FHx: Family History; PE: Pulmonary Embolus; Hx: History; VTE: Venous Thromboembolism; OCP: Oral Contraceptive; HRT: Hormone Replacement Therapy; URTI: Upper Respiratory Tract Infection

Pertinent findings on physical exam:

- Decreased heart sounds in pericardial effusion
- Pericardial rub in pericarditis
- decreased breath sounds in pneumothorax

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