Can't Miss Chest Pain Diagnosis

Diagnosis	Presentation	Risk Factors	Workup	Treatment (Acute)	Disposition
ACS	Retrosternal chest pain, dyspnea, pallor, n/v, diaphoresis	Diabetes, HTN, Smoking, Hx Heart or Vascular Disease	CBC, CMP, BNP, Troponins x2, EKG, CXR, Bedside POCUS	Oxygen, Sublingual Nitroglycerin, Aspirin 325 mg, B-blocker, Statin, ACE inhibitor, ADP receptor inhibitor, Heparin, immediate revascularization	Consult Cardiology, Admission
Aortic Dissection	Chest or back pain, hypertension or hypotension, asymmetrical blood pressure and pulse readings between limbs, syncope, diaphoresis	Hypertension (most common), trauma (deceleration injury), Vasculitis, Amphetamine or cocaine use, pregnancy	EKG, CBC, CMP, BNP, CXR, TTE, Bedside POCUS, gold standard is CTA	Type A dissection is treated surgically, Type B dissections are treated with blood pressure management: Esmolol or Labetalol followed by vasodilators like IV Sodium Nitroprusside, with SBP goal < 90 mmHg. Morphine for pain, reversal of anticoagulation	Admission, Consult Cardiology, Possibly OR
Cardiac Tamponade	Chest Pain, Orthopnea, hoarseness, dysphagia, hiccups, Beck's Triad	Trauma, Aortic Dissection, Recent Cardiac Surgery, Malignancy, Pericarditis	CBC, CMP, BNP, EKG, CXR, Bedside POCUS, TTE is gold standard	Urgent pericardial fluid drainage with pericardiocentesis using echocardiography, or pericardial window. If in a traumatic cardiac arrest, ED thoracotamy with pericadiotomy.	Consult Cardiology, and Surgery Admission,
Pulmonary Embolism	Dyspnea, tachypnea, pleuritic chest pain, hemoptysis, cough, split S2, fever, syncope, JVD, Kussmaul sign, hypotension, obstructive shock	DVT, Fat Embolism, Air Embolism, Amniotic Fluid Embolism, Bacterial Embolism, Pulmonary Tumor Embolism, Pulmonary Cement Embolism	CBC, CMP, Troponin, BNP, ABG, EKG, Bedside POCUS, CXR. If hemodynamically stable with low pre test probability, PERC. If intermediate probability, consider d-dimer. If high proobability, CTPA or V/Q Scan.	Oxygen, Pain management (avoid NSAIDs), start anticoagulation. If non massive PE, consider conservative management or temporary IVC filter. If submassive PE, consider thrombolysis, temporary IVC filter or embolectomy. If massive PE, perform thrombolysis, followed by embolectomy as needed.	Consult Pulmonary Embolism response team, Admission
Tension Pneumothorax	Chest pain, dyspnea, absent or reduced breath sounds, hyperresonant percussion, subcutaneous emphysema, cyanosis, restlessness, diaphoresis, distended neck veins, hemodynamic instability	Blunt trauma, Penetrating injury, iatrogenic, barotrauma, thoracentesis, catheter placement, bronchoscopy	CXR with reduced or absent lung markings or Depp sulcus sign, tracheal deviation away from the affected side, Bedside POCUS, ABG	Chest decompression with needle decompression followed by chest tube placement. Respiratory support.	Admission, consider thoracic surgery or pulmology consult
Esophageal Rupture	Mackler Triad (Vomiting, Retrosternal pain with back radiation, subcutaneous or mediastinal emphysema, also called Hamman sign). Dyspnea, tachypnea, tachycardia, dysphagia, sepsis	Iatrogenic esophageal perforation, ingestion of foreign body or caustic material, trauma, malignancy, infection (candida, HSV, TB, syphilis), spontaneous	CXR, Water based contrast esophagography, CT Scan	Oxygen, NPO, IV PPI like pantoprazole, Broad spectrum antbiotics like piperacillin tazobactam or meropneem and vancoymycin. Consider chest tube placement for PTX or pleurale ffusion.	Consult thoracic surgery and GI, Admission, Surgery consult for closure of rupture if unstable