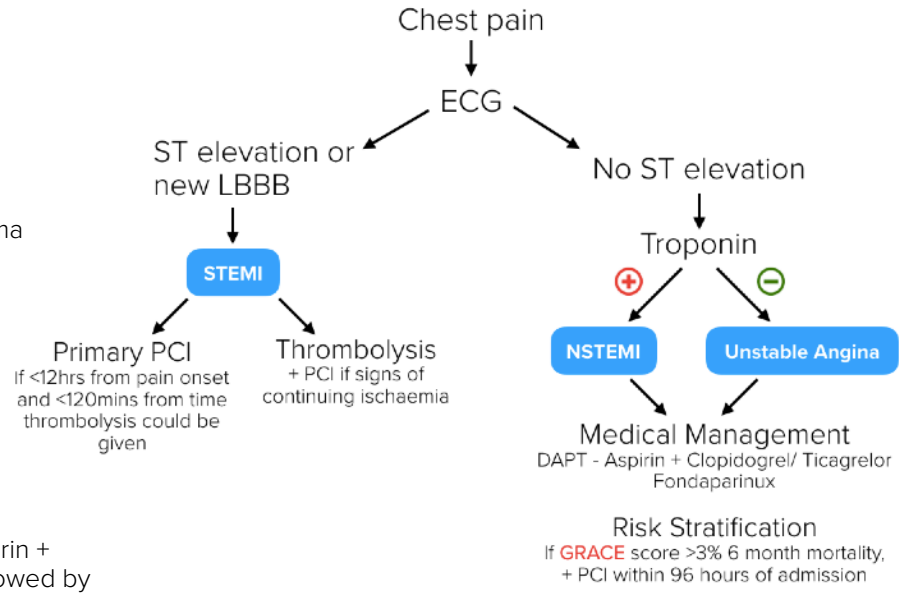
Cardiovascular Q3 Acute Coronary Syndrome

GUIDELINE: NICE CG94/ CG167

Guideline Explained

Initial management of all ACS:

- IV opiate analgesia
- Antiemetics
- Aspirin [300mg]
- O2 only if hypoxic (SaO2 <94%)
- (+) GTN infusion for uncontrolled pain/ severe HTN/ pulmonary oedema



Post ACS management:

- Cardiac rehabilitation
- Lifestyle changes
  - Diet
  - Exercise
  - Smoking cessation
  - Weight management
- Medication
  - Dual antiplatelet therapy (DAPT): Aspirin + Clopidogrel/ Ticagrelor) for 1-12m followed by aspirin lifelong
  - B-blocker
  - ACEi
  - Statin

Type 1 MI = acute plaque rupture

Type 2 MI = Supply over demand mismatch

ST elevation ECG criteria:

- **>1mm** ST ↑ @ J-point in two continuous leads
  Or
- In leads V2-3:
  - **>2mm** ST ↑ in men >40yrs
  - >2.5mm ST ↑ in men <40years
  - >1.5mm ST ↑ in women of any age

Answer Explained

- Why Dressler's syndrome? Autoimmune pericarditis, weeks to months after acute MI. Pleuritic chest pain and fever.
  - ECG: global ST elevation and PR depression
- Why not LV aneurysm? Presents with heart failure or arrhythmia after acute MI.
  - ECG: persisting ST elevation
- Why not Brugada syndrome? Sodium channelopathy —> arrhythmias and sudden cardiac death.
  - ECG: ST elevation + TWI in V1-3
- Why not stent thrombosis? Presents like acute MI: chest pain +/- ECG changes and troponin rise.

Complications post acute MI:

Death	**V**SD
Arrythmia/ heart block	**A**nother MI
Ruptured aneurysm	**D**resslers syndrome
Thrombus	**E**mbolus
Heart failure	**R**egurgitant valve

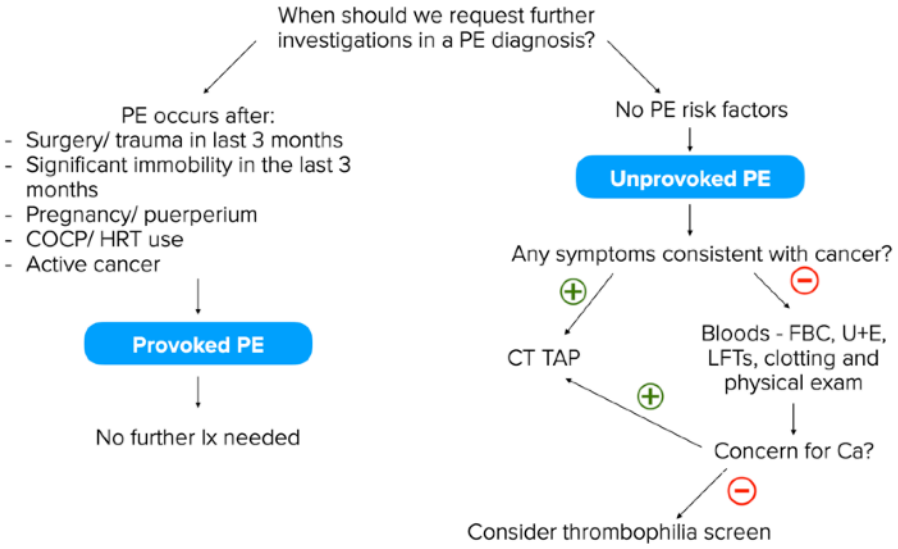
SBA Exam Tips	Cold peripheries and poor urine output	→	Cardiogenic shock
	PCI with stents	→	Dual anti platelet therapy (DAPT) for at least 12 months
	Bradycardia & AV nodal block	→	Inferior MI
1st line Ix	ECG + Troponin		
Key Message	Initial treatment ACS = Aspirin, Analgesia and Antiemetics		
	Risk stratification (GRACE score) is essential to guide treatment for non-ST elevation ACS		
	Consider all STEMI patients who present <12 hours from pain onset for immediate reperfusion unless CI		

Respiratory Q8 Pulmonary Embolism

GUIDELINE: NICE NG158: VTE Diagnosis, Treatment and Thrombophilia testing

Guideline Explained

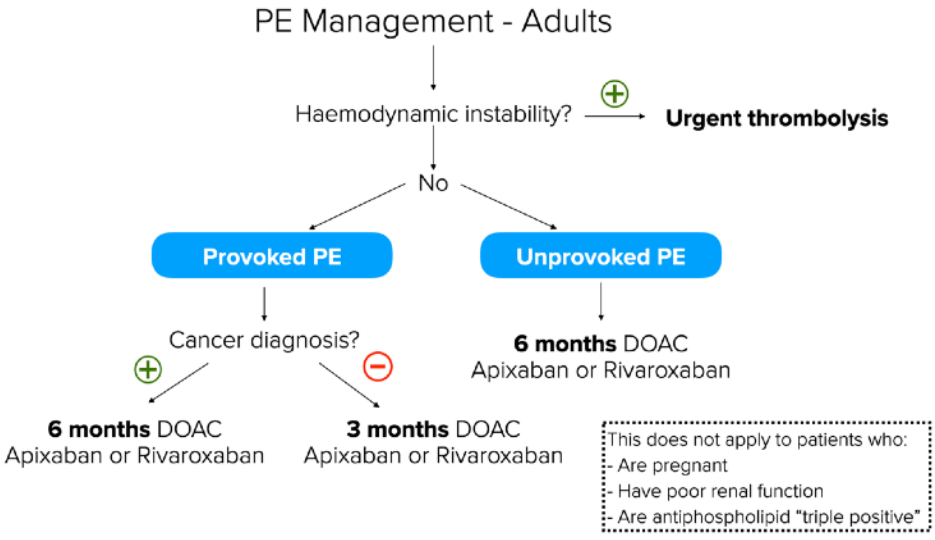
- Pulmonary embolism can be defined as **provoked** or **unprovoked.**
- In some circumstances, unprovoked PE should be further investigated.
- If there are no symptoms of cancer, then can consider thrombophilia screening if anticoagulation is to be stopped.
  - Screen for anti-phospholipid syndrome
  - Screen for hereditary thrombophilia in those with unprovoked DVT with FH of 1st degree relative with unprovoked DVT.



ECG changes in PE

- Most common - **sinus tachycardia**
- Signs of poor prognosis on ECG include -
  - New complete or incomplete RBBB
  - S1Q3T3 pattern
  - Right ventricular strain pattern
  - Atrial arrhythmias

Management of Pulmonary Embolism



Answer Explained

- Why B, CT TAP? CTPA shows a PE and history consistent with unprovoked PE.
  - 30 pack-year-history with prolonged cough is suggestive of underlying malignancy. CT TAP to investigate for cause.
- Why not A, bloods?
  - The patient already has symptoms of cancer.
- Why not C and D, genetic testing and thrombophilia screen?
  - Unprovoked DVT but no personal or family history of DVT. Should consider underlying Ca first before hereditary thrombophilia.
- Why not E, Doppler? PE already diagnosed.

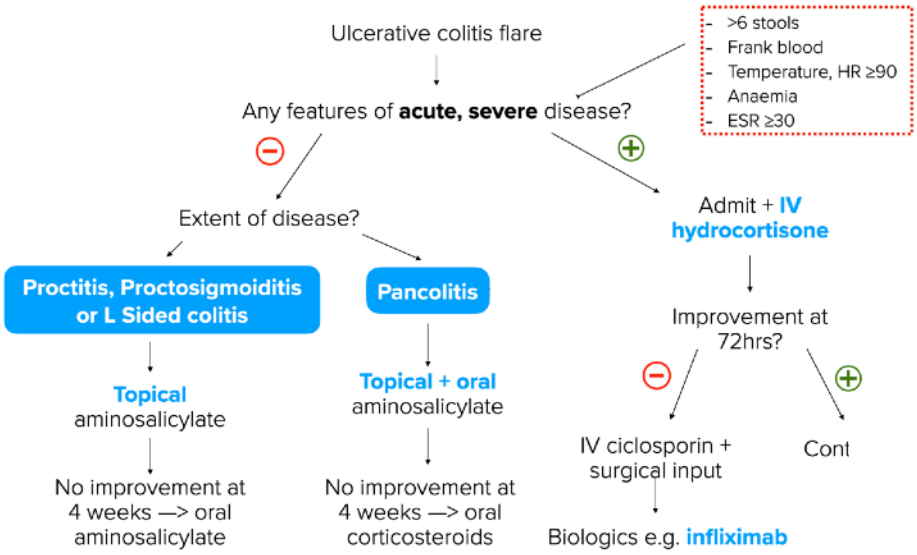
SBA Exam Tips	Recurrent miscarriages, prolonged APTT and thrombocytopenia	→	Antiphospholipid syndrome
	ECG - ST depression/ T wave inversion V1-4 and II, III, AvF	→	R ventricular strain pattern
	Skin necrosis after warfarin	→	Protein C deficiency
1st line Ix	Chest x-ray: to rule out other causes		
Key Message	Unprovoked PE's in patient with symptoms of a possible underlying malignancy should have a CT-TAP		
	Patients with a diagnosis of cancer should have 6 months treatment, despite being a provoked PE.		
	Sinus tachycardia is the most common ECG finding in PE		

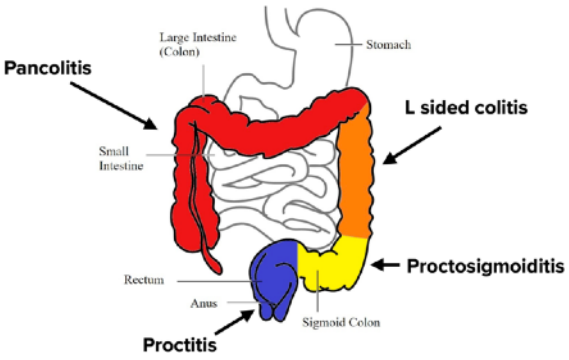
Gastroenterology Q10 Inflammatory Bowel Disease

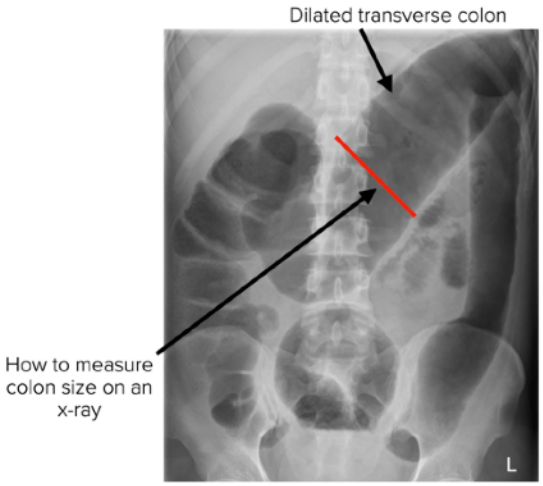
GUIDELINE: **NICE NG130: Ulcerative Colitis - Management; UpToDate: Ulcerative Colitis**

Guideline Explained

- Ulcerative colitis is a form of inflammatory bowel disease associated with continuous inflammation of the large bowel only.
- Management of acute flares is as follows:







Answer Explained

- Why E, discharge and commence oral aminosalicylates?
  - Known history of ulcerative colitis with no features of severe disease —> can be discharged from hospital.
  - This patient's disease is proctitis only. They've failed 4 weeks of topical therapy, add in oral aminosalicylates.
- Why not A, admit and commence IV hydrocortisone?
  - As no acute, severe features so doesn't need IV hydrocortisone.
- Why not B, admit and commence oral aminosalicylates?
  - As does not need admission.
- Why not C, admit and commence oral prednisolone?
  - As per NICE guidelines, oral prednisolone can be trialled after 4 weeks of oral aminosalicylates.

Toxic Megacolon

- Complication of ulcerative colitis or infectious colitis (C difficile).
- Colonic dilatation + systemic toxicity with risk of bowel perforation.
- "3-6-9" rule: 3cm small bowel; 6cm large bowel; 9cm caecum.
- Mx: IV hydrocortisone, infliximab or surgery

SBA Exam Tips	Ulcerating lesion on lower limb, PMH of IBD	→	Pyoderma gangrenosum
	Acute red eye, hypopyon, intense photophobia	→	Acute uveitis
	IBD history, asymmetrical joint swelling and HLA-B27	→	Enteropathic arthritis
1st line Ix	Suspected IBD: faecal calprotectin. If bloody diarrhoea —> colonoscopy.		
Key Message	Acute, severe flares of UC should be managed in hospital with IV hydrocortisone		
	Those with mild-moderate disease should be managed with topical agents first, and oral agents if no response in 4 weeks		
	Preparation for use of infliximab includes interferon gamma test and CXR		