

Approach to Chest Pain

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Epidemiology

- 20 – 40% of the general population will experience chest pain in their lifetime
- Accounts for 1% of GP visits
- 700,000 (5%) visits to A+E for chest pain in England and Wales in 2010
- 25% hospital admissions

DDx of Chest Pain – Cardiac causes

- Acute MI
- Stable / Unstable angina
- Dissecting thoracic aneurysm
- Pericarditis
- Aortic stenosis
- Valvular disease

DDx of Chest Pain – Non-cardiac

- Respiratory
 - Pneumonia, lung cancer, pneumothorax, pleuritis, PE
- GI
 - GORD, Peptic ulcer, Oesophageal spasm/rupture, cholecystitis, pancreatitis, gastritis
- Musculoskeletal
 - Rib fracture, costochondritis, bone metastasis, Tietze syndrome
- Skin
 - Herpes zoster
- Psychological
 - Anxiety attack, panic attack
- Other
 - Sickle cell crisis, Breast pain

Life threatening causes of chest pain

- Acute coronary syndrome
 - (MI, unstable angina)
- Thoracic Aortic dissection
- Pulmonary embolus
- Tension pneumothorax
- Oesophageal rupture

Initial approach

- ABC's!
- If there is respiratory distress / haemodynamic instability – focus on stabilising first before investigations!

History

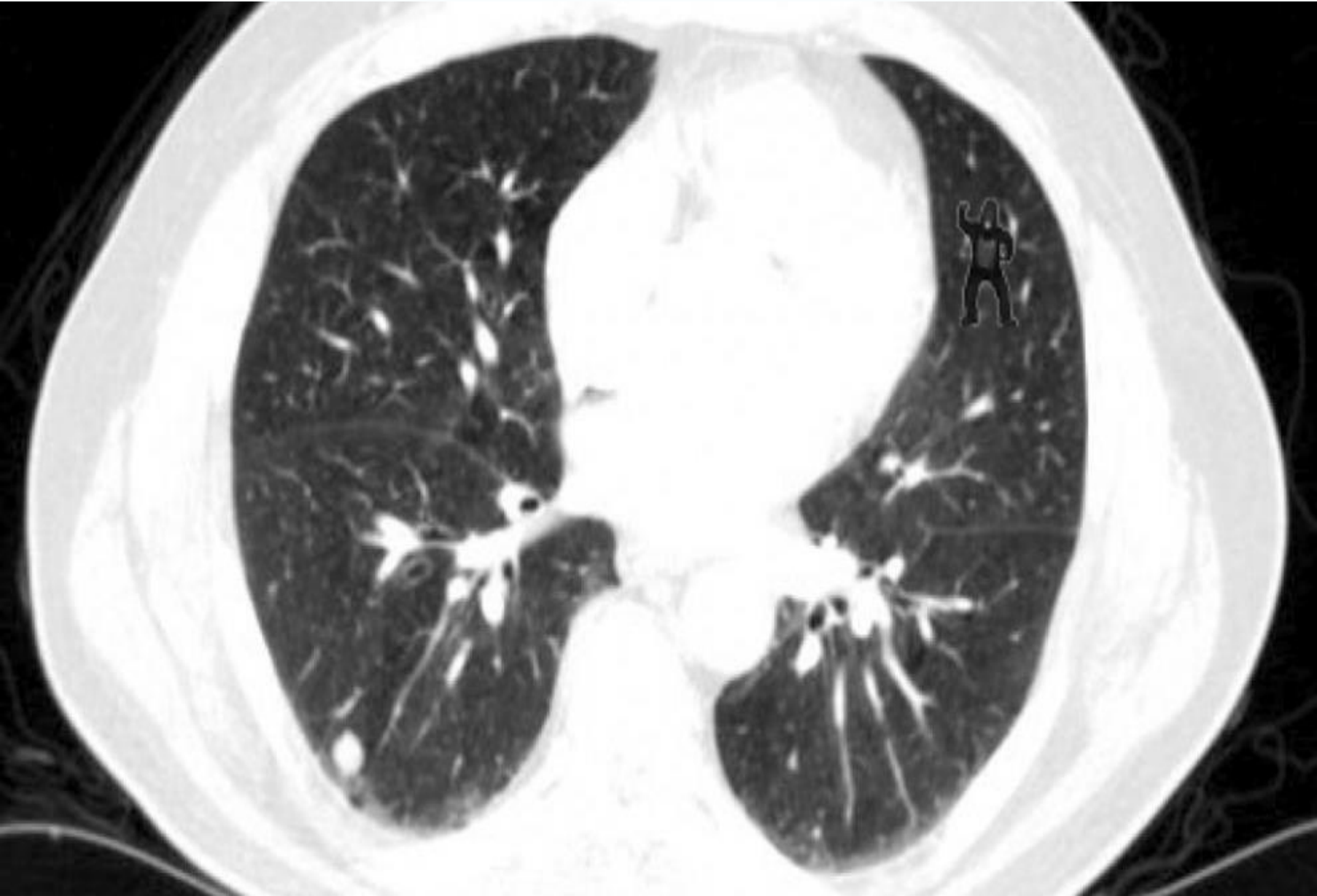
- One of the most important factors in the approach to chest pain!!
- SOCRATES
- Risk factors
- Medications
- Exclude contraindications to thrombolysis if ACS is suspected

Examination

- Vital signs
 - BP, HR, RR, O₂ Sats, Temp
- General appearance
- Cardiovascular examination
- Respiratory examination
- Abdominal Examination
- Extremities
- Skin
- Neurological (Mood)

Investigations to consider

- FBC
- U+E
- LFT's
- Amylase
- Coagulation screen
- Cardiac enzymes (CK-MB, Troponin I + T)
- ECG (Normal initial ECG does not rule out MI)
- CXR
- Spiral CT
- V/Q perfusion scan
- MRI





A: Tension pneumothorax

B: Pneumonia

C: Normal CXR

D: Collapsed lung

E: Pericarditis



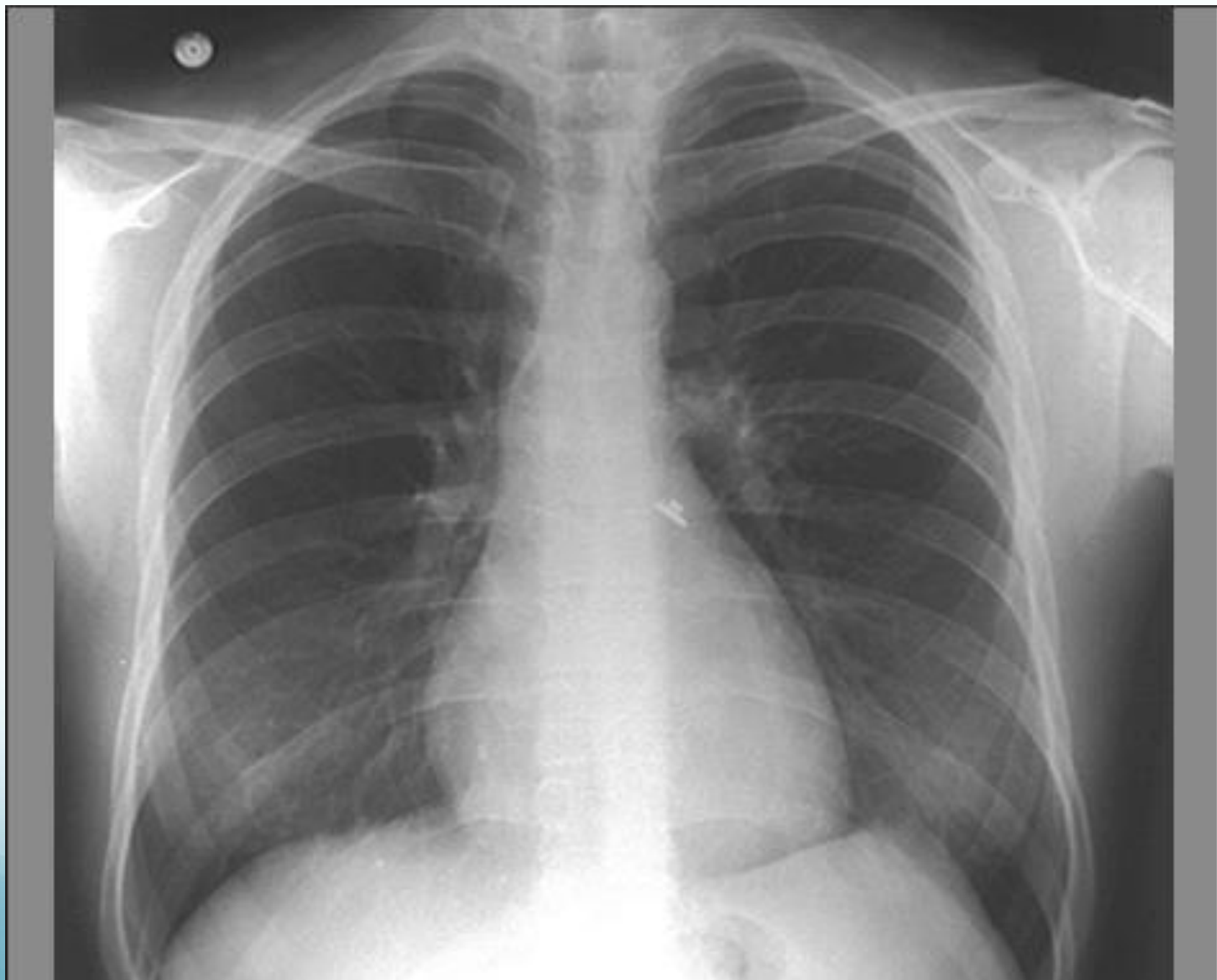
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Thank You