Chest pain has multiple possible causes, ranging from trivial to life-threatening. GP registrars are likely to have seen many patients presenting with chest pain in the ED setting, but the epidemiology and approach to chest pain in general practice is significantly different. As a high risk presentation, supervisors must ensure that registrars have a safe approach to the assessment and management of chest pain.

### Teaching and Learning Areas
- Common and serious causes of chest pain in general practice
- Key diagnostic features on history and examination
- Judicious and appropriate use of investigations, including the use of troponin testing in general practice
- ECG interpretation (a common question in the Fellowship exams!)
- Emergency management of acute coronary syndrome, including review of the emergency trolley and defibrillator, and protocol for calling for help
- Management of non-ischaemic causes of chest pain
- Indications and pathways for referral

### Pre-Session Activities
- Ask the registrar to complete the clinical reasoning challenge and bring along to discuss

### Teaching Tips and Traps
- Chest pain is due to ischaemia until proven otherwise
- Musculoskeletal and psychogenic causes of chest pain are common in general practice
- Don’t forget pulmonary embolism and aortic dissection as important differential diagnoses
- A good history is the best investigation!
- Don’t be reassured by a normal ECG

### Resources
#### Read
- MJA article (2013) - [The approach to patients with possible cardiac chest pain](https://mJAonline.org)
- RACGP AFP article (2012) - [Cardiac stress testing: Stress Electrocardiography and stress echocardiography](https://www.racgp.org.au)
- RACGP AFP article (2012) - [Musculoskeletal chest wall pain](https://www.racgp.org.au)
- National Heart Foundation (2016) - [Guidelines for the management of acute coronary syndromes 2016](https://www.nationalheartfoundation.org.au)

#### Phone app
- ECG atlas

#### Listen
- FOAMEd podcast (2013) - [Low risk Chest Pain in GP land](https://www.foamed.com)

### Follow up/Extension Activities
- GP registrar to retrospectively audit the notes of the last ten patients in the practice who had troponin ordered for chest pain, compared to best practice guidelines (see MJA article from 2016 - [Appropriate use of serum troponin testing in general practice: a narrative review](https://mJAonline.org))
Clinical Reasoning Challenge

Gary is a 71 year old retired greenkeeper who is well known to you with a past history of well controlled hypertension. He presents to you with a few weeks history of vague chest discomfort, especially when walking uphill while playing golf. Today, he says that the pain came on during his morning walk and has persisted for the past 90 minutes.

You perform an ECG which is shown below.

QUESTION 1. What is the MOST LIKELY diagnosis?

QUESTION 2. What is the MOST IMPORTANT immediate management? List up to seven (7) initial management steps.
ANSWERS

QUESTION 1
What is the MOST LIKELY diagnosis?
• The most likely diagnosis is an inferior ST elevation acute myocardial infarction (STEMI)

QUESTION 2
What is the MOST IMPORTANT immediate management? List up to seven (7) initial management steps.
• Call for help
• Call an ambulance
• Establish IV access
• Glyceryl trinitrate
• Morphine if pain not settled
• Aspirin 300mg
• Monitor BP

The 2016 NHF guidelines do not recommend the routine use of oxygen unless the patient is hypoxic.