MBChB Year 2 Clinical contact in GP – Chest Pain 15th January 2026

Overview of the Chest Pain session in GP clinical contact

The Intended Learning Outcomes for this session are:

Undertake a clinical consultation & gather information relevant to the patient presentation
Describe & perform a clinical examination relevant to the patient presentation including vital signs
Practice formulating a differential diagnosis
Practice presenting the patient and be able to discuss the differential diagnosis and management options

The aims for this session are:

- Discuss how chest pain presents in practice.
- Practice consulting and examination (preferably cardiovascular).
- Link university learning to primary care and share your clinical experience.

Common to all sessions:

- refer to the Year 2 GP handbook, which covers the information common to all sessions.
- Please see Session plans for Clinical contact in GP year 2 (2025-26) also attached to this email to help you structure time with your group.
- Clinical skills protocols for student examination practice

Structure

- Introductions and review of previous learning.
- Student-led patient interaction.
- Summarize and plan next session.
- Identify 1–2 learning points for follow-up.

(Expert) patients **Suitable patients for the session (If this isn't possible, flexibility is allowed.)**
• History of chest pain (e.g., angina, MI, CABG, pericarditis). • Rhythm abnormality, heart failure, valve disease • For examination; Ideally with signs (AF, valve disease, heart failure).

Context for the session

Students will have covered the following in the two-week chest pain block:

In **Case-Based Learning** they will compare two different cases of: a 20-year-old man with central, sharp, chest pain (pericarditis); and a 52-year-old man with central chest pain (tight band) radiating into his left arm and jaw (STEMI)

In **Lectures, workshops and practicals**:

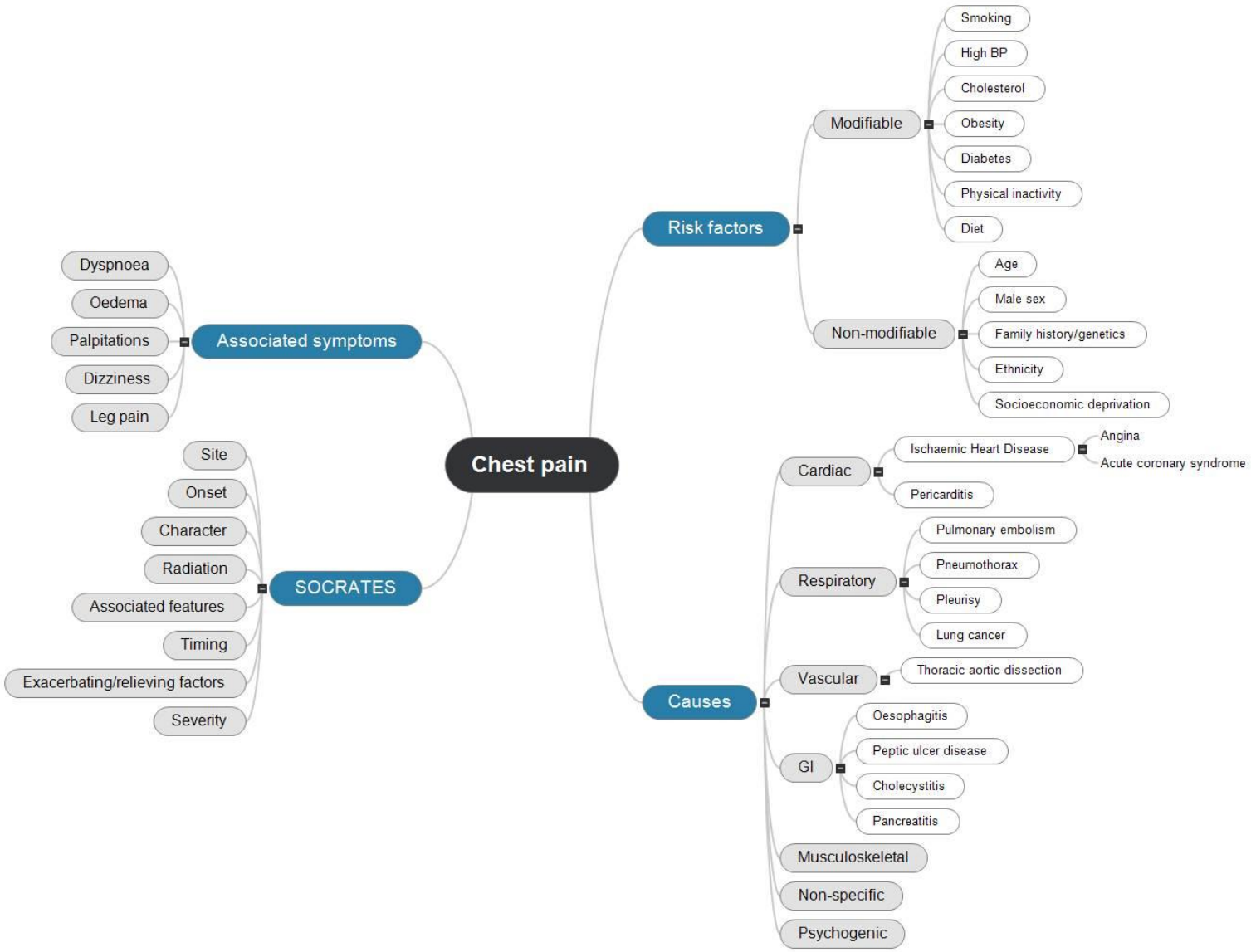
- Structures in the thorax that may give rise to pain
- Interpreting the ECG
- Systemic arterial hypertension and its complications
- Pathophysiology of ischaemic heart disease, investigation and risk factors for ischaemic heart disease
- Pharmacological manipulation of cardiac and vascular function
- Pulmonary Embolism
- Non-cardiovascular causes of chest pain & a rational approach to diagnosing chest pain

In their **Effective Consulting lab** they will:

Describe & demonstrate a focused history in a patient presenting with chest pain
Describe the features of serious causes of chest pain (red flags)
Describe how to effectively close a consultation and what constitues “safety netting”
Formulate a differential diagnosis in a patient presenting with chest pain
Demonstrate a patient centred explanation of angina and how to use glyceryl trinitrate (GTN) in the management of angina

Brainstorm for Chest Pain in GP clinical contact – see mind map on next page

- What do students know about chest pain and its causes?
- The students previous case was Anaemia, blood and clotting – how does their learning about anaemia or pulmonary embolism relate to a patient presenting with chest pain?
- How do patients with cardiac problems present?
- What are serious features that you look out for in a patient presenting with chest pain?
- What are the modifiable and non-modifiable risk factors?
- How do you assess a patient with chest pain?


Chest pain
Risk factors
Modifiable
Smoking
High BP
Cholesterol
Obesity
Diabetes
Physical inactivity
Diet
Non-modifiable
Age
Male sex
Family history/genetics
Ethnicity
Socioeconomic deprivation
Causes
Cardiac
Ischaemic Heart Disease
Angina
Acute coronary syndrome
Pericarditis
Respiratory
Pulmonary embolism
Pneumothorax
Pleurisy
Lung cancer
Vascular
Thoracic aortic dissection
GI
Oesophagitis
Peptic ulcer disease
Cholecystitis
Pancreatitis
Musculoskeletal
Non-specific
Psychogenic
Associated symptoms
Dyspnoea
Oedema
Palpitations
Dizziness
Leg pain
SOCRATES
Site
Onset
Character
Radiation
Associated features
Timing
Exacerbating/relieving factors
Severity

Student information

Notes on the clinical presentation of cardiovascular disease

Cardiovascular disease includes

- Coronary heart disease (myocardial infarction (MI) and angina)
- Cerebrovascular disease (transient ischaemic attack (TIA) and stroke)
- Peripheral vascular disease

In the UK there are approximately 2.3 million people living with coronary heart disease, 1.2 million with stroke or TIA, and 0.4 million with peripheral arterial disease[1].

The incidence of cardiovascular disease increases with age. Coronary heart disease is almost twice as common in men as women, and cerebrovascular disease is around a third more common in men.

Although the death rate from heart disease has fallen, ischaemic heart disease accounts for around a quarter of all deaths[1] and is the most common cause of mortality in the UK for men (and the second most common cause for women after Dementia and Alzheimer disease)[2].

Health inequalities: There is a recognised disparity in prevention and outcomes for cardiovascular disease. A paper in the Lancet Regional Health Europe says that marginalised populations experience high rates of CVD and cardiovascular risk factors with "*evidence that women, people from racial or ethnic minorities, older adults, and patients with mental health disorders are under-represented, underdiagnosed, and undertreated*".[3]

According to a fact sheet from the British Heart Foundation[1]: The premature (under 75) CVD death rate for Glasgow, Scotland (137 per 100,000 people; 2021/23) is more than three times than that of Hart in Hampshire, England (42 per 100,000) & early death rates from cardiovascular disease (before the age of 75) are highest in the north of England, central Scotland and the south of Wales, and lowest in the south of England.

Risk factors: By assessing risk factors, doctors can predict who is at greatest risk of developing cardiovascular disease in the future. Those individuals can then receive lifestyle advice or drug treatment aimed at improving modifiable risk factors.

Non-modifiable risk factors	Modifiable risk factors
• Age • Male sex • Family history • Ethnicity • Socioeconomic deprivation • Genetic factors	• Smoking • High blood pressure • High cholesterol • Obesity • Diabetes • Physical inactivity

Chest pain

Think about the anatomy of the thorax when considering causes of chest pain. **Cardiac**: Coronary heart disease (narrowing of the coronary arteries) Pericarditis (inflammation of the pleura) heart valve disease

- **Respiratory**: Pleurisy, Pulmonary Embolism, Pneumothorax
- **Vascular**: Thoracic Aortic dissection
- **Gastrointestinal**: Oesophagitis, Peptic Ulcer disease, cholecystitis or pancreatitis
- **Musculoskeletal**: Costochondritis, rib fracture, bone metastasis.
- **Other causes** to consider: Anxiety, fibromyalgia

A to E assessment

Assess and manage the acutely unwell patient with chest pain.

A patient who presents in pain requires rapid assessment and management

Assessing the pain:

Presenting complaint (PC) and history of presenting complaint (HPC)

Confirm if the patient is currently experiencing pain (see A to E assessment if applicable).
Begin with open-ended questions before narrowing down, for example:
"Can you describe the pain?"
"Tell me more about what you're feeling."
"Is there anything else about the pain that stands out to you?"

- **Site**
  Where is the pain? Can you point to it?
  Cardiac pain: usually central and diffuse; may radiate to arms, jaw, or neck.
  Musculoskeletal: often localized and reproducible on palpation.
- **Onset**
  When did it start? What were you doing? Sudden or gradual?
  Red flag: sudden severe pain → consider ACS, PE, or aortic dissection.
- **Character**
  Describe the pain (e.g., sharp, dull, crushing).
  Ischaemic: tight, heavy, constricting.
  Pericarditis: sharp/stabbing, sometimes eased by sitting forward.
  Pleuritic: sharp, worse on inspiration.
- **Radiation**
  Does it spread anywhere?
  MI: often radiates to arms, neck, jaw, or epigastrium.
  Aortic dissection: may radiate to back/interscapular region.
- **Associated Symptoms**
  Breathlessness, nausea, sweating, dizziness, palpitations.
  Feeling of impending doom → think MI.
- **Timing**
  How long does it last? Intermittent or persistent?
  Angina: 2–5 mins, relieved by rest.
  MI: persistent.
- **Exacerbating/Relieving Factors**
  What makes it better or worse?
  Angina: worse on exertion.

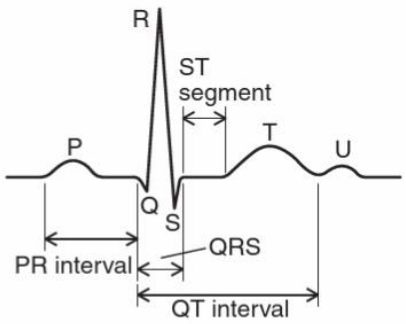
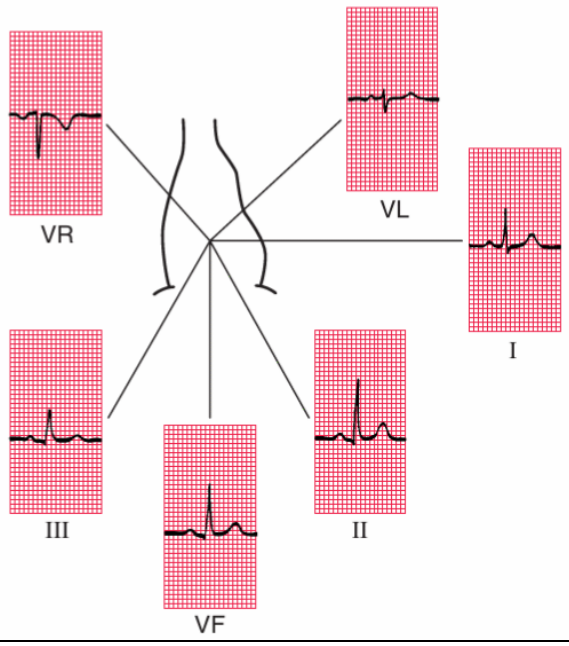
Pericarditis: worse lying down, better sitting forward.
MSK: worse with movement.

- **Severity**
  Rate on a scale of 0–10.
  Aortic dissection: often severe.
  Angina: mild to moderate.

SYSTEMS REVIEW – A brief overview (not exhaustive), what you ask depends on the presenting problem and situation
Cardiovascular: Heart failure symptoms, palpitations, dizziness, claudication/DVT signs **Respiratory**: Cough, wheeze **Gastrointestinal**: Appetite, weight, abdominal pain, bowel changes **Genitourinary**: Urinary symptoms, menstrual history, pregnancy **Neurological**: Headaches, faints, weakness **Musculoskeletal/Dermatological**: Joint pain, rashes, ulcers
PAST MEDICAL HISTORY
Previous CVD, diabetes, hypertension, hyperlipidemia, thromboembolism, malignancy
MEDICATION HISTORY
Medication: Drugs for CVD or risk modification; apply NIDDEM, 5 Cs, 5 As frameworks (see medication history)
FAMILY HISTORY
Premature coronary disease (<55 men, <65 women)
SOCIAL AND LIFESTYLE HISTORY
Social/Lifestyle: Consider risk factors for cardiovascular disease Occupation, living situation, connectedness, smoking, alcohol, activity levels,
PATIENT PERSPECTIVE: Ideas, concerns, expectations, impact and emotion (ICE-IE)
What are the patient's ideas, concerns and expectations about what is going on and what will happen now? What impact are their symptoms having on them? What emotions are associated with the situation?

Reading an ECG

One large square = 0.2s; one small square = 0.04s

ECG complex: • P: atrial contraction • QRS: ventricular contraction • T: repolarisation • U: origin uncertain (not often seen, may be pathological if it follows a flattened T wave)	
Leads "view" of the heart: • I, II and VL: left lateral surface • III aVF: inferior surface • VR: right atrium • V1-V6: horizontal plane, from front and left-hand side	
General approach to assessing: • Rate, rhythm and axis • P wave • PR interval • QRS wave • QT interval • ST segment • T wave • Escape rhythm	

Resources

How to Read an ECG | ECG Interpretation | EKG | Geeky Medics

eBooks (available via www.bristol.ac.uk/library): J R Hampton & J Hampton. The ECG made Easy. Ninth edition, Elsevier, 2019.

References:

1. BHF UK CVD Factsheet
2. Leading causes of death, UK - Office for National Statistics
3. Martínez-Sellés, M. Equity and cardiovascular disease: time to take it seriously
   The Lancet Regional Health – Europe, Volume 56, 101405 Equity and cardiovascular disease: time to take it seriously - The Lancet Regional Health – Europe