

# Ischaemic Heart Disease

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## Case 1

- 65 yr old female
- PMHx : Eczema, is a smoker 20/day
- Comes to see you complaining of central chest pain
- Present past few months.
- Comes on when gardening or when outside in the cold
- Settles if rests
- Not SOB and no radiation
  
- O/E – HR 75 regular, Sats 96% BP 150/88, HS normal, Chest- clear
  
- What is the diagnosis? What would you do?

# Angina

- Affects 2% of the population of the UK.
- Incidence increases with age
- Male > female

## CAUSES

- Mostly atheroma of the coronary arteries
- Anaemia
- Aortic stenosis
- Tachyarrhythmias
- HOCM
- Arteritis/small vessel disease
- Thyrotoxicosis

# Angina: Diagnosis

## Typical symptoms

- Constricting discomfort in front of the chest, neck shoulders, jaw or arms
- Triggered by physical exertion
- Relieved by rest or GTN within 5 mins

Typical angina- all 3 features

Atypical angina – 2 features

Non-anginal chest pain – one or none of the features

Other risk factors : inc age, male sex, smoking, diabetes, HTN, dyslipidaemia, FHx of premature CAD, h/o established CAD

## IHD Investigations

- Resting ECG
- Bloods – Lipids, FBC, Hba1c, U+E, LFTs, TFTs
- CVD risk
- Usually refer to cardiology- RACP
- Can provide GTN spray and consider Aspirin
- Safety net for any symptoms of MI/ACS

## IHD : Management in primary care

- Lifestyle: exercise, diet, smoking, driving and occupation
- Medication : GTN
- Betablocker or Calcium- channel blockers – to reduce symptoms of stable angina
- If both CI or not tolerated, long acting nitrate (ISMN), Nicorandil, Ivabridine
- Review response 2-4 weeks after starting

### Secondary prevention

- Consider Aspirin 75mg od
- Statin
- ACEI

## Case 2

- 80yr old male
- PMHx : Angina, HTN, DM
- Seen as emergency in morning surgery at 11am.
- Reports episode of chest pain whilst watching football at 8pm last night
- Felt like angina pain, but came on at rest and didn't go with GTN.
- Lasted 30 minutes then settled
- No further pain since

O/E – BP 126/78 HR- 80 sats 96%. HS normal, Chest- clear

What is the diagnosis? What would you do?

## Acute Coronary Syndrome/Myocardial Infarction

### History

- Pain in chest (or arms, back or jaw) lasting longer than 15m
- Assoc with nausea and vomiting, sweating or breathlessness or combination of these
- Assoc with haemodynamic instability (e.g. systolic <90)
- New onset pain, or abrupt deterioration of stable angina, with pain occurring frequently with little or no exertion and often lasting longer than 15m

## Suspected ACS/MI assessment

- Most people require referral or admission to hospital to confirm the diagnosis of ACS/MI
- An ECG and blood test for highly sensitive troponin to confirm diagnosis
  
- In GP land :
  - Examine the patient
  - Do an ECG

## Suspected ACS/MI :Management

### **Admission (Consider ambulance):**

- Abnormal clinical features – rr>30, hr 130, low BP, low O2 sats, high temp
  
- If current chest pain
  
- Complications – pulmonary oedema
  
- Are pain free, but pain within 12hrs and abnormal ECG or if ECG not available
  
- Offer GTN and Aspirin if in pain

## Suspected ACS/MI Management not requiring ambulance

Refer for same day assessment if :

- Chest pain in last 12hrs and normal ECG and no complications
- Chest pain 12-72 hrs and no complications

Within 2 weeks ref:

- Suspected ACS, now pain free, chest pain more than 72 hrs and no complications
- Use clinical judgement, interpretation of the 12-lead resting ECG, and high-sensitivity blood troponin measurement to decide how urgent this referral should be
- consider discussing prior management with a cardiologist

## Myocardial Infarction: Management in Primary Care

Lifestyle advice :alcohol, cardioprotective diet, exercise, loosing wt, stopping smoking

Cardiac rehab

Medications:

- Aspirin/Clopidogrel (both for 12m after NSTEMI, just 4 weeks after STEMI – depends on stent)
- ACEI
- Beta blockers
- Statins (reduce cholesterol to 5 or LDL <3 or 30% reduction)

# Primary Prevention of IHD

Estimate CVD risk

- Framingham
- JBS
- QRISK – [www.qrisk.org](http://www.qrisk.org)

Looks at multiple factors to determine 10 year risk of having MI/CVA

About you

Age (30-84):

Sex:  Male  Female

Ethnicity:

UK postcode: leave blank if unknown  
Postcode:

Clinical information

Smoking status:

Diabetic?

Angina or heart attack in a 1st degree relative < 60?

Chronic kidney disease?

Atrial fibrillation?

On blood pressure treatment?

Rheumatoid arthritis?

Leave blank if unknown

Cholesterol/HDL ratio:

Systolic blood pressure (mmHg):

Body mass index

Height (cm):

Weight (kg):

Calculate risk over  years.

## Lowering CVD risk : lifestyle changes

- Loosing weight to get BMI 25
- Reduce fat intake
- 5 portions fruit and veg a day
- Limit alcohol intake to <14units a week
- Reduce salt intake <6g/day
- Regular exercise – 30 minutes + aerobic activity most days
- Smoking cessation

## Lowering CVD risk : Treatment options

- Statins – if CVD risk 10% (atorvastatin 20mg)
- Treatment of hypertension – according to NICE