

OSCE

CKT

Chest Pain

Introduce
Myself
(Rapport)

**Hi, I am _____,
One of the doctors in
this clinic.**

**How may I help you
Today?**

History

Onset, Course, Duration, First time, Site, Radiation, Associated symptoms.

Aggravating Factors (Exercise, Deep breathing, Position, touch (Musculoskeletal), Stress)

Relieving factors (Rest, Medication, Leaning Forward).

Specific Q “ DD, Red flags, Risk Factors, End organ Damage”

Feeling, ICE, Impact.

Signposting, Summarize.

Pain

1 – 10 scale “1 = least, 10 = most” rate your pain

Have you taken any Medication for it?

Do you want me to arrange some Pain Killers for you?

Allergies

“I have asked Nurse to bring Pain Killers, It will take some time to work, Meanwhile, Is it OK to ask you some questions to know the cause?”

Specific Qs D.D.

CVD

- Racing heart
- SOB: Rest, Action, Daily chores
- Sweating “Feeling sick”
- **Pillows while sleeping**
- **Wake at night to take breath**
- **Pain with walking**

GIT

- Heart burn
- Bloating
- Relation to food
- Vomiting, Diarrhea
- Tummy Pain

Specific Qs D.D.

Respiratory

- URTI “pericarditis”
 - Runny nose
 - Sore throat
- LRTI “pleurisy with pneumonia”
 - Cough
 - fever

PE

- Leg pain
- Risk factors “OCPs, Travel, Immobilization, Surgery, Malignancy (Loss of weight, Loss of appetite, Bumps or lumps”

Specific Qs D.D.

Trauma

- Pneumothorax

Stress

- Related to stressful event?
- R u anxious person?
- Excessive worries about future or many things?

Autoimmune

- Rash, Joint Pain Or swelling

Zoster:

- rash on skin

Specific Questions “Risk Factors”



**CVS Risk
Factors**

ABCDEFGFS

CVS Risk Factors

A: Alcohol

B: Blood
Pressure

C:
Cholesterol

D: Diabetes
Mellitus

E: Exercise

F: Food

S: Smoking

Past History

Surgery

- Past 2-3 months

Medical illness

- HTN
- DM
- Cholesterol
- Liver
- Bleeding
- Stroke
- Lung (COPD)

History

Family History

Personal History “SADMA”

- Smoking, Alcohol, Illicit Drugs, Medication, Allergies.

Social history

- Work, with whom do you live?, Walking aids

Travel, Sexual history: Infections.

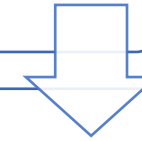
Examination

General Appearance

Vital signs

Colors

Systems (Targeted Exam)



Systems

- Pericardial Rub
 - Inspiration
 - Upright
 - Pleural Rub
 - Expiration
 - Basal Crackles, JVP, LL Edema
-
- Chest
 - Pneumonia
 - ENT
 - Viral URTI, Throat (GERD)

Investigation

ECG, Cardiac Enzymes

ESR, CRP (Pericarditis)

ECHO (Pericardial effusion/ Myocarditis)

CT Scan

Kidney (Uremic Pericarditis)

Lipid, Blood sugar

Diagnosis and Treatment

- **4Rs**
 - **Review**
 - **Referral**
 - **Red Flags**
 - **Reading Materials**

Diagnosis

MI

- Draw heart
- Blockage of heart vessels supplying muscles “Damage of muscles”
- The larger the duration the higher the damage
- Fibrinolytics “dissolve the occlusion”

Pericarditis

- Inflammation of heart covering due to viral infection, autoimmune, kidney disease
- Investigation : to rule out other causes
- Give NSAIDS + upright
- Monitor: ECG, Enzymes
- No relation wit MI
- Risk factors modification
- Go home if blood test normal, ECG normal, no symptoms

Diagnosis

PE

- Blood clot closing a blood vessel in the body mostly the leg and travel to lung arteries closing it causing lung damage.
- Investigations:
 - “d-dimer,
 - CT Angio/ VQ scan,
 - US on leg,
 - ECG, Cardiac enzymes,
 - Later Thrombophilia work-up

Diagnosis

Spontaneous Pneumothorax

- Air tapped between lung layers
- Usually, Underlying lung condition
- Mostly with No apparent cause

Bedside U/S: Unstable

- Confirmed by CXR
- Complex/ uncertain > CT

TTT: >25% and symptomatic: Aspiration and follow up 4 hours CXR

- >50% drainage chest tube
- CXR after 2-4 weeks
- HE "safety netting, physical activity, No scuba/ smoking,
- Travel "1 week after full resolution on CXR & Avoid strenuous activity till full resolution
- No smoking or Scuba Diving

FU with Pulmonologist"

TTT

- MI
 - Morphine: 2-5 mg IV (1mg/min)...maximum 15 mg
 - O2 ($\leq 92\%$)
 - Aspirin (325 mg)
 - Nitrate (every 5 min - up to 3 times).. Spray, sublingual tablet, patch
 - Clopidogrel, Heparin
 - B-Blocker
- Cardio-Consult
- Nearby Hospital: within 90 min door to balloon...PCI

Scenario

Jackie Maloney is a 50-year-old taxi driver. She smokes 30 cigarettes a day. She has asked for an appointment to see you today because she has noticed some pain in her chest when she lifts heavy suitcases or has to go up stairs.

The following information is on her summary sheet:

Past medical history

Mechanical low back pain—recurrent

Hiatus hernia—gastro-oesophageal reflux disease

Medication

Omeprazole

Allergies

Nil

Immunisation

Nil known

Family history

Irish family

Mother died of myocardial infarction aged 60

Instructions for the doctor

This is a short case.

Please take a history from Jackie. Ask for the results of a focused examination from the facilitator. Tell Jackie the most likely diagnosis and your management plan.

Instructions for the patient, Jackie Maloney

You are a 50-year-old taxi driver. You feel heaviness in your chest on exercise. The heaviness lasts for less than a minute if you stop what you are doing.

You are worried that this heaviness comes from your heart. It has been getting worse and Page 56 you have finally admitted that you need help. At the back of your mind is the fact that your mother died of a heart attack. You have not had any palpitations but when pressed admit that you have some shortness of breath at the same time as you get the chest pain. You last had pain two days ago.

The most likely diagnosis is angina.

The following information is on your summary sheet:

Past medical history

Mechanical low back pain—recurrent

Hiatus hernia—gastro-oesophageal reflux disease

Medication

Omeprazole 40 mg od

Allergies

Nil

Immunisations

Nil known

Family history

Irish family

Mother died of myocardial infarction aged 60

Social history

Taxi driver.

Examination

Looks well

No cyanosis

Height 1.65 m

Weight 87 kg

BMI 32 kg/m²

Waist circumference 94 cm

Blood pressure 130/80 mmHg

Pulse 72

Apex beat not displaced

Heart sounds normal, no added sounds

Chest clear

Peripheral pulses present, no abnormalities found, no oedema.

Suggested approach to the case

Establish rapport

Open questions to explore patient's ideas, concerns and expectations.

Specific questions

Detail about the heaviness/pain

Shortness of breath

Palpitations

Cough

- Relieving factors

Assess cardiac risk factors

- Smoking

- Diabetes

- Hypertension

- Hyperlipidaemia

- Family history

Explore lifestyle contributing factors, diet and exercise

Request permission to examine.

Most likely diagnosis

Angina—sensitive explanation without using medical jargon.

Planned management

Investigations

FBC, UEC, LFTs, fasting blood glucose, lipids—fasting, resting ECG, consider troponin

Treatment

- GTN spray
- Aspirin low dose
- Beta-blocker or nitrate or long-acting calcium-channel blocker

Check emotional impact of possible diagnosis

Arrange cardiology referral and further testing according to local protocols and facilities (see below)

Recommend urgent attendance at hospital/call ambulance if pain not settling at 10 minutes¹

Check and discuss implication for driving²

Ensure follow-up and offer health promotion (smoking cessation, immunisations, check alcohol intake, advice regarding exercise).

Instructions for the doctor

This is a short case.

Please respond appropriately to Dilip's questions.

Scenario

Dilip Patel is a 44-year-old plumber who lives in your rural town. Four weeks ago he had severe chest pain while working and was admitted to hospital with acute confirmed myocardial infarction and triple vessel disease for which he had a bypass graft (CABG) surgery in a metropolitan tertiary hospital. Dilip is on the following medications:

- Atorvastatin 80 mg od
- Glyceryl trinitrate spray prn
- Aspirin 100 mg od
- Clopidogrel 75 mg od
- Perindopril 5 mg od
- Metoprolol 50 mg od.

Past medical history

Nil

Allergies

Nil

Immunisations

Nil recorded

Family history

Nil recorded

Social history

Plumber

Ex-smoker.

Instructions for the patient, Dilip Patel

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You are a 44-year-old plumber in a rural town. Four weeks ago you had severe chest pain while working and you were admitted as an emergency to the local hospital. You were told that you had had a heart attack. After lots of tests you had urgent bypass surgery in a big city hospital.

You are now back home. On discharge from the hospital you were given a long list of medications to take. You have never needed tablets before and keep forgetting to take them.

You are unsure what the tablets are for as you assumed the bypass surgery cured the problems. You have all the tablets with you in a shopping bag in case the GP asks you what you are taking. You have the following questions for the GP:

- why do I need to take tablets when the operation fixed the problem?
- what does each tablet do?
- how long will I be on these tablets?
- do they have any side effects?

You take:

- Atorvastatin 80 mg once per day
- Glyceryl trinitrate spray as required for chest pain
- Aspirin 100 mg once per day
- Clopidogrel 75 mg once per day
- Perindopril 5 mg once per day
- Metoprolol 50 mg once per day.

You quit smoking 10 years ago and do not drink alcohol. You do no regular exercise.

Once the GP has discussed your worries about the medication you will be interested to hear any other advice the GP offers. If the GP starts to give other advice before answering your concerns about the medication you will get quite cranky and irritable.

Suggested approach to the case

Establish rapport

Explore Dilip's understanding and concerns about his medication

Ask if there are any other queries today:

Why do I need to take tablets when the operation fixed the problem?

The operation has bypassed the blocked blood vessels or 'pipes'. You need to keep the new vessels or 'pipes' open and prevent blockages in any other of your blood vessels. This is best done with a healthy lifestyle and medication.

What does each tablet do?

- Atorvastatin 80 mg tablets help to stop fat build-up in the blood vessels along with a healthy diet that includes five serves of vegetables and two serves of fruits per day.¹
- Glyceryl trinitrate spray prn helps to open up the blood vessels to get more oxygen to the heart if you have any chest pain.²
- Aspirin 100 mg od and Clopidogrel 75 mg od both 'thin' the blood. They reduce the risk of blood clots and another heart attack.¹
- Perindopril 5 mg od is an ACE inhibitor. It works on a chemical in the kidney that makes your blood pressure go up. An ACE inhibitor protects the kidneys and keeps your blood pressure down, which reduces the risk of another heart attack.¹
- Metoprolol is a beta-blocker. This blocks any excess adrenaline from damaging your heart and blood vessels by slowing your heart rate and lowering your blood pressure.¹

How long will I be on these tablets?

You will be able to stop the Clopidogrel a year after your surgery provided there are no further risks. Normally it is best for people to stay on the other medication. This will be reviewed at regular

intervals.

Do they have any side effects?

All medications have potential side effects. If you are concerned if something might be a side effect either phone or come in for advice. The common ones are:²

- Atorvastatin—muscle pains
- Glyceryl trinitrate spray prn—headaches, dizziness
- Aspirin—stomach pains (gastritis)
- Clopidogrel—bleeding, diarrhoea
- Perindopril—cough, reduced kidney function
- Metoprolol—tiredness, cold hands and feet, impotence.

If you have time, raise other common concerns—understanding of procedure done, return to driving (minimum four weeks post-CABG for private car), return to work, advice about sexual activity, mood disturbance post-heart attack.

Summarise information

Surgery was needed to bypass the blocked blood vessels

Aim now to get fit and stay healthy by:

- taking medication as prescribed
- regular check-ups—blood pressure, lipids
- not smoking
- graded increase in exercise
- healthy diet—offer dietician referral
- establish cardiac rehabilitation program.²

Offer to provide printed patient handout on any of these topics.