

7 Chest Pain History

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Scenario

Mr Davidson a 55 year old gentleman has been presented to the Medical Admissions Unit complaining of chest pain. Take a history from him.

Script

Candidate: Hello Mr Davidson? My name is Jamila I am a final year medical student, and I would like to ask you a few questions, is that OK?

Patient: Yes, that's fine.

Candidate: I understand that you have had some chest pain. Can you tell me about it please?

Patient: Yes, it came on in the early hours of this morning whilst I was in bed. I thought it was indigestion so I took some Gaviscon but it didn't go away so the wife phoned NHS direct. They told her that I should go straight to hospital in case it was a heart attack. I didn't think that it was really necessary for me to come up here, but the wife insisted, you know?

Candidate: I see, can you remember what time the pain started?

Patient: It was about four in the morning I think.

Candidate: And how long did it last altogether.

Patient: It is still there now, but not as severe as it was earlier on.

Candidate: Right, can you tell me where about in your chest the pain is?

Patient: Yes doc, it's right here (*patient rubs his fist over the centre of his chest*)

Candidate: Does it go any where else?

Patient: No, not really.

Candidate: Does it go to your neck or arm at all?

Patient: Well, my throat does feel a bit tight, but I was doing a lot of shouting at the football the other night on the telly so I put it down to that, you know?

Candidate: I see, can you describe the nature of the pain for me please?

Patient: Well, as I said earlier, it feels like indigestion, but worse.

Candidate: Can you tell me what you mean by indigestion, as it can mean different things to different people?

Patient: Well, it is like a tightness in the chest here (rubs sternum with fist again) and it goes up to my neck.

Candidate: Ok, I see. Have you ever had it before?

Patient: I've had it a couple of times before, once after I'd had a big Sunday dinner and the other time was when I was playing footy with the kids in the garden

Candidate: Did you tell your own doctor about it?

Patient: No, I just put it down to indigestion.

Candidate: Right. Have you found anything that gives you relief from the pain.

Patient: Well, it is a little bit easier when I lean forward.

Candidate: I see, and is there anything that makes the pain worse?

Patient: No, not really.

Candidate: Have you had any other symptoms associated with the pain?

Patient: Like what doc?

Candidate: Well, nausea, vomiting, sweating, anything like that?

Patient: No, I don't think so.

Candidate: What about difficulty in breathing or coughing?

Patient: No, the breathing is fine although I do have a bit of a smoker's cough.

Candidate: Right, I will come back to the smoking shortly. Have you had any other medical problems in the past?

Patient: No, always been fit and well.

Candidate: Can I just check on a few specific conditions? Heart problems, for example angina or a heart attack?

Patient: No.

Candidate: High blood pressure?

Patient: Oh yes, I have been on blood pressure tablets for years.

Candidate: OK, I'll make a note of those in a minute. Diabetes?

Patient: No, but it does run in the family.

Candidate: Right, again I'll come back to your family history in a moment. Finally what about your about your cholesterol?

Patient: Never had it checked doc, but the wife is always moaning about my diet. Says I should eat more salads, but I just can't stick them.

Candidate: OK, now can you tell me what medication your are on please?

Patient: It's all on this list. Hands over repeat prescription sheet with 2 antihypertensive drugs and aspirin on.

Candidate: Thank you. Now, you mentioned that diabetes runs in your family, are there any other conditions that run in the family?

Patient: Don't think so.

Candidate: Are your parents still alive?

Patient: My mum is, but my dad died suddenly in his late 60s. Come to think of it, the doctors said that it was probably his heart.

Candidate: I see, do you have any brothers or sisters?

Patient: Yes, one brother and he is well, as far as I know.

Candidate: Good. Now can I ask you about your smoking? What age were you when you started to smoke?

Patient: *Laughs.* I started when I was at school, it was the thing to do back then.

Candidate: How many cigarettes do you smoke now?

Patient: About 20 a day.

Candidate: Right, and how much alcohol would you drink in an average week?

Patient: It all depends really, I go to the pub most nights after work.

Candidate: And how many pints would you have?

Patient: 3 or 4, then a couple of cans when I get home.

Candidate: I see. What is your job?

Patient: I work on the tracks at the car plant down the road.

Candidate: Ok. Finally then, have you noticed any other problems with your health recently? For example problems with weight loss, or with the bowels or water works?

Patient: I get a bit constipated sometimes, but no everything else is fine.

Candidate: Ok. Well if I can just finish with a quick summary then: you had a severe episode of chest pain that started at about 4 o'clock this morning and is still there now. You have had a couple of episodes of chest pain in the past but have never been diagnosed with heart problems before, although you do have high blood pressure and you are a life long smoker. Is that correct?

Patient: That's about it doc.

Candidate: Good, well thank you very much for your help. Goodbye.

Likely diagnosis (Voiceover)

In the exam, you may be asked to give a diagnosis. The main differential diagnosis in the above case, lies between cardiac ischaemia (acute coronary syndrome) and oesophageal spasm, although the fact that the pain is partially relieved by sitting forward raises the possibility of pericarditis. Given the patient's risk factors for ischaemic heart disease (i.e. smoking, hypertension and positive family history) then it would be safest to assume that this is cardiac pain until proven otherwise.

Key Points

- Chest pain is the commonest cause of referral to the medical admissions unit.
- An accurate history is vital in establishing the likely diagnosis and also the timing of key investigations such as the 12 hour serum troponin level.
- Start the consultation with an open question e.g. "Tell me about the pain that you have had" and then narrow down on to specifics such as "Did the pain radiate to your neck?".
- Always try and establish whether patients have been investigated previously for chest pain. A normal coronary angiogram the previous month would make a cardiac cause for the chest pain very unlikely.
- Always ask about risk factors for ischaemic heart disease as this is the most important condition to exclude. It would be unwise to discharge a patient with chest pain who has 2 or more risk factors for ischaemic heart disease without first excluding an acute coronary syndrome. Remember, a normal electrocardiograph result does not exclude an acute coronary syndrome.

Common Mistakes

- Not starting the consultation with an open question.
- Not focusing down on to the specifics of the history of the chest pain e.g. time on onset, duration, site etc.
- Forgetting to check specifically for risk factors associated with ischaemic heart disease.

- Assuming that the patient's explanation for the pain is the correct explanation e.g. indigestion.

Marking Sheet

1. 2 marks for the candidate introducing themselves and establishing a rapport.
2. 2 marks for starting with an open question.
3. 6 marks for identifying the time of onset, duration, site, radiation, nature, previous episodes, relieving and exacerbating factors, and associated symptoms.
4. 2 marks for relevant past medical history, including cardiac risk factors.
5. 1 mark for relevant family history
6. 1 mark for drug history
7. 2 marks for occupational history, including back-years smoked and units of alcohol drunk per week.
8. 1 mark for brief systemic enquiry.
9. 2 marks for a summary at the end.
10. 1 mark for thanking the patient.