

Sample case study

Jacob Simms



CANDIDATE INSTRUCTIONS:

Jacob Simms, 28 years old, presents to the office with a 3-week history of a pressure sensation in his neck.

IN THE NEXT 8 MINUTES:

- OBTAIN A FOCUSED AND RELEVANT HISTORY.
- CONDUCT A FOCUSED AND RELEVANT PHYSICAL EXAMINATION.

After the 8-minute warning signal, the examiner will ask you questions related to this patient.

As you proceed with the physical examination,

- SAY what you are doing
- SAY what you are looking for
- DESCRIBE any relevant findings.

Do NOT perform genital, rectal, vaginal, breast, reflexes, or other sensitive examinations. If such examination is required, clearly inform the examiner.

Jacob Simms

You're a 28-year-old man who is a high school teacher. For the past 3 weeks, you've been feeling pressure in your neck (under your "Adam's apple"). You first noticed it after recovering from a cold.

TIMELINE

4 weeks ago	Over the last month	3 weeks ago	Today
<ul style="list-style-type: none">– Had a cold with 2-day fever, as well as coughing and runny nose– Cold symptoms resolved in 1 week; noticed pressure in neck	<ul style="list-style-type: none">– Tired all the time– Constipated– Hair loss and dryness– Nail breakage– Weight gain– Feel cold all the time	<ul style="list-style-type: none">– Felt pressure in neck when swallowing– Neck started looking bigger than usual	<ul style="list-style-type: none">– Neck still bigger than usual

HISTORY OF PRESENTING PROBLEM

Cold followed by a pressure in neck

Four weeks ago

- You had a cold.
- The fever lasted about 2 days.
- The sore throat, coughing, and runny nose lasted for about 1 week.

- When the sore throat got better you noticed a pressure in your neck that didn't go away (you use the word "pressure" to describe the sensation).
- You took 2 days off work when you had the fever. You've been back at work since then.

Three weeks ago

- You stopped coughing, and the sore throat resolved.
- You started feeling some pressure when you swallowed in the lower front part of your neck, below your Adam's apple (see Simulation Notes).
 - The pressure has been constant since you first noticed it.
 - The pressure sensation gets aggravated when swallowing.
- You also noticed that your neck was starting to look a bit bigger, about the same time you noticed the increased pressure sensation when swallowing. It's been about the same since then although you can't be sure.
 - You've had no problems swallowing or breathing.
 - Your neck isn't sore when you touch it.

Tiredness

- Over the last month, you've been feeling a little more tired than usual. But you think it's probably because you're so busy at work.

Other symptoms

If the candidate asks you a general or open-ended question about the symptoms listed below, ask **"Like what?"** so that the candidate needs to specify.

- Over the last month, your general health has been getting progressively worse.
- If the candidate asks about gastrointestinal symptoms, your stools are harder to pass and less frequent.
 - You now have a bowel movement every other day instead of once daily.
- If the candidate asks about weight changes, you've gained 5 lb (2.3 kg) in the last month even though you haven't increased your food intake.
- If the candidate asks about cold sensitivity, you feel cold all the time.
- If the candidate asks about exercise tolerance, you have less endurance when you do physical activities (e.g., when you play soccer).
- If the candidate asks about hair changes, your hair seems dry, and you've noticed some hair loss.
 - There are no patches of hair loss on your scalp.
 - Your eyebrows also seem thinner.
- If the candidate asks about nail changes, your nails are breaking easily.
 - Keeping them short seems to help.
- If the candidate asks about sleep, despite sleeping 8 hours per night (your usual sleep), you feel like you want to sleep all the time. You don't feel refreshed when you wake up.

MEDICAL HISTORY

- You're otherwise in good health.

- You take no medications.
- You have no allergies.
- You've never had any symptoms like this before.

FAMILY MEDICAL HISTORY

- Your mother had thyroid problems, but you don't know the diagnosis or treatment.

SOCIAL AND LIFESTYLE HISTORY

- You're single and live alone in an apartment.
- You haven't had sex in the last 6 months.
- You eat a balanced diet and follow Canada's Food Guide.
- You play soccer twice a week and go for walks.
- You don't smoke or use recreational drugs.

SIMULATION NOTES

You're feeling pressure in the lower front part of your neck:



Location of neck pressure

Image source

Physical examination

Candidates may perform the following manoeuvres on you during the physical examination.

General examination

- The candidate may observe your complexion (skin colour), skin, and nail condition.

- The candidate may check for palmar erythema (a skin condition that makes the palms of your hands turn red). If your palms are a little sweaty say that this is unusual for you.

Head, neck, and thyroid examination

The candidate may:

- Inspect your neck for visible swelling.
- Look in your throat for tonsil swelling **[examiner prompt]**.
- Feel all around your neck for enlarged nodes (under your chin, front of neck, back of neck, and above the collar bone).
- Feel (palpate) your thyroid (see illustration). Some candidates may perform this examination from the front, but some candidates will also examine from behind.
- Palpate for the size of your thyroid, presence of a mass, and tenderness.
 - There's no tenderness.
- Ask you to swallow a drink of water so that they can feel the thyroid move.

[If the thyroid examination is conducted, the examiner will provide the candidate with findings.]

 - There's pressure at swallowing, but it doesn't prevent you from swallowing. There's nothing to simulate, but you'll say that you notice the pressure more.
 - The pressure sensation is also more pronounced if the candidate asks you to stretch or turn your neck, but you always feel a mild pressure even in a neutral position.

The examiner will:

- Prevent the candidate from performing an oral examination **[Examiner prompt]**.

Peripheral examination:

- The candidate may press on your shins to look for swelling.

Physical examinations that are not allowed

On the morning of the exam, remind the examiner to ensure that tests such as plantar reflexes, funduscopy, and inguinal, testicular, and rectal examinations must **not** be done.

During the encounter, if the candidate tries to initiate one of these physical examinations and the examiner does not intervene, say, ***"This exam is not allowed. Please address the examiner."***

SP SAFETY AND MODESTY

Everyone working at the exam site, including SPs, has a right to a safe and respectful work environment. If something happens that makes you feel uncomfortable, violates your personal boundaries, is very painful, or is unsafe, you may protect yourself.

SP CONDUCT DURING ORAL QUESTION(S)

When the examiner asks the candidate an oral question at the end of the encounter, you should disengage and stop interacting with the candidate.

Information for the standardized participant (SP)

Characteristics: Male, 28 years old.

- Comfortable with a physical examination
- Comfortable with neck and head exam
- Clean-shaven neck; no scars or lumps in neck
- Short beard is OK
- No rashes
- No nail polish or false nails

Starting position: You're sitting on the examination table in the doctor's office.

Clothing: You're wearing shorts and a hospital gown with no T-shirt underneath. Your fingernails are short and without nail polish.

Make-up: None

OPENING STATEMENT:

"I feel this pressure in my neck."

SP BEHAVIOUR, AFFECT, AND MANNERISMS:

- You're calm and very cooperative, and you answer all the candidate's questions fully.
- You appear tired. You're slouching a little.

QUESTION(S) SP MUST ASK:

- None

QUESTION(S) SP MAY ASK:

- None

Information for the SP trainer only

PERTINENT NEGATIVES

The absence or presence of certain symptoms allows the candidate to assess the patient, make a diagnosis, establish a management plan, etc. Only the symptoms **present** are mentioned in the script. Therefore, when a candidate takes a history and asks about certain symptoms not in the script, the SP's answers should be, "**Normal,**" "**No,**" "**I'm not sure,**" etc.

Negative findings that are important in this case:

- No swelling of legs
- No change in skin colour (complexion)
- No patches of hair loss on scalp
- No pain in the neck

SPs don't have to memorize this list.

TRAINING FOR PHYSICAL EXAMINATION

The candidate is expected to do the following:

- Show sensitivity to the patient's comfort during the examination (i.e., appropriate draping and exposure, appropriate positioning)
- Ask for vital signs (see **EXAMINER ORAL PROMPTS**)

Inspect

- Neck for visible adenopathy
- Oropharynx for tonsillar enlargement
- Abdomen for signs of distention or organomegaly and splanchnomegaly
- Skin for rashes or lesions

Percuss

- Abdomen to assess size of liver
- Abdomen to assess size of spleen

Palpate

- Anterior and posterior neck, including submandibular, submental, and supraclavicular areas
- Thyroid gland (see illustration)
- Both axillae
- Abdomen
 - Splenic enlargement starting from right lower quadrant (RLQ)
 - Liver enlargement starting from RLQ
- Groin (candidate is expected to indicate intent to examine both groins) (see **EXAMINER ORAL PROMPTS**)

Auscultate

- Both lung fields

Information for the physician examiner only

Assessment criteria:

KEY FEATURES:

Given a patient presenting with pressure in the neck, the candidate will do the following:

1. Elicit symptoms consistent with hypothyroidism
2. Conduct an appropriate thyroid examination
3. Indicate hypothyroidism as the likely diagnosis
4. Initiate appropriate investigations and management of hypothyroidism

EXAMINER PHYSICAL EXAMINATION INSTRUCTIONS:

The SP is trained to simulate physical findings, but you will need to provide verbal findings under certain circumstances. For example, some examinations are never performed on the SP (such as plantar reflexes, funduscopy, and inguinal, testicular, pelvic, and rectal examinations) and some physical findings are impossible for the SP to simulate. The findings you are required to provide verbally are located in the **Examiner Oral Prompts** section.

If the candidate looks to you for findings that are not listed in the oral prompts section, say **"Normal, please continue,"** OR if "normal" is inappropriate in this patient's context, say **"Noted, please continue."**

EXAMINER ORAL PROMPTS:

If the candidate initiates or requests vital signs, state, **"Blood pressure is 110/70 mm Hg; heart rate is 68/min; respiratory rate is 14/min; and temperature is 37.2°C."**

Once the candidate has completed the examination of the thyroid, state, **"During your examination of the thyroid, you find a nontender and diffusely enlarged thyroid gland."**

If the candidate does not complete a thyroid examination, do not give them this result.

If the candidate indicates that they want to examine the inguinal areas for lymphadenopathy, state, **"Normal. Please move on."**

If the candidate initiates an oral examination, state, **"Normal. Please move on."**

Asks about symptoms consistent with hypothyroidism (MUST include at least **FOUR** of the following):

- Fatigue
- Weight gain
- Constipation
- Cold intolerance
- Dry hair or hair loss
- Brittle nails
- Decreased physical endurance

Asks about difficulty swallowing (dysphagia)

Examines thyroid for size, tenderness, and lump

Observes neck for thyroid enlargement

Examines both lobes of the thyroid [Ensure candidate has located the thyroid gland between the cricoid and the sternal notch]

Examines for tenderness

EXAMINER ORAL QUESTIONS:

Examiners: Ask the questions in *italics* at the 8-minute signal. Please read the questions as written and only repeat a question once if necessary. Begin by stating,

"You have 3 minutes to answer the following 3 questions."

"What is your diagnosis?"

"Which initial investigations are indicated at this point?"

Examiner to hand the **Laboratory Results** to candidate, then ask, ***"What is your immediate management of this patient?"***

EXAMINER NOTE:

Please retrieve the **Laboratory Results** sheet from the candidates before they leave the room.

History Taking

Communication Skills
