

Instructions

- **Review** the patient record summary, clinical examination findings, and investigation results.
 - **Your examiner** will ask you a series of questions based on this information.
 - **You have 15 minutes** to complete this case.
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Patient Record Summary

- **Name:** Amelia Dawson
- **Age:** 48 years
- **Gender:** Female
- **Indigenous Status:** Not Aboriginal or Torres Strait Islander
- **Allergies and Adverse Reactions:** Nil known
- **Medications:**
 - Amitriptyline 25 mg at night (for chronic tension-type headaches)
 - Atorvastatin 10 mg daily (for hyperlipidaemia)
- **Past History:**
 - Tension-type headaches, on amitriptyline for the past 6 months with good control until recently.
 - Hyperlipidaemia, diagnosed 2 years ago.
- **Social History:**
 - Works as a librarian.
 - Non-smoker, occasional glass of wine with dinner.
 - Lives with her partner, no children.
- **Family History:**
 - Mother: Migraines
 - Father: Deceased from stroke at 68 years old.
- **Vaccination and Preventative Activities:**
 - Up to date with all routine vaccinations
 - Last GP check-up 6 months ago.

Scenario

Amelia Dawson, a 48-year-old librarian, presents to your clinic with a **2-week history of worsening headaches** and **blurred vision**. She describes the headaches as a dull, constant ache that is centred around her temples and worsens throughout the day. She has been waking up with headaches and mentions that her **vision has become blurry**, especially when reading or focusing on nearby objects.

Amelia reveals that she has been using a new herbal supplement she purchased online about a month ago. It was advertised as a “natural brain booster” with ingredients like ginkgo biloba and unknown herbal blends. She was convinced by the positive online reviews and thought it might help her stay focused and alert at work.

She has been on amitriptyline for tension-type headaches, which initially worked well, but she feels it is no longer effective. Amelia is worried that her symptoms might be related to something serious like a brain tumour, given her family history of stroke.

She denies nausea, vomiting, fever, or recent infections, and has no history of head trauma. However, she mentions feeling more anxious about her health recently and is looking for reassurance.

Clinical Examination Findings

- **General Appearance:** Appears slightly anxious but is otherwise well.
- **Vital Signs:**
 - BP: 130/85 mmHg
 - HR: 78 bpm, regular
 - Temp: 36.9°C
 - RR: 14/min
 - SpO2: 98% on room air
- **Neurological Examination:**
 - Cranial Nerves: Pupils equal and reactive to light, no papilledema, mild difficulty with accommodation on the right.
 - Motor: Normal tone, power 5/5 in all limbs.
 - Sensory: No sensory deficits.
 - Reflexes: Normal reflexes bilaterally.

- Coordination: Normal finger-nose test and heel-shin test.
 - **Fundoscopy:** No papilledema or haemorrhages noted.
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Investigation Results

- **Blood Tests:**
 - Full Blood Examination: Normal
 - CRP: Normal
 - ESR: 20 mm/hr (slightly elevated)
 - Electrolytes: Normal
- **CT Brain (non-contrast):** No intracranial masses or signs of haemorrhage.

Examiner Notes

Case: Amelia Dawson

Patient Information

- **Age:** 48 years
- **Gender:** Female
- **Indigenous Status:** Not Aboriginal and/or Torres Strait Islander
- **Year:** 2024
- **ICPC-2 Codes:** N – Neurological

Competency Outcomes:

1. Communication and Consultation Skills:

- Recognising the importance in effective communication, building rapport and exploring the patient's concerns.
- Take a thorough history and ask open-ended questions to uncover hidden symptoms or history.

2. Clinical Information Gathering and Interpretation:

- Consider a wide range of differential diagnoses.
- Recognize red flags that could indicate serious conditions.

3. Diagnosis, Decision-Making, and Reasoning:

- Formulate a working diagnosis and be prepared to adjust the management plan based on new information.

4. Clinical Management and Therapeutic Reasoning:

- Develop an appropriate management plan considering acute care and long-term follow-up.

5. Preventive and Population Health:

- Recognize when urgent referral to a specialist or hospital is needed.

Case Features

- **Condition:** Headache and visual changes.
- **Key Focus Areas:**
 - Discussing symptoms suggestive of a common cause of headache.

- Assessing for red flags like sudden onset, vision changes, and neurological symptoms.
- The twist: **Amelia has been using a new dietary supplement containing “natural herbs” purchased online**, which has been causing her symptoms due to potential contamination or interactions with her medications.

You have 15 minutes to complete this case.

- Question 1 – 4 minutes
- Question 2 – 1 minute
- Question 3 – 3 minutes
- Question 4 – 3 minutes
- Question 5 – 4 minutes

Twist: The Hidden Supplement Use

- Amelia reveals that she has been using a new herbal supplement she purchased online about a month ago. It was advertised as a “natural brain booster” with ingredients like **ginkgo biloba** and **unknown herbal blends**. She was convinced by the positive online reviews and thought it might help her stay focused and alert at work.
- **Significance of the Twist:** Some over-the-counter supplements, especially unregulated ones purchased online, may contain **undisclosed ingredients** like **stimulants or corticosteroids**, which can cause side effects such as headaches, anxiety, and visual disturbances. Additionally, some herbal components like ginkgo biloba can increase the risk of **bleeding** or interact with other medications like amitriptyline.

Questions and Suggested Answers

1. Clinical Assessment:

- **Prompt:** What is your provisional diagnosis and what are your differentials?
 - **Answer:** The provisional diagnosis is **medication-related headaches** due to possible interaction between the new supplement and her current medications. Other differentials include medication-overuse headache, tension-type headache

exacerbation, or a rare possibility of increased intracranial pressure given her visual changes.

- **Prompt:** What additional questions would you ask to narrow down your diagnosis?
 - **Answer:** I would ask about any recent changes in her medication, new supplements or herbal remedies, and whether she has experienced other symptoms like palpitations, jitteriness, or changes in her appetite or sleep. The key question is, "**Have you started taking any new supplements, herbal remedies, or over-the-counter medications recently?**"

2. Evidence Interpretation:

- **Prompt:** What would be your next steps if Amelia admits to using an unregulated supplement?
 - **Answer:** I would advise **immediately stopping the supplement** and explain that some unregulated products can have **undisclosed ingredients** that may be causing or worsening her symptoms. A review of all her medications and potential interactions is necessary. I would also **monitor her symptoms closely** and arrange follow-up in 1-2 weeks to reassess, ensuring there is no serious underlying condition.

3. Patient Communication:

- **Prompt:** How would you explain the potential risks of using unregulated supplements to Amelia?
 - **Answer:** "While some supplements are safe, those purchased online, especially if they aren't from a reputable source, may contain ingredients that are not listed on the label. These can interact with your medications and cause side effects like headaches or vision changes. It's best to stop using it and see if your symptoms improve. We can also explore safer ways to support your health and well-being."

4. Treatment Options:

- **Prompt:** What is your management plan for her headaches and vision changes?
 - **Answer:** Immediate cessation of the herbal supplement is key. Additionally, advising rest, good hydration, and limiting screen time may help with headache relief. Continue the amitriptyline if it has

been beneficial previously, but adjust the dose if required. I would also arrange follow-up in 1-2 weeks and refer her for a review by an **ophthalmologist** if her visual symptoms persist, to ensure there are no other causes.

5. Follow-Up and Referral:

- **Prompt:** When would you consider further referral or more urgent investigations?
 - **Answer:** Referral to a neurologist or ophthalmologist would be considered if her symptoms worsen or fail to improve after stopping the supplement. Urgent referral would be warranted if she develops new symptoms like sudden severe headache, neurological deficits, or if vision changes worsen. Re-evaluation of intracranial pathology might also be necessary if red flags develop.
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Examiner Checklist

- **Clinical Knowledge and Skills:**
 - Recognized the importance of thorough history-taking, including supplement use.
 - Adjusted the diagnosis based on the new information about the herbal supplement.
 - Demonstrated an understanding of potential interactions and adverse effects.
- **Patient Communication:**
 - Provided clear information about the risks of unregulated supplements.
 - Offered practical advice on symptom management and appropriate follow-up.
 - Addressed the patient's concerns empathetically and reassured her.
- **Evidence-Based Practice:**
 - Utilized clinical guidelines for managing medication and supplement interactions.
 - Explained the rationale behind stopping the supplement and arranging follow-up.

This case challenges registrars to consider atypical causes of symptoms, emphasizing the importance of detailed history-taking. The discovery of supplement use changes the course of the case, highlighting the need for vigilance in uncovering all possible factors contributing to a patient's presentation.