Case Discussion: Memory Concerns in an Elderly Patient

Patient Information:

- **Name (Patient):** Thomas Mitchell
- **Age:** 78 years
- **Gender:** Male
- **Indigenous Status:** Not Aboriginal or Torres Strait Islander
- **Year:** 2024
- **ICPC-2 Codes:** P – Psychological/Cognitive

Competency Outcomes:

1. **Communication and Consultation Skills:**
    - Demonstrates empathetic communication with the patient and spouse.
    - Elicits a thorough history related to memory concerns and cognitive changes.
2. **Clinical Information Gathering and Interpretation:**
    - Gathers relevant history, including cognitive, functional, and behavioural symptoms.
    - Identifies potential reversible and non-reversible causes of cognitive decline.
3. **Diagnosis, Decision-Making, and Reasoning:**
    - Formulates a differential diagnosis including Alzheimer's disease, vascular dementia, and reversible causes like depression or vitamin deficiencies.
    - Plans appropriate first-line investigations and referral when necessary.
4. **Clinical Management and Therapeutic Reasoning:**
    - Outlines the initial approach to managing cognitive decline and involving multidisciplinary support.
    - Provides education and guidance for the patient and caregiver.
5. **Preventive and Population Health:**
    - Recognizes the importance of lifestyle factors and managing comorbidities in slowing cognitive decline.

Instructions to the Candidate:

- **Review** the patient information from Thomas and his wife, Margaret.
- **Discuss** your differential diagnosis and the initial workup required to assess cognitive decline.
- **You have 15 minutes** for this case discussion. The examiner will ask questions to guide your response.

Scenario:

Thomas Mitchell, a 78-year-old retired accountant, is brought in by his wife, Margaret, who expresses concerns about his **increasing forgetfulness** over the past 12 months. She reports that Thomas has become more forgetful with recent events, repeats questions, and has trouble remembering appointments. Margaret also mentions that Thomas has had difficulty following conversations and has misplaced items more frequently.

Thomas admits that he is aware of some changes but attributes them to "getting old." He denies any significant mood changes, vision or hearing loss, or recent illnesses. He does mention occasionally feeling "foggy" in the mornings but states that this clears as the day progresses.

Examiner Information:

Prompts and Suggested Answers:

1. **History and Symptom Assessment (Ask):**
    - **Prompt:** What further questions would you ask Thomas and Margaret to better understand the memory concerns?
    - **Suggested Answer:** I would ask about the **onset and progression** of memory issues, whether there have been changes in daily functioning or independence (e.g., managing finances, driving), and any associated behavioural changes or personality shifts. Additionally, I would inquire about **sleep quality**, **medication use**, **alcohol intake**, and **any family history of dementia**.
2. **Differential Diagnosis (Assess):**

- **Prompt:** What would be your main differential diagnosis and key differentials to consider?
- **Suggested Answer:** The main differential is **Alzheimer's disease**, given the gradual progression of memory impairment. Other key differentials include **vascular dementia**, **Lewy body dementia**, and **frontotemporal dementia**. Reversible causes to rule out include **depression (pseudodementia)**, **hypothyroidism**, **vitamin B12 deficiency**, and **medication side effects**.

3. **Initial Investigations (Advise):**
   - **Prompt:** What initial investigations would you request to assess Thomas's cognitive decline?
   - **Suggested Answer:** I would recommend:
     - **Basic blood tests**, including **FBE**, **UEC**, **LFT**, **TSH, Fe Studies**, and **Vitamin B12 + Folate** levels.
     - **Cognitive screening** using tools such as the **Mini-Mental State Examination (MMSE), GP-COG** or **Montreal Cognitive Assessment (MOCA)**.
     - **Imaging**, such as a **non-contrast CT scan** of the brain, to rule out structural abnormalities or signs of cerebrovascular disease.
4. **Management and Next Steps (Assist):**
   - **Prompt:** How would you approach management if the initial workup suggests early-stage dementia?
   - **Suggested Answer:** I would discuss a **multidisciplinary approach**, including referral to a **geriatrician** or **neurologist** for further evaluation. Non-pharmacological support includes involving **occupational therapy** and **cognitive stimulation programs**. Pharmacological treatment with **cholinesterase inhibitors** (e.g., donepezil) may be considered. I would also provide education to Margaret on managing and adapting to Thomas's needs, ensuring access to support services.
5. **Addressing Reversible Causes and Prevention (Arrange):**
   - **Prompt:** What would you do if initial investigations revealed a reversible cause or a modifiable risk factor for cognitive decline?
   - **Suggested Answer:** If a **reversible cause** like **vitamin B12 deficiency** or **hypothyroidism** is identified, I would treat it accordingly and monitor for cognitive improvement. For **modifiable risk factors**, such as high blood

pressure or poor sleep hygiene, I would implement management strategies to address them. I would emphasize lifestyle modifications, including a **balanced diet**, **regular physical activity**, **social engagement**, and **cognitive exercises**, as preventive measures to slow further decline.

Examination Checklist:

- **Clinical Knowledge and Skills:**
    - Demonstrates a thorough understanding of the differential diagnosis for cognitive decline.
    - Identifies key reversible and non-reversible causes and outlines appropriate investigations.
    - Describes management approaches that include both non-pharmacological and pharmacological options.
- **Patient Communication:**
    - Communicates empathetically with the patient and spouse, exploring the concerns in detail.
    - Provides clear and supportive explanations regarding the importance of investigations and the management plan.
    - Educates the caregiver on available resources and strategies for supporting the patient.
- **Evidence-Based Practice:**
    - Recommends evidence-based investigations and treatment options for cognitive decline.
    - Applies current guidelines for the workup and management of dementia.
    - Advises on preventive health strategies and addresses modifiable risk factors effectively.

This case discussion assesses the candidate's ability to evaluate cognitive decline in an elderly patient, focusing on history-taking, differential diagnosis, initial investigations, and patient-centred management while considering legal and ethical aspects of care.