

Clinical challenge

Questions for this month's clinical challenge are based on theme articles in this issue. The style and scope of questions is in keeping with the MCQ of the College Fellowship exam. The quiz is endorsed by the RACGP Quality Assurance and Continuing Professional Development Program and has been allocated 4 CPD points per issue. Answers to this clinical challenge will be published next month.

Dr Steve Trumble

SINGLE COMPLETION ITEMS

DIRECTIONS

Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the most appropriate statement as your answer.

Case 1 – Oh Daijinee

Oh Daijinee is a 20 year old university student who is working in the local carpet warehouse during semester break. He presents to your practice for the first time requesting a medical examination for his forklift driver's licence. On questioning, he reveals that he has had several 'turns' in the past. Further questioning reveals that he experienced a variety of symptoms during his adolescence, including occasional sensitivity to light, early morning limb jerks, and teachers punishing him for dozing during classes.

Question 1

Oh's previous symptoms may well indicate a history of:

- A. partial epilepsy
- B. generalised epilepsy
- C. temporal lobe epilepsy
- D. Lennox Gastaut syndrome
- E. Sarner Faye Recung syndrome.

Thoroughly disgruntled at your refusal to sign his licence form, Oh storms out and goes on an all night nightclub rampage, where he consumes dangerously large amounts of alcohol and amphetamines. He staggers into your waiting room the next morning with some friends and has a tonic clonic seizure on the floor.

Question 2

Immediate emergency management may include:

- A. intranasal diazepam
- B. intramuscular diazepam
- C. intravenous diazepam
- D. paraldehyde
- E. intravenous valproate.

Oh's seizure abates and he is drowsy and confused. His blood glucose is 4.3 mmol/L.

Question 3

In diagnosing the cause of his seizure disorder, the most useful special investigation is likely to be:

- A. early electroencephalogram (EEG)
- B. EEG once any acute activity has settled
- C. CT scan
- D. MRI scan
- E. urinary drug screen.

Oh Daijinee was subsequently found to have generalised epilepsy with tonic clonic seizures, which continued to recur even when he was not sleep deprived or misusing drugs. In consultation with yourself and a neurologist, he agrees to commence antiepileptic therapy.

Question 4

The drug of choice for Oh is:

- A. carbamazepine
- B. lamotrigine
- C. clonazepam
- D. valproate
- E. phenytoin.

Case 2 - Greta Droman

Fourteen year old Greta is brought to your surgery by her teacher. She collapsed while part of a guard of honour for the Prime Minister at her school. She was then propped against a wall and was seen to be extremely pale with some involuntary movements of her limbs.

Question 1

Which of the following observations is most likely to indicate Greta had an epileptic seizure?

- A. bitten tongue
- B. urinary incontinence
- C. facial pallor
- D. jerky limb movements
- E. emotional distress.

Further questioning reveals that Greta and the other girls stood for 20 minutes in the sun before the Prime Minister's arrival. They were very excited about meeting him and Greta seemed overwhelmed when he shook her hand. After her collapse, Greta remained unconscious while propped up but quickly regained colour and consciousness once she was placed in the coma position.

Question 2

On a probability basis, the most likely cause of Greta's episode is:

- A. juvenile myoclonic epilepsy
- B. complex partial seizure
- C. supraventricular tachycardia
- D. vasovagal syncope
- E. drug abuse.

Question 3

Using Murtagh's Diagnostic Strategy Model, which of these 'masquerades' is least likely to cause fits, faints or funny turns?

- A. depression
- B. diabetes
- C. drugs
- D. anaemia
- E. thyroid disorder.

Question 4

In the investigation of Greta's collapse, which of the following is an appropriate initial investigation?

- A. electrocardiogram
- B. Holter monitor
- C. electroencephalogram
- D. urinary drug screen
- E. none of the above.

Case 3 - Hester Charlton

Hester has lived alone for 10 years since the death of her husband. Now 78 years of age, she has been steadily becoming more frail. Her daughter, Paula, contacts you having found her mum confused and tottering unsteadily around the house.

Question 1

Possible causes of Hester's unsteadiness include all of the following except:

- A. transient ischaemic attacks
- B. aortic stenosis
- C. epilepsy
- D. adverse drug reaction
- E. none of the above.

Question 2

Drugs that can cause this clinical picture include all except:

- A. antihypertensives
- B. benzodiazepines
- C. tricyclic antidepressants
- D. alcohol
- E. none of the above.

Question 3

Paula, a nurse, reports that her mother's pulse rate is 49 per minute and regular. Possible causes for this bradycardia include all except:

- A. iron deficiency anaemia
- B. timolol eye drops
- C. vasovagal effect
- D. digitalis toxicity
- E. acute myocardial infarction.

Question 4

Having taken a history and thoroughly examined Hester, which initial investigations might be most useful?

- A. ECG
- B. ECG and FBE
- C. ECG, FBE and blood glucose
- D. ECG, FBE, blood glucose and MRI brain scan
- E. ECG, FBE, blood glucose, MRI brain scan and EEG.

Case 4 - Robert Neville

Now aged 42 years, Robert Neville has become somewhat lonely. Previously a successful scientist, he is unmarried and has recently become sad, withdrawn and anxious, refusing visitors to his home. He has come to see you reluctantly, following an episode of collapse where he fell into an ornamental fountain. He presents as unkempt and clearly anxious.

Question 1

Using Murtagh's Diagnostic Strategy Model, what is the probability diagnosis?

- A. cardiac arrhythmia
- B. tonic clonic seizures
- C. diabetes
- D. depression
- E. heart valve stenosis.

On further questioning, Robert expresses grave fears that he may have a brain tumour. A work colleague recently died of astrocytoma. He has no other symptoms or signs of a space occupying lesion, but states that he won't be able to rest until he knows it is 'all clear'.

Question 2

If you were to order an imaging investigation, which is most appropriate:

- A. plain X-ray of pituitary fossa
- B. CT scan of brain
- C. plain skull X-ray
- D. MRI of the brain
- E. helical CT scan of the brain.

Question 3

Robert depends on his car for transport around the city. It is most appropriate to:

- A. advise him to avoid driving until the cause of his collapse is determined
- B. advise him not to drive for six months
- C. advise him to surrender his licence to the relevant authority
- D. contact the road licensing authority and report his case
- E. notify the police of the risk he poses.

Question 4

In the investigation of Robert, it is essential to involve:

- A. a cardiologist
- B. a neurologist
- C. a psychiatrist
- D. all of the above
- E. none of the above.