



Questions for this month's clinical challenge are based on 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, and are available immediately following successful completion online at www.gplearning.com.au. Check clinical challenge online for this month's completion date.

Deepa Daniel, Kate Molinari

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

Justine Fasciani

Justine Fasciani, 31 years of age, has stable epilepsy. She is considering pregnancy and is currently on a combination of two anti-epileptic medications.

Question 1

You counsel Justine about pre-pregnancy considerations, in particular her epilepsy and how it might affect a pregnancy. Choose the correct statement:

- taking multiple anti-epileptic medications does not increase the risk of fetal congenital malformation compared with taking one anti-epileptic medication
- before and in early pregnancy, women with epilepsy require 500 µg/day of folic acid
- there is good evidence of advantage in changing anti-epileptic medications, even in pregnancy established for several weeks
- there is a 2–3 fold increase in the incidence of fetal congenital malformations in women treated with anti-epileptic drugs
- valproic acid is considered one of the safer anti-epileptic drugs in terms of congenital malformation risk.

Question 2

Justine falls pregnant 5 months later and comes for antenatal care. Justine works in childcare, so you explain some of the symptoms of infections she should be watching out for. Which of the following TORCH infections is LEAST relevant in early pregnancy?

- Cytomegalovirus
- Rubella
- Herpes simplex virus
- Toxoplasmosis
- Listeria monocytogenes*.

Question 3

Justine presents at 6 weeks gestation with painless vaginal bleeding. You consider the possibilities of threatened miscarriage and ectopic pregnancy. Choose the correct statement:

- in vitro fertilisation is not a risk factor for ectopic pregnancy
- 50% of all pregnancies with vaginal bleeding and fetal heart activity on ultrasound at 7–11 weeks gestation will miscarry
- threatened miscarriage is suggested by uterine bleeding plus an open cervix, with ultrasound showing an intrauterine pregnancy plus detectable fetal heart
- there is good evidence to support rhesus-D immunoglobulin use in threatened miscarriage before 12 weeks gestation
- 20–40% of pregnant women will have first trimester vaginal bleeding.

Question 4

You organise a transvaginal ultrasound (TVUS) and human chorionic gonadotropin (HCG) levels to assess the cause of Justine's vaginal bleeding. Regarding HCG levels in early pregnancy, which is INCORRECT:

- on serial HCG readings, a slow-rise or plateau of HCG levels is suggestive of miscarriage or ectopic pregnancy

- on serial HCG readings, fluctuating HCG levels are highly suggestive of miscarriage
- an intrauterine sac is usually visible on TVUS when the HCG level is >1500 IU/L
- a fetal heart beat is usually evident on TVUS when the HCG level is >10 000 IU/L
- normal HCG or doubling of HCG levels in a 48 hour period does not exclude ectopic pregnancy nor miscarriage.

Case 2

John Dowd

John Dowd, 45 years of age, has a family history of thyroid disease. He presents with 4 month of worsening intermittent light-headedness, and more recently fatigue and weight loss.

Question 5

You assess John further. Choose the correct statements about clinical findings in chronic adrenal insufficiency (CAI):

- postural hypotension is a potential sign of both mineralocorticoid and glucocorticoid deficiency
- postural hypotension is a rare sign of CAI
- psychiatric symptoms or signs due to CAI do not regress with steroid therapy
- hyperpigmentation is seen in primary and secondary hypoadrenalism
- salt cravings are a symptom of cortisol deficiency.

Question 6

John has postural hypotension and mild hyperpigmentation. Which of the following statements is correct about investigating potential chronic Addison disease:

- spot urinary cortisol level is an important investigation following initial blood tests
- bloods may reveal hypernatraemia and hypokalaemia
- an ACTH stimulation/synacthen test should always be performed before starting steroid therapy

- D. fasting hypoglycaemia occurs due to loss of the gluconeogenic effects of cortisol
- E. none of the above statements are true.

Question 7

John's investigations are consistent with a diagnosis of Addison disease. You start steroids, organise further investigations and refer to an endocrinologist. Which of the following is the most common cause of Addison disease in adults in the Western world:

- A. infectious diseases causing adrenal cortical destruction
- B. congenital adrenal hyperplasia
- C. hypothalamo-pituitary-adrenal axis suppression
- D. haemorrhage in the adrenal cortex
- E. autoimmune adrenalitis.

Question 8

John returns 6 months later, on oral hydrocortisone and fludrocortisone. Which of the following examination findings is specifically monitoring for mineralocorticoid over-replacement:

- A. skin pigmentation
- B. peripheral oedema
- C. random blood sugar level
- D. persistent postural blood pressure drop
- E. muscle weakness.

Case 3

Margaret Blair

Margaret Blair, 83 years of age, is an independent, feisty woman whose only medical problems are hypertension and atrial fibrillation, for which she takes perindopril and warfarin. The practice nurse calls you to see her. Margaret tells you her problems began about 40 minutes ago, but that in the last 5 minutes, since arriving, she has improved. She denies any previous similar episodes.

Question 9

Which of the following would be the LEAST suggestive of a transient ischaemic attack (TIA):

- A. drooping left side of mouth
- B. right arm weakness
- C. speech not able to be understood
- D. sudden onset
- E. vertigo.

Question 10

Margaret reports that she came as her right arm was weak. On examination you find Margaret's BP is 130/80 mmHg, right arm power is 4 out of 5 initially, but back to 5/5 power by the end of

assessment. Fifty minutes after symptom onset all symptoms and signs have resolved. You decide that the most likely diagnosis is a TIA. To ascertain her risk of stroke in the next 48 hours you calculate her ABCD² score. What is Margaret's ABCD² score:

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5.

Question 11

Margaret decides she is going home, regardless of any doctor. She agrees to investigations and next day neurological review. Which of the following is NOT a part of the routine investigation of her probable TIA presentation:

- A. carotid duplex ultrasound
- B. electrocardiogram
- C. fasting lipids/HDL
- D. full blood count
- E. liver function test.

Question 12

You see Margaret in a week, after neurology review and investigations. Which of the following is NOT part of Margaret's optimal secondary prevention recommendations:

- A. HMG CoA reductase inhibitor
- B. low glycaemic index diet
- C. limit alcohol consumption to no more than two standard drinks a day
- D. perindopril
- E. warfarin.

Case 4

Cooper, Tameka, Mitchell and Mikayla

You are doing a weekend shift at your local hospital.

Question 13

Cooper Foss (aged 16 months) is brought in by his mother, Kylie. She thinks he ate one of her 5 mg glibenclamide tablets approximately 1 hour ago. Which of the following statements about Cooper is correct?

- A. If Cooper is asymptomatic now, he does not need to be monitored
- B. You should warn Kylie that death is a common outcome when children ingest sulphonylureas
- C. Cooper may experience symptomatic hypoglycaemia

- D. Cooper should be kept nil by mouth during the observation period
- E. You should instigate treatment in Cooper if his blood sugar level falls below 2.5 mmol/L.

Question 14

Shortly after you finish with Cooper another child is brought in. Tameka Smith is 4 years of age and ingested an 8 mg buprenorphine tablet about 30 minutes ago. Which of the following statements is correct for Tameka?

- A. She needs observation for a minimum of 24 hours
- B. This medication is three times more potent than morphine
- C. Effects will not show until 3 hours after ingestion
- D. Clinical effects include drowsiness, respiratory depression and agitation
- E. Death is unfortunately common when children ingest buprenorphine.

Question 15

Later that shift, Mitchell Walsh, 2 years of age and weighing 15 kg, is brought in by his distraught grandmother. She says he got into her medication and ate two 50 mg doxepin tablets. Which of the following is correct in regards to Mitchell?

- A. Mitchell is likely to need admission due to the dose he has ingested
- B. Tricyclic antidepressants can cause cardiotoxicity in toddlers like Mitchell
- C. Mitchell needs to be observed for seizures
- D. Mitchell's electrocardiogram may demonstrate a widening of the QRS interval
- E. All of the above are correct.

Question 16

To your horror and amazement, your last patient is another child with potential toxicity. Mikayla Willis is 5 years of age and intellectually disabled. She ingested an unknown quantity of ointment containing 50% methyl salicylate approximately 1 hour ago. Which of the following statements is correct in regards to Mikayla?

- A. Toxic blood levels will be seen earlier than if Mikayla had ingested aspirin tablets
- B. There are clearcut guidelines about how long Mikayla needs to be observed
- C. Salicylate poisoning causes direct stimulation of the cerebellum
- D. Metabolic effects on Mikayla can include metabolic alkalosis and hypokalaemia
- E. Early onset effects to observe include altered mental status and seizures.

Answers to October clinical challenge

Case 1

Margaret and Ken Walsh

1. Answer D

Sexual dysfunction is not simply a biological reality. Most patients would prefer their doctor to raise the topic of sexual issues. The most common problems are lack of desire and lack of arousal. Changes include decreased muscle bulk.

2. Answer E

All of the statements are correct.

3. Answer B

Men with symptoms of androgen deficiency may benefit from hormone therapy, although there is controversy as to when replacement is indicated.

4. Answer C

Many older people engage in other forms of sexual activity than coitus. Orgasm intensity decreases in older women. Planning sexual activity and ensuring a relaxed state can help some couples. There is likely to be increased refractory period with decreased ejaculatory volume.

Case 2

Mildred Pennington

5. Answer C

Medication changes are often poorly communicated to the treating general practitioner and the patient. Older Australians are significant users of complementary medicines. Adverse drug events are strongly linked to falls, confusion and depression. Hoarding of medications at home is not uncommon. It is very important to get a full history from the previous GP.

6. Answer E

Polypharmacy can be described as 'the use of more medications than are clinically indicated'.

7. Answer D

SAIL stands for: 'Simple, Adverse, Indication and List'. Education of the patient is crucial to ensure they understand the benefit of each

medication. As the number of prescribed medications increases, compliance decreases. It is important to weigh up the time until the treatment is effective relative to life expectancy.

8. Answer B

The patient can elect any accredited community pharmacist. A patient is eligible if they are taking five or more medications. The pharmacist will visit Mildred at home to assess her medications. The item number can be claimed once every 12 months. The DMMR service is not available to nursing home patients.

Case 3

Beverly Wilson

9. Answer A

Beverly's MMSE is suggestive of mild impairment.

10. Answer D

Alzheimer is the most common type of dementia. Vascular dementia may be gradual in onset. Visual hallucinations and parkinsonism are seen in Lewy body dementia. Alzheimer disease is usually insidious.

11. Answer C

It is important to use appropriate diagnostic terms. Management includes both pharmacological and nonpharmacological interventions. Depression is a common comorbidity in people with dementia. Current treatments are 'disease modifying' and do not cure the condition.

12. Answer E

Guidelines are available. It is important to refer patients and their careers in the early stages after diagnosis. Cognitive stimulation appears helpful. It is important to discuss driving ability.

Case 4

Phillip Hansen

13. Answer C

ASSIST has not been validated for use in the older population. Including questions about alcohol intake in general discussions is likely to improve communication. Alcohol is more likely to be misused by older people than illicit drugs.

Levels of alcohol recommended as safe for younger people may be harmful for older people.

14. Answer B

Falls, supraventricular cardiac arrhythmias, and alcoholic liver cirrhosis are the most common reasons for hospitalisation. Alcohol is a leading risk factor for adverse drug reactions. People who develop alcohol problems earlier in life have a higher likelihood of medical comorbidity in old age. Alcohol related falls are more common in older people.

15. Answer E

Brief interventions can motivate those with more severe alcohol problems to seek specialised treatment.

16. Answer D

There is only a small number of screening tools developed for use with older people. A project is currently underway to recalibrate ARPS to Australian standard drinks. As yet, there are no specific tools developed to screen for misuse of illicit drugs in older people. It identifies interactions between alcohol, disease and medications.

correspondence afp@racgp.org.au