ABCDE clinical challenge

Questions for this month's clinical challenge are based on articles in this issue. The clinical challenge is endorsed by the RACGP Quality Improvement and Continuing Professional Development (QI&CPD) program and has been allocated 4 Category 2 points (Activity Id: 1376). Answers to this clinical challenge are available immediately following successful completion online at http://gplearning.racgp.org.au. Clinical challenge quizzes may be completed at any time throughout the 2014–16 triennium; therefore the previous months answers are not published.

Single completion items

CPD

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
Genevieve Arnold

Genevieve is school teacher aged 39 years who presents with a history of weekly to twice weekly headaches over the last 4 months. She describes a bi-temporal, gripping pain that usually comes on later in the day and lasts until she goes to sleep in the evening. At their worst, the headaches are associated with nausea and she has had to leave work early on a few occasions. She has tried taking paracetamol with limited efficacy.

Question 1

Which of the following is the most likely diagnosis on the basis of the above history?

A. Tension-vascular headache
B. Analgesic overuse headache
C. Migraine
D. Tension-type headache
E. Cluster headache

Question 2

Which of the following features on history would suggest the need for further investigation?

A. Photophobia
B. Pain provoked by stooping/bending
C. Teichopsia
D. Pulsating quality
E. Vomiting

After a thorough physical examination that is normal, you are able to reassure Genevieve regarding the cause of her headaches.

Question 3

If early initiation of simple analgesics is ineffective, which of the following would be the next most appropriate treatment option in this case?

A. Oxycodone immediate-release at onset
B. Propranolol at onset
C. Pizotifen daily
D. Verapamil daily
E. Imipramine daily

Question 4

Which of the following is NOT a known side effect of therapy with tricyclic antidepressants?

A. Fatigue
B. Dry mouth
C. Weight gain
D. Excessive salivation
E. Palpitations

Case 2
Alison Martin

Alison Martin, aged 26 years, is a patient of your practice with epilepsy. She has been seizure-free for the past 12 months on topiramate 100 mg twice daily. Alison presents wanting to discuss contraceptive options. You explain to Alison that because of her epilepsy medication, her options for hormonal contraception are restricted.

Question 5

Which of the following methods are you are able to offer her?

A. Depot medroxyprogesterone
B. Intravaginal combined contraceptive (Nuvaring)
C. Low dose combined oral contraceptive pill
D. Levonorgestrel implant (Implanon)
E. Progesterone only contraceptive pill

You see Alison again 18 months later. She and her partner are now considering starting a family. She is concerned about the effects of her antiepileptic medication on the fetus.

Question 6

Regarding epilepsy and pregnancy, which of the following statements is the correct information to give Alison?

A. Pregnancy is not advisable for women with epilepsy.
B. She will need to cease all antiepileptic drugs before conceiving.
C. Folate supplementation prior to conception for women with epilepsy is not recommended.
D. Topiramate is the agent consistently associated with the highest rate of congenital malformations.
E. The aim is to use the lowest effective dose of antiepileptic medication to keep her seizure-free and minimise the risk of congenital malformations.

After 12 months of planning and dose adjustment in conjunction with her neurologist, Alison conceives.

Question 7

Which of the following issues does Alison's treating team NOT need to consider?

A. High risk of increased seizure frequency due to pregnancy
B. Dose adjustment of antiepileptics may be required as pregnancy progresses
C. Increased risk of pre-eclampsia
D. Risk of fetal hypoxia if exposed to prolonged seizures
E. Increased likelihood of low birth weight infant

You see Alison after delivery of a healthy baby girl, Georgia.

Question 8

Which of the following statements would be your advice to minimise risk in the post-partum period?

A. No adjustment should be made to the dose of antiepileptic medication.
B. It is unsafe to breastfeed.
C. Avoid bathing the baby alone where possible.
D. Carry the baby rather than using a pram.
E. Contraception is unnecessary until 6 months post-partum.

Case 3
Denise Foo Li Leen

Denise, a woman of Malaysian descent aged 23 years, presents with a history of two episodes of developing a metallic taste in the mouth, followed by uncontrolled movements of her left arm that lasted for about 40 seconds each time. There was no associated loss of consciousness.

Question 9

Which of the following epilepsy syndromes best fits this history?

A. Generalised tonic/clonic seizures
B. Generalised absence seizures
C. Myoclonic seizures
D. Simple partial (focal) seizures
E. Complex partial (focal) seizures

Following assessment by a neurologist, Denise commences carbamazepine treatment. Two weeks later, she develops a severe, generalised rash.

Question 10

What would be your next step in her management?

A. Prescribe some topical steroid for the rash.
B. Take a biopsy to diagnose the cause of the rash.
C. Stop her medication and seek specialist advice.
D. Order genetic testing for HLA-B*1502 allele.
E. Undertake monitoring of carbamazepine blood levels.

Question 11

Which of the following side effects of antiepileptic drugs can also typically be caused by carbamazepine?

A. Weight gain
B. Hirsutism
C. Hyponatraemia
D. Gum hypertrophy
E. Nephrolithiasis

Question 12

Which of the following would NOT be an indication for therapeutic drug monitoring in this patient?

A. Determining the optimal dose of medication
B. Pregnancy
C. Concerns regarding treatment adherence
D. Renal impairment
E. Commencement of a second antiepileptic drug

Case 4
Joel Wyatt

Joel is an Australian rules football player aged 17 years. His father brought him to your practice after a head injury during a match 2 hours ago. He was struck in the head by another player's knee during a tackle. He experienced immediate loss of consciousness, which lasted for approximately 2 minutes. He now feels tired and has a headache, but his Glasgow Coma Score (GCS) is 15 and he has no focal neurological features.

Question 13

What is the most appropriate next step in managing Joel?

A. Advise his father to monitor him closely at home for the next 4 hours.
B. Prescribe an antiemetic and analgesia and advise him to return if his headache worsens.
C. Arrange for neuropsychological testing.
D. Arrange an urgent CT brain scan.
E. Obtain video footage of the accident.

Question 14

You make a diagnosis of concussion. Which of the following statements regarding Joel's condition is true?

A. He could be expected to make a faster recovery than an adult player.
B. Early return to sport is likely to improve his long-term outcomes.
C. He is likely to recover uneventfully within 10–14 days.
D. Genetic factors play no role in the development of adverse outcomes from concussion.
E. He has a 25% chance of developing post-concussion syndrome.

Question 15

Which of the following factors is NOT likely to have a negative influence on Joel's recovery?

A. The duration of his loss of consciousness
B. A past history of migraine
C. Another episode of concussion the week before
D. Use of medication for attention-deficit hyperactivity disorder
E. A brief 30-second convulsion during the period of unconsciousness

You review Joel after 2 weeks of rest and you assess that he no longer has any symptoms or signs of concussion.

Question 16

He wants to now return to playing football. Which of the following statements is the best advice to give him?

A. He can go back to usual activities as he no longer has any concerning symptoms.
B. He should wait at least 6 months before return to football.
C. He needs to undertake a graduated return to play.
D. He cannot return to football as he is at risk of developing chronic traumatic encephalopathy.
E. He must have formal neuropsychological testing first.