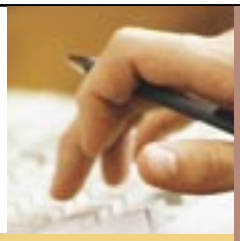
Clinical challenge



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.racgp.org.au/clinicalchallenge. *Jenni Parsons*

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 – Janice Duggan

Janice Duggan, aged 32 years, attends for a Pap test and repeat of her combined oral contraceptive pill. Toward the end of the consultation she asks you whether you think 'the pill' is contributing to the frequent headaches she has been having.

Question 1

In taking a headache history from Janice one of your goals is to elicit any 'red flag' features. Red flag features include all except:

A. focal neurological signs outlasting the headache
B. sudden onset
C. persisting progressive headache
D. headache triggered by cough or straining
E. headache more than 15 days per month.

Question 2

Janice tells you that she has headaches 3–4 times a month. She experiences deep, constant, nonthrobbing pain and tightness in the occipital and frontal regions, more on the left side, that tends to last all day. She has no associated vomiting or aura. Which conditions are highest on your list of diagnostic possibilities at this stage:

A. migraine and cluster headache
B. tension headache and cervicogenic headache (CGH)
C. mass lesion and tension headache
D. migraine and tension headache
E. CGH and chronic paroxysmal hemicrania.

Question 3

You arrange for Janice to come in for a full assessment of her headaches. Blood pressure, vision and visual fields and optic fundi are normal. A musculoskeletal examination of Janice's neck

A. can provide definitive diagnosis of the structures causing a CGH
B. that reproduces Janice's pain is indicative of CGH
C. is not required
D. should be undertaken very gently so as not to cause pain
E. A and B are correct.

Question 4

Janice has restriction of rotation to the left when her cervical spine is fully flexed. She is tender over the C2 and C3 zygapophysial joints (ZJ) on the left and pressure in this area reproduces her occipital headache. Appropriate first line management for her headaches includes:

A. stopping her COCP
B. dihydroergatamine
C. neck exercises and mobilisation
D. radiofrequency neurotomy for her C2/3 ZJ pain
E. myofacial trigger point therapy.

Case 2 – Stephanie Symington

Stephanie Symington, aged 27 years, has typical migraine episodes: throbbing unilateral headaches, aggravated by noise and movement and associated with nausea and vomiting, lasting 6–8 hours.

Question 1

Your full clinical assessment reveals no other significant features or abnormalities and you discuss migraine management. You tell Stephanie

A. it is best to wait until the migraine is established before commencing treatment
B. prophylactic measures are only used if she has >15 per month
C. triptan medications are best used in the aura phase
D. migraine is by definition severe, so mild attacks are not migraine
E. treatment is based on a stepped approach depending on severity.

Question 2

You discuss appropriate medication for her acute attacks. You tell Stephanie

A. nonmedical measures are helpful for mild episodes
B. to use an antiemetic only after trying a simple analgesic first
C. naproxen is a disease specific medication for moderate attacks
D. ergotamine is only useful for very mild attacks
E. triptan medication can be used if ergotamine fails.

Question 3

Stephanie would like to know about complementary and alternative medicines that could be used in her management. You tell her:

A. diet modification has a role to play in migraine management
B. biofeedback techniques have been studied for migraine, but found to be ineffective
C. riboflavin may reduce migraine but has a high side effect profile
D. there is strong evidence for feverfew
E. intravenous magnesium was shown to be helpful in aborting migraine attacks in a large double blind RCT.

Question 4

A few weeks later Stephanie attends with a severe migraine. She has had a headache for 6 hours and been vomiting all day and simple analgesics and NSAIDs have been ineffective. In the outpatient setting appropriate treatment of severe migraine includes all except:

A. subcutaneous sumatriptan
B. parenteral dihydroergotmine (DHE) and metoclopramide
C. parenteral pethidine and prochlorperazine
D. parenteral chlorpromazine
E. intravenous fluids.

Case 3 – Stephanie Symington continued

Stephanie returns 6 months later. She is fed up with her recurrent migraines. She is having 3 or 4 migraines per month and they last for 12–18 hours. She has salbutamol and fluticasone puffers for asthma but is on no other regular medication.

Question 1

You ask Stephanie about her analgesic use. The following all indicate analgesic overuse except:

A. simple analgesics >5 days per week
B. combination analgesics >2 tablets per day for >2 days per week
C. opiates >1 tablet per day for >2 days per week
D. ergotamine tartrate >1 mg orally for >2 days per week
E. triptans >1 tablet per day for >5 days per week.

Question 2

Stephanie takes analgesics one day per week on average. She is concerned about missing work, although frequently she will have a migraine on weekends after a busy week at work. You discuss migraine prevention and tell Stephanie

A. with good management her migraine can be cured
B. as rest days are a trigger she should work more
C. diet modification has no role in migraine treatment
D. stress management and relaxation techniques are effective
E. unless she avoids all identified triggers her migraines will continue.

Question 3

You discuss the commonly used, proven pharmacological agents used to prevent migraine with Stephanie. Choose the correct statement.

A. propranolol or metoprolol would be the ideal first choice for Stephanie
B. amitryptiline is widely regarded as more effective than beta blockers
C. methysergide is ineffective
D. SSRIs have proven efficacy
E. there is little evidence for the use of verapamil in migraine.

Question 4

Stephanie has read about treatments on the internet and asks about the use of antiepileptic and other agents she has heard about.

A. botulinum toxin has conclusive evidence for efficacy but is not available on the PBS
B. valproate is ineffective for migraine prevention
C. topiramate has been shown to be effective in a RCT
D. topiramate is available on the PBS
E. candesartan is an antiepileptic medication used for migraine.

Case 4 – Betty Barker

Betty Barker, aged 68 years, had an episode of shingles affecting the left side of her face late last year. She presents with a 2 week history of pain in her left ear, pain on chewing and left sided headaches.

Question 1

On examination Betty has normal ear examination. She has some clicking in both temperomandibular joints (TMJ) and hyperaesthesia over the temporal region on the left. The most important diagnosis to consider is:

A. TMJ dysfunction
B. postherpetic neuralgia
C. trigeminal neuralgia
D. temporal arteritis
E. migraine.

Question 2

Because Betty has clicking of her TMJ you consider the diagnosis of TMJ dysfunction. She has no tenderness over the joint and has a normal range of movement. TMJ dysfunction:

A. is a very rare cause of ear and facial pain
B. causes pain on mandibular movements whereas temporal arteritis does not
C. is associated with jaw locking or limited opening
D. B and C are correct
E. all of the above.

Question 3

Betty has an ESR of 70. Of the following options, which would you do next:

A. prescribe prednisolone
B. arrange a superficial temporal artery biopsy
C. arrange an urgent ophthalmologist appointment
D. prescribe Tegretol
E. prescribe a combination analgesic.

Question 4

Betty is diagnosed with temporal arteritis and responds well to treatment. Temporal arteritis:

A. is less common in those aged over 50 years than in younger patients
B. is associated with blindness
C. does not cause fever
D. is a vasculitis of small arteries and arterioles
E. all of the above.

ANSWERS TO JULY CLINICAL CHALLENGE

Case 1 – Gemma Stansfield

1. Answer C

Many chronic disorders have been associated with panic disorder, as have genetic and familial factors. Appendicitis is an acute disorder that, while causing anxiety at the time, does not have the chronic nature associated with panic disorder.

2. Answer B

People with anxiety sensitivity tend to be hypervigilant of their bodily functions (such as heart beat, respirations) and can get trapped in a positive feedback loop whereby perceived problems with these functions generate more anxiety. Their erroneous belief is that they are heading for a medical emergency. While physical causes are important to exclude, it's psychological issues that are most likely to need resolving before she can pursue her career.

3. Answer E

Even in the 'real world', multi-element, CBT based treatment protocols are considered to be more effective than medication for panic disorder, even when depression coexits. Medications, either alone or combined with CBT, do not tend to provide long term solutions. The beneficial effects of CBT for panic disorder can be seen for at least 2 years.

4. Answer E

The use of medication is not indicated in this case. Stat doses to aid performance in particular are hazardous. Replacing unhelpful thoughts with more realistic ones through a process of cognitive restructuring may provide Gemma with a simple solution.

Case 2 – Sai-Kit Yung

1. Answer E

There are multiple causes of shortness of breath and cough. Cardiac failure, pulmonary embolism, asthma and COPD are all reasonable possibilities in an older man who has just travelled by air.

2. Answer B

Spirometry – particularly the FEV1/VC ratio – is the most sensitive and specific test for airflow obstruction in COPD.

3. Answer A

No other risk factor is as strongly or as frequently associated with shortness of breath and cough as smoking.

4. Answer D

Long acting beta agonists have been shown to control COPD symptoms, improve exercise capacity and quality of life, while also reducing exacerbations.

Case 3 – Levi Tinker

1. Answer C

Jugular venous pressure will be elevated if the embolus is of sufficient size to challenge the right ventricle's capacity to respond to increased afterload.

2. Answer A

The classic ECG tracing that has been linked to pulmonary embolism shows an S wave in lead I, and Q wave and T inversion in lead III (S1Q3T3).

3. Answer C

The standard duration of warfarin anticoagulation for a first episode of pulmonary embolism without an identifiable reversible risk factor is 6 months.

4. Answer E

The D-dimer has most diagnostic benefit if it is negative. It has a high rate of false positives due to its poor specificity. A negative D-dimer, however, precludes pulmonary embolism.

Case 4 – Lucinda Syson

1. Answer E

As soon as the diagnosis of acute asthma is made – or even suspected – nebulised beta 2 agonists delivered via oxygen are indicated.

2. Answer A

Objective assessment of the severity of asthma can be difficult. Wheeze may be absent, the pulse paradox can disappear as respiratory muscles fatigue, and bradycardia can herald imminent arrest. The pulse oximeter gives a reliable estimate of oxygen saturation and is a useful piece of practice hardware.

3. Answer C

A properly used spacer and metered dose inhaler can be very effective in delivering an adequate dose of beta 2 agonist to a child with acute asthma. Life threatening asthma requires continuous salbutamol nebulised by oxygen.

4. Answer E

This issue of AFP has been themed to demonstrate the wide range of conditions that can present with shortness of breath or wheeze. Foreign bodies, allergic reactions, congestive cardiac failure, COPD, pulmonary embolus, and anxiety disorder are just a few of these.