



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. Check clinical challenge online for this month's completion date.

Jennifer Presser

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 – Joseph Fadelli

Joseph Fadelli, is 9 years of age and is known to have asthma. He attends your rural practice with his mother. He is currently well, but after a dusty weekend motor-cross riding his mother borrowed a nebuliser from a friend for Joseph. She was pleased with how it helped with his coughing and wheezing and would like a script for some nebulisers.

Question 1

Regarding asthma care in Australia, which of the following is true:

- A. attendances at emergency departments have declined from 1999–2004
- B. asthma prevalence in indigenous populations has not declined
- C. only 50% of asthmatics have a written action plan
- D. 30% of asthmatics take inhaled corticosteroids daily
- E. the majority of those taking inhaled corticosteroids are taking the least potent strengths.

Question 2

In assessing Joseph, which of the following is true:

- A. a validated asthma control tool can be used to assess symptoms
- B. inhaler technique should be reassessed
- C. examination of the chest may not demonstrate wheeze in the nonacute setting
- D. examination of the nasal mucosa can be helpful
- E. all of the above.

Question 3

Regarding spirometry, which of the following is correct:

- A. spirometry is a very useful diagnostic and ongoing measure of lung function in the general practice setting
- B. children can attempt spirometry from the age of 10 years
- C. spirometry in COPD will characteristically be reversible
- D. use of spirometry is increasing in Australian general practice
- E. A and D.

Question 4

Joseph does not have an asthma action plan. Which of the following is NOT recommended in an asthma action plan:

- A. a description of Joseph's maintenance treatment
- B. doubling the inhaled steroid early in exacerbations

- C. commencing oral corticosteroid if inhaled corticosteroids are not effective
- D. when to seek medical review
- E. a description of emergency management.

Case 2 – Paige Greenaway

Paige Greenaway, 46 years of age, attends your urban practice for review. She is well but has a family history of type 2 diabetes and was found to have impaired fasting glucose last year.

Question 5

Regarding type 2 diabetes in Australia, which of the following is correct:

- A. 7.1% of the Australian adult population have type 2 diabetes
- B. 2.5% of general practice encounters are for diabetes
- C. diabetes was an underlying or associated cause of 18% of deaths in 2005
- D. A and B
- E. A and C.

Question 6

Paige's fasting blood sugar level is 7.2 mmol/L, which of the following is most correct:

- A. she has impaired fasting glucose
- B. you need to perform an oral glucose tolerance test
- C. Paige has diabetes
- D. a repeat fasting blood sugar is needed on another day to confirm a diagnosis of diabetes
- E. a HbA1c level will help confirm the diagnosis of diabetes.

Question 7

If Paige is found to have diabetes, which of the following is correct:

- A. her life expectancy may be up to 15 years less
- B. she is eight times more likely to have a heart attack or stroke
- C. A and B
- D. about 75% of people with diabetes die from cardiovascular disease
- E. diabetes is 10 times more common among indigenous people.

Question 8

When implementing chronic disease management in diabetes care, which of the following is most correct:

- A. giving out printed materials is effective in improving control of diabetes

- B. up to 30% of diabetic patients have not achieved good metabolic control
- C. implementing multidisciplinary team care plans (TCAs) has been shown to improve adherence to guidelines and metabolic control
- D. decision support and information systems have not yet been shown to improve patient outcomes
- E. one-to-one support is generally more effective than group self management support programs.

Case 3 – Bruno Schuster

Bruno Schuster, aged 65 years, attends your outer urban practice for the first time. He has moved to the area and would like to be referred for a check colonoscopy after a bowel resection for colorectal cancer last year.

Question 9

Cancer care is being increasingly delivered by multidisciplinary teams (MDTs). Which of the following is true:

- A. care is usually delivered via a hub and spoke model
- B. in some cancers survival may improve as a result of MDT involvement
- C. survival in high incidence cancers is most affected by MDTs
- D. currently GPs are often involved in cancer care MDTs
- E. care by MDTs is less cost effective.

Question 10

The CanNET program:

- A. contains information about chemotherapy protocols
- B. comprises cancer teams in each state and territory
- C. is developing ways of providing GPs with information about specialist cancer teams
- D. A and B
- E. B and C.

Question 11

During surveillance for Bruno's colorectal cancer, which of the following is most correct:

- A. this is often a period of reduced stress as treatment has been completed
- B. patients are often relieved that they no longer need to visit the oncology team
- C. cancer survivors report a struggle with reclaiming life
- D. the impact of cancer is reduced after prolonged survival
- E. the specialist team is often better placed to provide support to both patients and caregivers.

Question 12

Regarding the future of cancer care in Australia, which of the following is FALSE:

- A. cancer death rates are falling
- B. the incidence of cancer is falling
- C. there are international models of cancer care oriented general practices
- D. there is ongoing research into effective caregiver care
- E. there are opportunities to develop new roles for practice nurses.

Case 4 – Wendy Umala

Wendy Umala, aged 38 years, attends your practice requesting a certificate for some 'time off'. She has been having a hard time at work and describes her boss as a 'Hitler'. For several months she has been anxious and irritable at home with poor sleep and reduced appetite. Recently her mood has been quite low and she is often teary. She is worried about recurrence of depression, which she experienced after the birth of her last child.

Question 13

What proportion of people who experience depression will relapse or have a chronic course:

- A. 77.5%
- B. 57.5%
- C. 37.5%
- D. 17.5%
- E. 7.5%.

Question 14

Risk factors for recurrent depression do NOT include:

- A. childhood experience of loss/trauma
- B. severe depression at diagnosis
- C. age
- D. residual symptoms
- E. longer illness duration.

Question 15

Current treatment guidelines for depression recommend:

- A. at least 6 months of treatment
- B. 3 years of active treatment if there is significant risk of recurrence
- C. at least 1 year of treatment if there is a past history of depression
- D. continuing active treatment for only as long as necessary for the person to stabilise
- E. mild depression should not be treated with SSRIs.

Question 16

When discussing relapse prevention, which of the following is INCORRECT:

- A. research suggests that medication leads to a rapid recovery, but patients do better in the long term with additional psychological therapy
- B. a mindfulness based cognitive therapy approach has been found to reduce relapse in patients with three or more episodes of depression
- C. relapse prevention planning improves medication adherence
- D. relapse is the return of symptoms after a period of remission
- E. 'Keeping the blues away' is an Australian treatment program designed to reduce the severity and relapse of depression.

ANSWERS TO AUGUST CLINICAL CHALLENGE

Case 1 – Keith Needham

1. Answer B

The prevalence of UAP in western countries is approximately 25% when typical reflux symptoms are excluded, and rises to about 40% when they are included.

2. Answer E

Current guidelines recommend referral for endoscopy in patients over 55 years and for those with a family history of gastrointestinal cancer. Alarm symptoms for early endoscopy include signs of gastrointestinal bleeding and anaemia. Noninvasive testing for *H. pylori* followed by eradication (test and treat) may be appropriate in patients without alarm symptoms.

3. Answer D

In many patients with chronic pancreatitis imaging may be normal and lipase levels may be within reference range, or only slightly elevated.

4. Answer C

Diagnostic criteria for functional dyspepsia include one or more of the following: postprandial fullness, early satiety, epigastric pain and burning. Upper GI bloating can be a supportive criteria, but A, B, D and E describe symptoms commonly associated with irritable bowel syndrome.

Case 2 – Tania Azari

5. Answer C

First line investigations in UAP for the majority of patients are upper GI endoscope or upper abdominal ultrasound. For atypical symptoms ultrasound is suggested as the primary investigation as it is noninvasive.

6. Answer B

In acute cholecystitis ultrasound will show a thickened oedematous gallbladder wall. There may be some pericholecystic fluid. In biliary colic ultrasound will show gallstones, but with a normal gallbladder wall and biliary tree.

7. Answer E

This question is a difficult one, and best practice is debated. In patients with atypical pain and abnormal gallbladder function (no filling or emptying) on HIDA scan, there is around a 90% chance of improving with cholecystectomy. However, many surgeons would trial less invasive UGIE and trial of treatment for any peptic disease found before surgery.

8. Answer E

Ongoing investigation should be guided by severity and nature of symptoms. CT scan will potentially reveal a wide range of abdominal pathologies, particularly in solid organs. New CT technology means that dedicated CT small bowel enteroclysis can be helpful.

Case 3 – Gwen Barclay

9. Answer E

Socioeconomic disadvantage is a major determinant of risk of *H. pylori* infection with some indigenous communities having 2–3 fold higher risk of infection. Twenty-five to 30% of the Australian population is infected and prevalence increases with age.

10. Answer C

Tests based on *H. pylori* urease production are negatively affected by drugs which suppress bacterial population, so antibiotics and bismuth should not be used for 4 weeks before a urease breath test of rapid urease test at endoscopy. PPIs should be stopped for at least 1 week before diagnostic testing.

11. Answer D

Taking *H. pylori* eradication regimen drugs with food does not seem to impair eradication results.

12. Answer A

Most people acquire *H. pylori* in childhood. The risk of re-infection is very low in Australia, except in very poor socioeconomic circumstances.

Case 4 – Eric Lee

13. Answer D

The immediate priority in a patient who presents clinically unwell is 'ABC' – assessment of airway, breathing and circulation and provision of resuscitation.

14. Answer A

Nausea and vomiting occur commonly in ACS. Anorexia, nausea and vomiting are among the least useful symptoms in identifying a specific cause of abdominal pain.

15. Answer E

All but A are correct. Somatic (parietal) nerve pathways are anatomically more numerous and better represented within the cerebral nervous system, so parietal pain is better characterised than visceral (autonomic) pain. The mechanism of referred pain is thought to include misinterpretation of the origin of pain impulses by the cerebral cortex at the level of the spinal cord, as both visceral and parietal pain pathways are in close proximity. The embryological origin of visceral precursor cells explains the transmission of visceral pain to remote spinal segments.

16. Answer E

All are correct. Diagnosis of abdominal pain is difficult and diagnosis is often elusive. Detailed history and examination are required with consideration of atypical presentations – which are common.