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. 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 – Sangeetha Naidu

Sangeetha Naidu, aged 37 years, presents for a routine Pap test. She says that she has been feeling really tired over the past few months. She needs to go to bed early, but still wakes feeling tired. She is married, has two children aged 6 and 9 years, and has a new job. Her medical history is unremarkable. Sangeetha wonders if it is her busy lifestyle causing her to feel tired, but would like some blood tests to 'check if everything is alright'.

Question 1

Regarding pathology testing in the tired patient, which of the following is true:

A. GPs investigate about 20% of tired patients
B. there is a low pick up rate of serious disease
C. most testing occurs after a subsequent consultation
D. tiredness accounts for about 5% of pathology testing
E. B and D.

Question 2

Which of the following is true:

A. tiredness has been reported in about 10% of consultations
B. more females than males report tiredness to their GP
C. most patients with tiredness see their GP several times
D. evidence based guidelines should be used when ordering pathology tests to investigate tiredness
E. B and D.

You request the following tests: FBC, EUC, TFT, LFTs, fasting blood glucose and iron studies.

Question 3

Which is the INCORRECT figure for the likelihood of an abnormal test result:

A. 32% of ferritin tests
B. 12% of FBCs
C. 11% of EUCs
D. 10% of LFTs
E. 7% of TFTs.

Question 4

Which is the correct figure for the likelihood that a diagnosis will be the outcome of the test:

A. 7% of EUC tests result in a diagnosis of renal failure
B. 5% of FBCs result in a diagnosis of anaemia
C. 3% of TFTs result in a diagnosis of hypothyroidism
D. 2% of blood glucose tests results in a diagnosis of diabetes mellitus
E. 0.1% of LFTs result in a diagnosis of hepatitis.

Case 2 – Trevor Hackett

Trevor Hackett, aged 53 years, has been having trouble with constipation, and yesterday had 'quite a bit' of bright red blood in the toilet bowel and on the paper after passing a hard stool. It is now painful to pass stools and he can feel a 'bit of a lump down below'. On further questioning Trevor says that things have been 'a bit rough generally', and he has been feeling tired and cranky. After more encouragement he tells you that there are financial difficulties, he has been drinking more lately and he and his wife have been arguing 'a fair bit'.

Question 5

When taking a history, the BATHE procedure can be useful in moving to a discussion of psychosocial problems. Which of the following parts of the BATHE acronym is INCORRECT:

A. Background: what is going on in your life?
B. Affect: how do you feel about that?
C. Trouble: what troubles you the most about this?
D. Help: are you getting any help with this?
E. Empathy: that must be very difficult for you.

Question 6

You suspect that Trevor may have more problems than his rectal bleeding. Which of the following is correct:

A. around 70% of patients complaining of tiredness have a concurrent psychological disorder
B. only about half of tired patients attribute their tiredness to psychological causes
C. the reason for complex or vague presentations can be found by good history taking
D. it can be useful to ask – is there anything unusual (that you might need to tell me about)?
E. all of the above.

On examination of Trevor, you observe an anal fissure with a sentinel tag.

Question 7

In considering your investigations and initial management you recall Murtagh's safe diagnostic strategy. Which of the following steps of the strategy is INCORRECT:

A. what is the probability diagnosis?
B. what serious disorders must not be missed?
C. what conditions are often missed (the pitfalls)?
D. could this patient have one of the masquerades of medical practice (depression, drugs, anaemia, thyroid/endocrine disorder, spinal dysfunction, UTI)?

E. have I considered medicolegal issues such as appropriate recalls and discussion of differential diagnoses and when to re-present?

Question 8

What is the estimated number of patients presenting to general practice with rectal bleeding that have bowel cancer:

A. 1 in 10
B. 1 in 25
C. 1 in 50
D. 1 in 100
E. 1 in 250.

Case 3 – Noleen Viney

Noleen Viney, aged 42 years, presents because her 'fibromyalgia has been getting worse'. She has been seeing another GP who recently left the practice. The diagnosis of fibromyalgia was made by a rheumatologist 4 years ago. Noleen has long standing pains in her anterior ribs and neck, but also has new pains in her right shoulder and left hip. She also says that she is stressed out and having trouble sleeping due to an up-coming court case.

Question 9

When assessing Noleen you are aware that 'red flag' signs for serious disorders must be sought. Which of the following is NOT a red flag to consider in this case:

A. significant weight loss
B. significant lymphadenopathy
C. signs and symptoms of inflammatory arthritis or connective tissue disorders
D. her up-coming court case
E. signs and symptoms of cardio/respiratory disease.

Question 10

Regarding fibromyalgia, which of the following is INCORRECT:

A. diagnosis is made on the basis of clinical criteria
B. symptoms often vary between patients
C. the cause is unknown, but it is thought to be related to peripheral and central nervous system hypo-excitability
D. fatigue, sleep disturbance, anxiety/depression, headaches, cognitive difficulties and paraesthesia are often associated symptoms
E. irritable bowel syndrome, dysmenorrhoea, premenstrual syndrome, restless legs and irritable bladder are common comorbidities.

Question 11

Which of the following is NOT a part of the American College of Rheumatology classification criteria for fibromyalgia:

A. pain must be present for at least 3 months
B. a second clinical disorder must not be present
C. pain must be present on the left and right sides of the body, and must be present both above and below the waist
D. pain must be present on digital palpation in 11 of 18 listed sites
E. digital palpation should be performed at an approximate force of 4 kg.

Question 12

What treatments have evidence for efficacy in fibromyalgia:

A. fluoxetine
B. tailored exercise programs
C. cognitive behavioural therapy
D. Panadeine forte
E. A, B and C.

Case 4 – Bilal Ali

Bilal Ali, aged 64 years, presents with right knee pain. Bilal has a building business and says he has had pain in both knees with activity for many years. He injured the right knee in a horse riding accident as a young man, but there was no recent knee trauma. You notice that Bilal's right knee is stiff and painful as he gets up from his chair in the waiting room. On examination he has significant crepitus in both knees.

Question 13

Which of the following is NOT a risk factor for the development of osteoarthritis (OA):

A. male gender
B. older age
C. family history
D. past history of joint trauma
E. repetitive joint loading tasks (eg. kneeling, squatting, stair climbing).

Question 14

Which of the following is NOT a clinical feature of OA:

A. joint pain with activity
B. transient stiffness in the morning or after rest
C. significant inflammation of the affected joint
D. reduced range of motion
E. joint crepitus.

Question 15

Features that support a diagnosis other than OA include:

A. peri-articular tenderness
B. acute pain with sudden onset
C. raised inflammatory markers
D. A and B
E. B and C.

Bilal had knee X-rays 2 years ago which show decreased joint space and osteophytes, especially on the right, consistent with OA. He is not keen on taking 'pain killers' but a friend has suggested that he take glucosamine.

Question 16

What do you tell Bilal about the use of glucosamine for OA:

A. the safety of glucosamine has not been well established
B. there is some evidence that 1.5 g/day glucosamine sulfate may reduce symptoms and preserve joint function
C. onset of action of glucosamine may take 4–6 weeks
D. B and C
E. all of the above.

ANSWERS TO OCTOBER CLINICAL CHALLENGE

Case 1 – Joe Cavenagh

1. Answer A

Animals are the natural habitat for nontyphoidal Salmonella, especially poultry and eggs. Ingesting raw or undercooked food, or contaminated cooked food, or water may lead to human infection. Less commonly infection may occur after contact with another infected individual.

2. Answer B

Faecal microscopy is recommended for severe or persisting diarrhoea and in those who are immunocompromised or returned from overseas travel. A single specimen is sufficient when investigating for bacterial pathogens. Two specimens collected at different times are of value when investigating for parasitic infections. Only loose motions should be sent.

3. Answer A

The primary aim is to provide adequate rehydration. Antimotility agents are generally advised against. When fever persists beyond 72 hours consideration should be given to further investigation for complications or an alternate cause. The risk of endovascular infection increases with age and is estimated to be 10% in those over 50 years old.

4. Answer C

The clinical symptoms of enteric fever are highly variable and enteric fever should be considered in the differential diagnosis of any febrile returned traveller. Salmonella serotypes causing enteric fever are not endemic to any part of Australia. After a prodrome, a progressive fever often follows, classically rising daily. Abdominal symptoms are common. Small erythematous maculopapular lesions (rose spots) appear in 20% of patients. Untreated disease carries a mortality rate of 10%.

Case 2 – Vivien Wilkes

5. Answer E

Clinical manifestations of Legionella pneumonia include high grade fever, malaise, myalgia, anorexia, headache, cough, dyspnoea, gastrointestinal symptoms and neurological symptoms (particularly confusion). Laboratory abnormalities include renal and liver dysfunction, hyponatraemia, thrombocytopaenia and leukocytosis.

6. Answer D

Legionella does not grow on routine bacterial culture media, which may lead to difficulties in diagnosis. Recently 3.4% of CAP in Australian hospitals was found to be caused by Legionella. Legionella longbeachae infection has been associated with exposure to garden potting mix. Clinical features of Legionella infection are variable and it may produce mild, nonspecific symptoms.

7. Answer A

Person to person transmission is not thought to be a risk in Legionella infection.

8. Answer E

Legionella urinary antigen test is highly sensitive and specific, but will only detect L. pneumophilia serogroup 1. Urine can also be sent for PCR to detect other species. Intravenous azithromycin is recommended as direct therapy in current guidelines. Doxycycline is an option in milder disease. Hospital admission should be considered for those with severe illness or specific risk factors (eg. Sandra's age and smoking).

Case 3 – Pauline Tran

9. Answer B

Influenza B has no subtypes and causes moderate illness. Influenza C causes only mild illness. Influenza A can cause severe illness and has a range of subtypes which can lead to epidemics and pandemics. The incubation period for influenza is 1–7 days, but usually 2–3 days. Generally viral shedding peaks early in the illness, typically within a day of symptoms onset.

10. Answer B

Haemagglutinin (HA) and neuraminidase (NA) are viral surface proteins that are recognised by the body's immune system.

11. Answer D

Most symptoms resolve within 2–7 days, although the cough may persist for longer.

12. Answer C

Tasmanian modelling suggests that an influenza incidence of 35% may require: 120 000 consultations, 2400 hospitalisations and result in 700 deaths over 6–8 weeks of pandemic.

Case 4 – Michael Wentworth

13. Answer E

Recommended practice protocols for an outbreak include: surveillance, triaging, changes to workload, managing patients who are potentially infectious, testing and notification and handling and disposal of infectious waste.

14. Answer D

Recommended practice equipment includes no touch waste receptacles. For the correct fit of P2N95 masks, people will need to be clean shaven.

15. Answer B

Recommendations are to maximise regular season flu vaccine coverage and pneumococcal vaccination coverage.

16. Answer E

Recommendations are that during a pandemic ALL patients should assumed to be potentially infectious. Triaging protocols should also be in place.

AFP CORRESPONDENCE afp@racgp.org.au