CLINICALCHALLENGE

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.

Rachel Lee

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 – Brad Britt

Brad Britt, 39 years of age, is an advertising manager who presents with a wide spread nonpruritic rash and malaise. Brad separated from his partner of 5 years, Angelo, 2 months ago, and has had several casual male sexual partners since.

Question 1

If Brad was diagnosed with syphilis in the past, what test will be most useful in determining if he has active disease:

A. polymerase chain reaction (PCR) testing of Brad's throat swab
B. dark ground microscopy on a swab from Brad's rash
C. a specific serological test such as Treponema pallidum particle aggultination (TPHA)
D. a nontreponemal test such as the rapid plasma regain (RPR) test
E. a biopsy of the rash for culture and histopathology.

Question 2

You confirm active syphilis and Brad has no allergies. What is the preferred treatment:

A. 1.8 g benzathine penicillin IM daily for 10 days
B. 1.8 g benzathine penicillin IM daily stat dose
C. 1.8 g benzathine penicillin IM weekly for 3 doses
D. doxycycline 100 mg orally bd for 14 days
E. doxycycline 100 mg orally bd for 28 days.

Question 3

Which of the following indicates Brad has had an adequate response to treatment:

A. a fourfold drop in his RPR titre at 6 months
B. a fourfold drop in his RPR titre at 1 month
C. a fourfold drop in his TPHA titre at 6 months
D. a fourfold drop in his TPHA titre at 3 months
E. clinical resolution of the rash and malaise.

Question 4

You encourage Brad to contact his sexual partners. Brad's sexual contacts from the last 90 days:

A. only require treatment if they had contact with Brad when he had his primary chancre
B. only require treatment if their serology is positive
C. only require treatment if they are symptomatic
D. should be offered treatment without waiting for their test results
E. none of the above is correct.

Case 2 – Kylie Spiteri

Kylie Spiteri, 30 years of age, is a journalist. She is 18 weeks pregnant with her first child. She presents complaining of a malodourous white discharge. Her partner Sandra is asymptomatic.

Question 5

You examine Kylie and take swabs. Which of the following is NOT one of the Amsel diagnostic criteria for bacterial vaginosis (BV):

A. increased mobiluncus species
B. a homogenous, white adherent vaginal discharge
C. vaginal pH of over 4.5
D. clue cells on microscopy
E. positive amine test.

Question 6

Which of the following organisms is the most specific for BV:

A. *Gardnerella vaginalis*
B. *Lactobacillus acidophilus*
C. *Atopobium vaginae*
D. *Mycoplasma genitalium*
E. *Candida glabrate*.

Question 7

Bacterial vaginosis is associated with complications during pregnancy. Which of the following is NOT associated with BV:

A. chorioamnionitis
B. spontaneous abortion
C. preterm delivery
D. low birth weight
E. instrumental delivery.

Question 8

You discuss the controversies of BV treatment with Kylie. She requests the treatment that has the best chance of protecting her fetus from the complications of BV. This involves:

A. treating Kylie with clindamycin 300 mg orally bd for 7 days
B. treating Kylie with clindamycin 1 g vaginally nocte for 7 days
C. treating Kylie's partner Sandra with metronidazole 400 mg bd for 7 days
D. combination of A and C
E. combination of B and C.

Case 3 – Kumiko Kushimori

Kumiko Kushimori, 21 years of age, is an arts student. She presents today for a general check up in the context of a new relationship.

Question 9

Which of the following would NOT be helpful in creating a sensitive practice environment that is inclusive for people of different sexual orientations:

A. training reception staff to ask about sexual orientation
B. training reception staff to use inclusive language
C. including sexual orientation questions on the intake form
D. displaying a rainbow sign on the front door
E. having lesbian specific patient materials available.

Question 10

After explaining confidentiality and the reason for your questions, which of the following questions would be the best to begin your sexual history in an inclusive manner:

You mentioned you have just started a new relationship...

A. are you using any contraception?
B. are you using condoms?
C. are you homosexual?
D. are you lesbian, bisexual or straight?
E. is this new partner male or female?

Question 11

Kumiko asks you about her sexual health. Which of the following is accurate:

A. HPV does not occur in lesbian women so she does not need a Pap test
B. STIs are very infrequent in lesbian women so she does not need to practise safe sex
C. pelvic inflammatory disease is more common in lesbian women so she requires 6 monthly swab tests
D. HPV does occur in lesbian women so she needs routine Pap tests
E. blood borne viruses are common in lesbian women because of high rates of IV drug use.

Question 12

Which of the following are common methods used by women to reduce their risk of infections when having sex with women:

A. using latex dams for oral sex
B. using condoms on sex toys
C. using latex gloves during digital sex
D. hand washing after sexual contact
E. avoiding oral sex.

Case 4 – Janette Lim

Janette Lim, 24 years of a age, is a legal assistant. She presents requesting emergency contraception for a 'slip up' 4 days ago. She has no allergies or contraindications to hormonal contraception.

Question 13

You discuss emergency contraception with Janette. You explain:

A. she is too late – the levonorgestrel preparations are only effective up until 72 hours after unprotected sex
B. she can take one dose of 750 µg levonorgestrel now followed by a repeat dose in 12 hours, as it may be effective up to 5 days after unprotected sex
C. she can take 1.5 mg of levonorgestrel now as a stat dose as it may be effective up to 5 days after unprotected sex
D. she can take 750 µg of levonorgestrel now as a stat dose as it may be effective up to 5 days after unprotected sex
E. in the future, she can make a priority appointment during your script session as she requires a prescription to access emergency contraception.

Question 14

After discussion, Janette wants to try the COCP. She has a regular partner and is on day 10 of her menstrual cycle. You explain:

A. she should start the COCP on the first day of her next menstrual cycle in the 'red'/inactive section of the pill packet
B. she may start immediately with the 'active' pills but will not be covered for 7 days
C. she may start immediately with the 'active' pills and will be covered immediately
D. she may start immediately with the 'inactive' pills and will be covered immediately
E. she cannot start the COCP until after her next period and a negative urinary pregnancy test.

Question 15

Janette presents 4 months later with breakthrough bleeding. She has not taken any 'inactive' pills. You explain this pattern of breakthrough bleeding:

A. is common and she should have a weeks break from the active pills
B. is common and she should have a month break from the active pills
C. indicates the pill is not a suitable method of contraception for her
D. indicates this is an unsafe way to take the COCP
E. would be prevented by a formulation with extended hormone pills.

Question 16

Janette changed to an ethornogestrel contraceptive implant 1 month ago. She presents with irregular bleeding. Optimal first line management of this bleeding would be:

A. removal of the contraceptive implant
B. adding the COCP for 3 months
C. adding tranexamic acid 1000 mg tds
D. adding an antiprostaglandin in normal therapeutic dose when bleeding occurs
E. adding an antiprostaglandin in normal therapeutic dose strictly for 4–6 weeks.

ANSWERS TO MAY CLINICAL CHALLENGE

Case 1 – Susan Hatsis

1. Answer D
Insomnia is a common presenting problem in general practice but is a symptom rather than a diagnosis. Medical conditions, pain and psychological conditions such as depression and anxiety can all cause insomnia.

2. Answer C
Sleep disorder is very common in depression with rates around 80%. Insomnia increases the risk of depression recurrence, is associated with poorer responses to treatment and higher risk of suicidal behaviour. Depression is the most common psychiatric cause of insomnia.

3. Answer B
The suprachiasmatic nucleus in the hypothalamus is the body's central timekeeper and there is diurnal variation in temperature, alertness, autonomic functions and stress response. There are 'clock genes' and lithium affects the expression of these genes. Depression delays melatonin release thus delaying sleep and wake cycles.

4. Answer E
Exercise is helpful in treating insomnia, but not just before bed time. A cool environment and light snack may help sleep. Day time sleep should be avoided, as should caffeine and alcohol.

Case 2 – Jaxson Fletcher

5. Answer D
Children with night terrors are unrousable during the event, have no memory of the event and typically return to sleep easily. There can be marked autonomic involvement and no subsequent daytime sleepiness. They typically occur during the first third of the night.

6. Answer C
Tiredness, fever, illness and disruption of routine may precipitate night terrors. Investigation is rarely required of this harmless condition and children usually grow out of them. Parents should avoid waking or touching their child unless they are in danger as this may make it worse.

7. Answer B
Epilepsy is rare during REM sleep. It may occur at different times of the night and children may have some memory of the event and may exhibit day time sleepiness.

8. Answer E
Most children do not require investigation. Sleep study or EEG should be considered if the history is suggestive of epilepsy or there are atypical, violent or frequent events.

Case 3 – Mary Audo

9. Answer E
Although a family history is common in primary RLS, it is not a diagnostic criteria.

10. Answer A
Secondary causes of RLS include pregnancy (one-quarter of women during third trimester), iron deficiency, renal failure, diabetes, thyroid disorders, fibromyalgia, peripheral neuropathy and rheumatoid arthritis.

11. Answer C
Initial management should include iron studies with tailored investigation and treatment if ferritin below 50 µg/L. Explanation, mental alerting activities and avoiding exacerbating drugs such as antidepressants, alcohol and caffeine are also important. Referral may be appropriate but usually only for refractive, difficult to manage, severe or unusual cases.

12. Answer D
Dopamine precursors are common choices in intermittent symptoms but cause augmentation in up to 70% of cases and rebound in at least 20%. Gabapentin is useful for painful variants. Dopamine agonists may be limited by side effects – compulsions in nonergot derived and rare but serious (eg. retroperitoneal fibrosis) in ergot derived.

Case 4 – Robert Bligh

13. Answer A
Obstructive sleep apnoea should be considered in loud snoring that disrupts the patient's partner's sleep more then three times per week, in Epworth Sleepiness Scale above 9, in neck circumference >42 cm in men and with Mallampati scores of C or D. Obesity is a risk factor.

14. Answer E
Laboratory polysomnography routinely includes all of the factors listed except for arterial blood gases. It is funded by Medicare and has a test failure rate of <0.01%.

15. Answer D
Obstructive sleep apnoea syndrome refers to a constellation of recurrent apnoeas of more than 10 seconds (or hypoponoeas with oxygen desaturation or arousal from sleep) at least 5 times per hour with associated snoring and day time fatigue. This corresponds to an AHI index of 5 or more. Sleeping respiratory rate and heart rate variability are not part of the diagnostic criteria.

16. Answer A
CPAP machines are lightweight (<2 kg), quiet (<35 dB) and may be used on some airlines. Masks may be nasal, oral, oro-nasal, facial or hood style but may produce pressure sores if poorly fitting.

AFP CORRESPONDENCE afp@racgp.org.au