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.

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 – Sheila Tennant

Sheila Tennant, 72 years of age, presents requesting a tablet for her urine problem. She has 'trouble hanging on' and occasionally wets her pants at the front door while trying to get inside. Her friend Betty told her she was given a tablet by her doctor for a similar problem and it 'changed her life'.

Question 1

You discuss urinary incontinence with Sheila and explain:

A. incontinence occurs when urethral pressure exceeds intravesicular pressure
B. risk factors for stress urinary incontinence (SUI) include pelvic surgery, childbirth and postmenopausal urethral changes
C. increased neural activity at the spinal or cortical level can lead to bladder overactivity and urge urinary incontinence (UUI)
D. the micturition reflex is not under voluntary control
E. continence depends on the bladder's ability to expand under high pressure in the absence of involuntary contractions.

Question 2

Sheila would like to know what she can do to improve her symptoms. Conservative management likely to improve SUI does not include:

A. weight loss
B. fluid restriction
C. treating constipation
D. pelvic floor muscle training
E. cognitive behavioural therapy.

Question 3

Sheila is unfamiliar with pelvic floor muscle training. You tell her that pelvic floor muscle training is a technique that:

A. is readily learned from a detailed patient education sheet
B. should be practised 3–4 times per week
C. involves slow maximal contractions to be sustained for 30 seconds
D. may be improved by the use of weighted vaginal cones
E. increases cure rates of urinary incontinence by 23 times.

Question 4

Sheila is still keen on a tablet to improve her symptoms. Regarding pharmacotherapy:

A. there are no pharmacological treatments that can assist with SUI
B. new uroselective anticholinergic medications such as tolterodine, solifenacin and darefenacin are available on the PBS
C. there is level 1 evidence that oestrogen therapy improves UUI
D. anticholinergic medications improve quality of life in UUI
E. anticholinergic medications reduce involuntary detrusor contractions mediated by serotonin.

Case 2 – Xenia Dimitrios

Xenia Dimitrios, 56 years of age, presents embarrassed, that after starting a new personal fitness program at the gym, she is having problems with involuntary leakage of urine during physical activity.

Question 1

Which of the following features of Xenia's history would make you suspicious of other pathology, rather than simple urinary incontinence:

A. a sensation of incomplete bladder emptying
B. suprapubic pain
C. visual disturbances
D. recurrent urinary tract infections
E. all of the above.

Question 2

Which of the following medications could be contributing to Xenia's urinary incontinence:

A. indapamide
B. sumatriptan
C. alendronate
D. lithium
E. A and D.

Question 3

You ask Xenia to complete a bladder diary and return for a follow up appointment. Which of the following values is likely to be abnormal?

A. 24 hour total urine output of 3500 mL
B. largest volume voided 500 mL
C. one episode of nocturia
D. 4 hourly day time voiding
E. nocturnal urine volume of 15% of the total volume.

Question 4

Xenia would like further investigation of her symptoms. Which of the following is NOT an indication for referring Xenia for urodynamic studies:

A. previous gynaecological surgery
B. mixed stress and urge symptoms
C. ultrasound postvoid residual volume of 40 mL

D. documentation of severe incontinence
E. comorbid neurological disorder.

Case 3 – Xenia Dimitrios continued

After a thorough trial of pelvic floor physiotherapy Xenia is still experiencing distressing symptoms of SUI. She wants to discuss other treatment options.

Question 1

You explain to Xenia surgical treatment options for SUI:

A. midurethral synthetic sling surgery is the most common operation performed in Australia
B. midurethral slings are more effective than pubovaginal slings
C. Birch colposuspension is the gold standard management
D. bio-injectable agents are trialled before operative management
E. an artificial urinary sphincter has not yet been developed.

Question 2

Xenia wants to know about the risks of sling surgery. Which of the following statements is INCORRECT:

A. over time sling material may erode into adjacent tissues such as the vagina
B. surgery is primarily designed to correct bladder overactivity
C. under-correction may lead to persistent SUI symptoms
D over-correction can result in obstruction and urinary retention
E. bladder overactivity symptoms may worsen after surgery.

Question 3

In trying to decide about referral for surgery, Xenia also wants to know about the success rates of different treatments. You tell her:

A. cure rates with bio-injectable agents are significantly higher than sling techniques
B. midurethral slings are more successful than pubovaginal slings
C. surgery is not considered successful unless a patient becomes completely dry
D. comparing the success of different treatment options is difficult because there is no standard definition of 'cure'
E. 60% of patients experience significant improvement in symptoms after autologous facial sling surgery.

Question 4

Women who have UUI refractory to newer anticholingergic drugs combined with pelvic floor physiotherapy and bladder retraining:

A. should continue pelvic floor physiotherapy as this is most likely to improve their symptoms in the long term
B. can be treated with intrasphincteric injections of botulinum toxin
C. urinary diversion surgery is safe with low revision rates
D. may need to self catheterise due to urinary retention if treated with sacral nerve neuromodulation
E. do not have any open surgical options with improvement rates >60%.

Case 4 – Lena Sanchez

Lena Sanchez, aged 36 years, is chatting to you during a routine Pap test. When you question her, she says that since the birth of her baby 3 months ago, she has problems with continuing involuntary leakage of urine during coughing, sneezing, laughing and jumping.

Question 1

After this history from Lena of probable SUI you:

A. give her a brochure on pelvic floor muscle exercises
B. tell her that her symptoms should improve with a little more time
C. check on Lena's ability to contract her pelvic floor muscles during your examination
D. check her urine for infection
E. C and D.

Question 2

You assess Lena as having simple SUI. She is ambivalent about treatment. You explain that:

A. over 80% of women in a recent Australian study were cured after treatment by a trained pelvic floor physiotherapist
B. many women are unable to perform pelvic floor muscle contractions correctly from written instructions alone
C. biofeedback therapy can help women who have difficulty feeling their pelvic floor muscles contract
D. a stronger pelvic floor can help prolapse, and improve sexual function
E. all of the above.

Question 3

Lena was attending pilates classes and wonders if doing regular pilates would be effective in treating her incontinence. You advise Lena that:

A. overzealous and/or incorrect pelvic floor tightening may worsen pelvic floor pathology
B. she needs to practise pelvic floor muscle contractions 100 times a day, not just at pilates
C. although pilates can involve activation of the pelvic floor, there is no evidence that it improves urinary incontinence
D. A and C
E. ultrasound studies do not show elevating pelvic floor contractions during pilates.

Question 4

The cost of physiotherapy is a concern for Lena. You can reassure her that:

A. 'extras' private health cover will provide a rebate
B. if she does not have private health cover, she qualifies for referral under the Enhanced Primary Care (EPC) program
C. pelvic floor physiotherapists can be accessed in public continence clinics and physiotherapy departments in public hospitals
D. in a recent Australian study, successful treatment usually involved only five consultations with a pelvic floor physiotherapist over 5 months
E. all of the above.

ANSWERS TO JANUARY/FEBRUARY CLINICAL CHALLENGE

Case 1 – Jan Freundfelder

1. Answer C

Small weight losses (5–10%) result in big reductions (35%) in disease risk.

2. Answer B

Energy density refers to the number of nutritional Calories (kcal) per gram or millilitre of food.

3. Answer B

There is some evidence for the efficacy of orlistat in weight loss management. There is no convincing evidence of efficacy for other over-the-counter weight loss products.

4. Answer A

With diet, the recommended exercise prescription is a minimum of 150 minutes per week. Exercise alone is unlikely to be effective for weight loss until around 200–300 minutes per week.

Case 2 – Callum McCarthy

5. Answer C

Approximately 70–80% of smokers are nicotine dependent. There is evidence that identification of smokers and brief advice about smoking cessation increases quitting rates. The size of the effect may be increased by pharmacotherapy (based on assessment of nicotine dependence), active follow up and referral to Quitline. Assessment of stage of change is also important, although people do not necessarily progress in a sequential way through the 'stages of change' model.

6. Answer D

Indicators of nicotine dependence include smoking within 30 minutes of waking, smoking more than 15 cigarettes per day and history of withdrawal symptoms on previous quit attempts. These symptoms can be prevented or reduced by the use of smoking cessation pharmacotherapy. Controlled trials have shown that active acupuncture does not increase quit rates over sham acupuncture. There are no randomised studies of the Allen Carr Easyway Clinic method.

7. Answer E

From currently available evidence, varenicline is the most effective form of smoking cessation pharmacotherapy.

8. Answer D

Follow up has been shown to increase the likelihood of long term abstinence. Timing depends on a number of factors including the need re-prescribe pharmacotherapy. One week and 1 month after the quit date is a suggested schedule.

Case 3 – Robert Talerski

9. Answer D

There is extensive evidence that opportunistic screening and brief intervention for hazardous and harmful drinking is effective in reducing alcohol use. Patients should also be screened if they present with symptoms/signs that could be alcohol related, such as hypertension.

10. Answer C

According to the National Health and Medical Research Council guidelines Robert's drinking behaviour is classed as harmful.

11. Answer C

Patients can meet the DSM-IV criteria for alcohol dependence if they have three of seven features over a 12 month period including: tolerance, withdrawal, drinking more alcohol or for longer than intended, unsuccessful attempts to cut down or control drinking, spending a great deal of time getting or drinking alcohol, neglecting social or work areas because of alcohol and continuing use despite harm.

12. Answer B

Some patients may find AA helpful. However, there is no conclusive evidence for improved outcomes compared to other treatments such as cognitive behavioural therapy (CBT). Other options include the more recent Smart Recovery groups.

Case 4 – Developing a 'physical activity' strategy

13. Answer E

According to a 1999 National Physical Activity Survey by the Australian Institute of Health and Welfare, people aged 30 years and over, the middle aged (45–59 years), women, and people in the obese weight range are most likely to be insufficiently active.

14. Answer E

The National physical activity guidelines for Australians recommend 30 minutes of moderate intensity exercise on at least 5 days per week. This minimum recommended amount provides most of the physical activity benefits for CVD and diabetes prevention.

15. Answer C

It is important to point out to patients that many exercise activities are free, including walking. Also, many councils have no cost and low cost facilities and programs.

16. Answer B

Lifescripts are Lifestyle Prescriptions. The Lifescripts website (www.health.gov.au/lifescripts) also contains resource kits and useful links.

AFP CORRESPONDENCE afp@racgp.org.au