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 – Poppy and Mary O'Rielly

Poppy O'Rielly, 22 years of age, presents complaining of nasal obstruction, rhinorrhoea and tiredness, which she feels is a constant 'cold'. Her symptoms occur continually all year, but improve when she is on holidays. She works as a hairdresser, takes no regular medications and is otherwise well.

Question 1

Which of the following is the most likely diagnosis for Poppy:

A. seasonal allergic rhinitis
B. perennial allergic rhinitis
C. occupational rhinitis
D. infective rhinitis
E. vasomotor rhinitis.

Question 2

Which of the following medications can cause rhinitis symptoms:

A. SSRIs
B. oral contraceptives
C. beta blockers
D. B and C
E. A, B and C.

Two weeks later Poppy's mother Mary presents with a runny nose, sneezing, itchy eyes and nose and a tickly throat. She says that she gets symptoms daily for 1–2 weeks at a time, which seems to coincide with plants flowering in the area. She finds her constant runny nose 'drives her nuts' and she can't concentrate at work and has trouble sleeping at home.

Question 3

Which of the following is the most likely diagnosis for Mary:

A. mild intermittent allergic rhinitis
B. moderate to severe intermittent allergic rhinitis
C. mild persistent allergic rhinitis
D. moderate persistent allergic rhinitis
E. severe persistent allergic rhinitis.

Question 4

You prescribe Mary an intranasal steroid. Which of the following directions is not correct for administration of intranasal sprays:

A. look down at the floor
B. use the opposite hand to nostril
C. put the nozzle just inside the nose
D. aim to the side
E. sniff hard.

Case 2 – Dennis Steer

Dennis Steer, 18 years of age, presents with his mother for repeat prescription of his EpiPen® and review of his anaphylaxis management plan. As a young child he was found to be allergic to peanuts, with exposure causing facial swelling, throat tightness, rash, and vomiting within 20 minutes.

Question 5

In adult food allergy, which of the following foods is LEAST likely to cause fatal anaphylaxis:

A. wheat
B. milk
C. fish
D. shellfish
E. peanuts.

Question 6

Which of the following symptoms is LEAST likely to be attributable to an IgE mediated food allergy:

A. lip swelling
B. diarrhoea
C. rash
D. fainting
E. respiratory distress.

Question 7

In adult food allergy, which of the following statements is most correct:

A. 10% is the estimated prevalence of adult food allergy
B. 40% of fatalities due to food anaphylaxis had experienced a prior reaction to that food
C. 60% of people complain of food related symptoms
D. 60% of all fatal anaphylaxis is due to food allergy
E. 70% of fatal food anaphylactic reactions are not treated with adrenaline in a timely manner.

Question 8

Dennis has heard about 'touch testing' of foods when he is away from home. You explain that touch testing is:

A. touching a tiny portion of food to the lip before eating
B. touching a tiny portion of food to the inner arm before eating
C. touching food to the back for patch testing of food allergy
D. touching food with the hands before eating
E. getting a friend to touch test food first.

Case 3 – Anna Ngaliwu

Anna Ngaliwu, 6 years of age, has severe cerebral palsy. In her most recent discharge summary you read that an allergy to flucloxacillin is suspected.

Question 9

Allergy to which of the following substances can be detected with skin prick testing:

A. foods
B. aeroallergens
C. antibiotics
D. latex
E. all of the above.

Question 10

Regarding skin prick testing, which of the following statements is correct:

A. the wheal and flare reaction peaks at 72 hours
B. a positive skin prick test is taken as 10 mm greater than the negative control
C. the overall positive predictive accuracy is >50% with suspected food allergy
D. there is a negative predictive accuracy of >95% with suspected food allergy
E. it must be delayed until 4–6 months after an anaphylactic reaction.

Question 11

Which of Anna's medications will not interfere with skin prick testing:

A. gabapentin
B. baclofen
C. imipramine
D. ranitidine
E. loratadine.

Question 12

Anna's mother wants to know if you can do a blood test to check for allergy. Which of the following statements about radio-allergosorbent testing (RAST) is most correct:

A. it cannot be ordered by a GP
B. it cannot be performed where there is extensive skin damage
C. it cannot be used in patients with high total IgE levels
D. it cannot be performed following a recent anaphylactic reaction
E. it cannot be performed in patients unable to stop medications.

Case 4 – Karley Scalvensi

Karley Scalvensi, 32 years of age, presents with her son Dylon, aged 2 years. Karely and her husband Ben both have asthma requiring use of preventer medication. Dylon has troublesome atopic dermatitis. Karley has come to see you to confirm her new pregnancy.

Question 13

Karley would like to know if there is anything she can do to minimise the risk of her unborn child developing an asthma or dermatitis. Which of the following actions is supported by evidence in the prevention of allergic disease:

A. not smoking during pregnancy
B. a smoke free environment for children
C. breastfeeding exclusively for 4–6 months
D. using partially hydrolysed formula if formula feeding is needed
E. all of the above.

Question 14

Karley asks if there is a special diet she and the baby should follow. Which of the following statements regarding diet in allergy prevention is correct:

A. maternal elimination diets during pregnancy are only necessary for high risk babies
B. maternal dietary restrictions during lactation are recommended for high risk babies
C. the common allergens, egg, milk and peanuts, can be introduced after 4–6 months
D. soy milk based formulas are recommended for high risk babies
E. there is Level 1 evidence to support addition of probiotics to the maternal and infant diet for allergy prevention.

Question 15

Which of the following infant formulas should be recommended for use if required by an infant at high risk of allergic disease:

A. Nalfare
B. Neocate
C. Pepti-junior
D. Elecare
E. none of the above.

Question 16

Karley asks if there are any special measures she can take at home to reduce allergic flare ups. Which of the following statement about the home environment in allergic prevention is the most correct:

A. aeroallergen avoidance in pregnancy or early childhood is not recommended for allergy prevention
B. house dust mite avoidance during infancy has been shown to reduce asthma at 5 years of age
C. significant reduction in house dust mite levels is not normally achieved using routine measures (vacuuming, mattress covers, removal of carpets)
D. high risk children should not be exposed to pets
E. there is good evidence that early exposure to animals reduces allergic disease.

ANSWERS TO MARCH CLINICAL CHALLENGE

Case 1 – Sheila Tennant

1. Answer B
Risk factors for stress urinary incontinence (SUI) include: childbirth, postmenopausal involution of the urethra, or as a complication of pelvic surgery or trauma.

2. Answer E
Routine management of SUI does not involve cognitive behavioural therapy.

3. Answer B
In pelvic floor muscle training three sets of exercise repetitions should be performed 3–4 times per week.

4. Answer D
A Cochrane review has shown that anticholinergic medications improve quality of life in urge urinary incontinence (UUI).

Case 2 – Xenia Dimitrios

5. Answer E
In patients presenting with urinary incontinence: haematuria, pain, acute onset of symptoms, obstructive symptoms (eg. a sensation of incomplete bladder emptying), recurrent urinary tract infections and neurological symptoms (eg. visual disturbances), are all features which suggest other significant pathology – such as urinary tract infections, bladder cancers and calculi or neurogenic bladder.

6. Answer E
Reversible causes of urinary incontinence include agents that may cause excess fluid intake such as diuretics (eg. indapamide) and lithium. Urinary incontinence is not listed as a side effect of sumatriptan or alendronate.

7. Answer A
In people with a history of incontinence, a desirable total urine output in 24 hours is 1500–2000 mL.

8. Answer C
Ultrasound measurements of postvoid residual volumes less than 50 mL are regarded as normal. Indications for urodynamic studies include: definition of type of incontinence and documentation of severity, consideration of invasive or surgical treatment, following failed conservative management, mixed urinary and urge incontinence symptoms, a history of past urological or gynaecological surgery, failed incontinence surgery, comorbid neurological disorder, and where diagnosis is unclear.

Case 3 – Xenia Dimitiros continued

9. Answer A
Midurethral synthetic sling surgery is now the most common operation performed for the treatment of SUI.

10. Answer B
The aim of SUI surgery is to increase support of the urethra. It is not primarily designed to correct bladder overactivity symptoms.

11. Answer D
There is no standardised definition of 'cure' in urinary incontinence, so comparison of the effectiveness of different treatments can be difficult. Both subjective and objective measures, such as patient satisfaction and frequency of ongoing incontinence, are important.

12. Answer C
In the treatment of refractory urge incontinence, urinary diversion (eg. ileal conduit) has been shown to be reliable and safe with low surgical revision rates.

Case 4 – Lena Sanchez

13. Answer E
Following a history of urinary incontinence, urinary tract infection should be excluded and clinical examination should be performed.

14. Answer E
In a recent Australian observational study of physiotherapy for women with SUI, 84% of women were objectively cured and satisfied with the outcome of their treatment. Some women need intensive coaching to be able to contract their pelvic floor muscles effectively. After receiving information of pelvic floor contraction from a written source only, some women are seen to bear down rather than perform an elevating contraction. Biofeedback can assist women with poor awareness of their pelvic floor muscles to achieve effective contractions. Improved pelvic floor strength will help concomitant prolapse and improve sexual function.

15. Answer D
Although it does involve activation of the pelvic floor muscles, there is no evidence that pilates improves urinary incontinence. Incorrect technique for pelvic floor muscle exercises could worsen symptoms.

16. Answer E
Pelvic floor physiotherapy is available in some public hospitals. Rebates are available under 'extras' private health cover, and referrals can also be made under the Enhanced Primary Care program. A recent Australian study showed successful treatment after an average of five consultations with a pelvic floor physiotherapist.

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