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.

Jenni Parsons

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 – Sarah Ng

Sarah, aged 19 years, attends for a repeat prescription of the combined oral contraceptive pill (COCP). Her first Pap smear last year was normal and she has no problems with the COCP. She has been in her current relationship for about 6 months. She and her boyfriend do not use condoms.

Question 1

A prompt comes up on your electronic medical record to discuss human papillomavirus (HPV) with Sarah. Choose the correct statement:

A. HPV vaccination is only indicated if the patient is not yet sexually active
B. HPV testing is required before vaccination if the patient is already sexually active
C. HPV vaccination would still be appropriate even if Sarah had had HPV changes on her Pap smear
D. HPV vaccination is of no benefit to males
E. HPV vaccination is a treatment for existing HPV infection.

Question 2

Sarah has not heard about HPV or HPV vaccination so you explain the relationship between HPV and the development of cervical cancer. Choose the correct statement:

A. HPV is present in about 50% of cervical cancers
B. up to 80% of sexually active men and women will be exposed to at least one type of HPV
C. transmission rates following exposure to HPV are about 20%
D. in most women who contract HPV the infection will persist for years
E. persistence of high risk HPV occurs in about half of the women infected.

Question 3

You discuss the quadrivalent HPV vaccine with Sarah. Choose the correct statement:

A. the quadrivalent HPV vaccine protects against all the HPV types associated with cervical cancer
B. HPV types 6, 11, 16, and 18 are all included in the vaccine because they all are high risk types for cervical cancer
C. HPV vaccine is a 'live' vaccine
D. HPV vaccine contains virus like particles (VLPs), which are formed from capsid proteins
E. VLPs contain modified core virus genetic material that is no longer infectious or carcinogenic.

Question 4

You offer to arrange HPV vaccination for Sarah. You tell her:

A. the commonwealth government will fund the vaccine for women in her age group
B. the vaccine is only funded for girls aged 12–13 years and will be administered through schools
C. she requires two doses of vaccine – one now and a repeat in 6 months
D. because she has finished school she will require a private prescription at a cost of about $150 per dose
E. HPV vaccination results in a decrease of 70% in persistent HPV infection or related disease.

Case 2 – Trudi Weiher and Tina Malpighi

Trudi, aged 28 years, had a Pap test 2 weeks ago. She attends today to discuss her results, which were reported as 'low grade squamous intraepithelial lesions' (LSIL). Trudi's Pap test 2 years ago had been normal and she has no abnormal bleeding or discharge.

Question 5

According to the 2006 *Guidelines for the management of asymptomatic women with screen detected abnormalities* Trudi should:

A. have a repeat Pap test in 6 months
B. have a repeat Pap test in 12 months
C. be referred for colposcopy now
D. have HPV testing now and if positive be referred for colposcopy
E. have HPV testing, repeat Pap smear and colposcopy within the next 6 months.

Question 6

You manage Trudi according to the national guidelines. A subsequent Pap smear reveals high grade squamous epithelial lesions (HSIL) and you refer her for colposcopy. The HSIL is confirmed on biopsy and she undergoes treatment. You discuss appropriate follow up. Trudi should have:

A. testing for 'high risk' HPV 4–6 months after treatment
B. annual colposcopies for 2 years
C. 6 monthly Pap tests for 2 years
D. colposcopy and Pap test at 4 months and Pap test and HPV testing at 12 and 24 months
E. annual Pap screening for life.

Question 7

Tina, aged 37 years, attends for a Pap test. She has not had a Pap test for 5 years since the birth of her first child. She is planning another pregnancy. Her cervix has an inflamed area on one side at the junctional zone that appears to have a slightly raised, irregular surface. This area bleeds when touched lightly with a spatula. Her Pap test result is LSIL. Choose the correct statement:

A. invasive cervical cancer is excluded given the low grade changes on cytology
B. Tina should have a repeat Pap test in 12 months
C. Tina should be referred for colposcopy because of the suspicious cervical appearance irrespective of Pap result
D. LSIL is less concerning in women aged over 30 years as fewer women in this age group are HPV positive
E. Pap tests effectively identify both squamous and glandular preinvasive disease.

Question 8

After further assessment Tina is diagnosed with invasive cervical cancer, stage IB (1.8 cm). Tina is devastated both by the cancer and the prospect of not being able to have another child. Choose the correct statement:

A. radiotherapy would be preferable over surgery as ovarian function would be retained
B. fertility sparing surgery is not possible for Tina as this is only appropriate for women with stage 0 or IA disease
C. radiotherapy has significantly lower recurrence rate than surgery
D. radiotherapy has a lower associated morbidity than surgery
E. usual surgical treatment would be radical hysterectomy and bilateral pelvic lymphadenectomy.

Case 3 – Margaret Atkinson

Margaret, aged 55 years, has type 2 diabetes and hypertension. Her body mass index is 36 kg/m^2. Margaret tells you she 'got her periods back' this week and that 'it was a bit of a shock after none for more than a year'. Her periods stopped at age 53 years after a couple of years of infrequent periods. Margaret has never taken hormone therapy (HT). She has not had a Pap test for 15 years because she doesn't like the idea of vaginal examinations.

Question 9

Speculum and bimanual vaginal examination and Pap smear:

A. are not necessary because Margaret's bleeding is not consistent with the definition of postmenopausal bleeding (PMB)
B. should be deferred because bleeding will interfere with the Pap result
C. should be deferred as Margaret would not want an examination when she is bleeding
D. are not necessary as Margaret needs to be referred for endometrial biopsy anyway
E. are essential.

Question 10

The following clinical features are all risk factors for endometrial carcinoma EXCEPT:

A. nulliparity
B. early menopause (less than 45 years)
C. obesity
D. diabetes
E. unopposed oestrogen therapy.

Question 11

You examine Margaret. She has a normal vulva and vagina but an obvious endocervical polyp that is bleeding. The cervix appears otherwise normal. You remove the polyp using sponge forceps. Histology is benign and Pap smear is normal. What further assessment, if any, is required at this stage:

A. none
B. transvaginal ultrasound
C. endometrial office biopsy
D. hysteroscopy and biopsy
E. cervical dilatation and curettage.

Question 12

Margaret has persisting bleeding despite removal of the polyp. Subsequently she is diagnosed with atypical endometrial hyperplasia. Choose the correct statement:

A. progesterone therapy is appropriate
B. the response rate of endometrial hyperplasia with atypia to progesterone is over 90%
C. there is a lag time of 5 years between atypia and development of endometrial cancer
D. about 1 in 5 women with atypia will have concomitant endometrial carcinoma
E. A and B are both correct.

Case 4 – Caroline and Stephanie Flockhart

Caroline, aged 55 years, separated from her husband 18 months ago. Although stressed and upset at the time, she feels she is now getting her life back together. Despite this she now feels fatigued and is experiencing indigestion, lack of appetite and constipation. Systematic questioning reveals no other specific symptoms.

Question 13

Caroline had menopause 3 years ago and a normal Pap smear 6 months ago. Her symptoms have been present for about 3 months. K10 screening for depression reveals a low score. General and abdominal examination is normal, as are FBE, liver and thyroid function. Faecal occult bloods are negative. You:

A. tell Caroline her symptoms are probably stress related
B. refer her for gastroscopy and colonoscopy
C. perform a pelvic examination
D. arrange CA-125 and transvaginal ultrasound **only** if she has a family history of ovarian cancer
E. refer her to an oncologist immediately.

Question 14

Pelvic examination reveals fullness in the pouch of Douglas and CA-125 is elevated. You arrange an ultrasound, which is suspicious of ovarian cancer. You refer her to a gynaecological oncologist. Choose the correct statement:

A. Caroline will have imaging investigations to stage her cancer to determine if surgery is appropriate
B. definitive diagnosis and staging is made surgically
C. the aim of surgery is only to obtain histological diagnosis and to stage the cancer
D. standard surgery is bilateral salpingo-oophorectomy
E. Caroline is unlikely to have surgical treatment.

Question 15

Caroline commences six cycles of chemotherapy with paclitaxal and carboplatin. Choose the correct statement:

A. CA-125 is not a useful marker of response to treatment
B. following completion of chemotherapy a rise in CA-125 of more than twice normal predicts tumour relapse
C. in patients who relapse after chemotherapy, retreatment is of no benefit
D. radiation therapy following chemotherapy is standard treatment in all patients
E. psychosocial interventions are of benefit to patients but they do not help with physical symptoms such as nausea and vomiting.

Question 16

Caroline's 32 year old daughter, Stephanie, comes to see you to discuss screening tests available for ovarian cancer. Apart from Caroline there are no other relatives with ovarian, breast or bowel cancer in the family. Stephanie has a past history of endometriosis.

A. CA-125 is normal in about half of patients with early (stage 1) ovarian cancer
B. endometriosis may cause false negative CA-125
C. transvaginal ultrasound is more reliable in premenopausal women
D. the only known gene mutations associated with increased risk of ovarian cancer are BRCA1 and BRCA2
E. Stephanie's lifetime risk of ovarian cancer is about the same as for the general population at 1.4%.

ANSWERS TO JANUARY/FEBRUARY CLINICAL CHALLENGE

Case 1 – Chiaki Ohdaijini

1. Answer A
The paroxysmal phase of pertussis lasts 2–8 weeks and is characterised by 5–10 powerful coughs followed by a deep and noisy inspiration.

2. Answer D
The paroxysmal phase may include complications due to the pressure effects of severe coughing. Severe alkalosis with seizures is one of those.

3. Answer E
Laboratory diagnosis of pertussis – irrespective of the technique used – is not a very sensitive tool. While positive tests can be useful, negative tests can be false. Direct fluorescent antibody studies have problems with sensitivity and specificity, too, and a swab (not cotton) for culture is difficult to collect reliably. PCR is better but still has a significant false negative rate, and antibodies might be slow to appear if serology is used.

4. Answer B
Boostrix (at approximately $40) is the only pertussis vaccine recommended for adult use in Australia. Immunisation is effective for 6–12 years, and infection confers immunity for around 15 years.

Case 2 – Tony Petsalis

5. Answer C
Microalbuminuria, due to glomerular 'leakiness', is the earliest indicator of diabetic nephropathy. Other causes of kidney damage and reduced GFR do not necessarily cause microalbuminuria. P-creat varies with both GFR and muscle mass.

6. Answer B
Although technically more demanding, GFR can be measured directly by the use of inulin clearance.

7. Answer D
Both ACE inhibitors and ARAs can decrease GFR. 10% variation in plasma creatinine may well be just normal variability. Captopril is a short acting ACE inhibitor.

8. Answer E
Some hypoglycaemics, some potassium sparing diuretics, and some antibiotics need to be avoided when GFR <30 mL/min. Others need to be used with particular caution.

Case 3 – Brenda Fortag

9. Answer B
While it is indeed represented diagrammatically as a round, multicoloured thingy – a bit like a berserk Frisbee – the RACGP Quality Framework is merely a way of helping people think broadly about how to improve the quality of Australian general practice.

10. Answer D
Historical approaches to quality improvement in general practice have focused on changing the behaviours of individual doctors (eg. through vocational training, certification by the fellowship, continuing education) or on better organising the healthy system. It is not yet clear how the best results are achieved.

11. Answer A
The WONCA Working Party on Quality in Family Medicine defines 'quality' as the best possible outcomes given available resources and the preferences and values of patients.

12. Answer A
Professionalism relates to the GP's intrinsic values; competence is his or her acquired ability to deliver quality care; and financing is either a powerful enabler or a barrier to quality.

Case 4 – Mahadrel Juhita

13. Answer A
This item number is only available as a once off for refugees or other humanitarian entrants who have been in Australia for less than 12 months.

14. Answer B
There is no compulsion to carry out any particular clinical activity or values realignment. A written report about the health assessment must be handed to the patient.

15. Answer D
Nurses and other health workers are allowed to collect information from the patient with their consent and under the doctor's supervision. The doctor does not have to be physically present for this component of the check.

16. Answer E
Common things are common.

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