Clinical challenge

These questions are based on the Focus articles in this issue. Please choose the single best answer for each question.

CASE 1

Penelope, a woman aged 58 years, presents to you for investigation of a suspicious pigmented lesion.

QUESTION 1

Based on Australian guidelines, the preferred diagnostic procedure for suspicious pigmented lesions is:

A. punch biopsy
B. shave excision
C. elliptical excision
D. curettage and cryotherapy

CASE 2

Harry, a man aged 60 years, with a history of frequent childhood sunburns, presents to you for management of suspected skin cancer.

QUESTION 2

For patients with a heavy burden of keratinocyte skin cancers, in addition to regular sunscreen, chemoprophylaxis can be considered with the use of:

A. vitamin A
B. vitamin B3
C. vitamin B6
D. vitamin C

QUESTION 3

What is the baseline level of ultraviolet (UV) index at which sunscreen is recommended to be applied as part of a usual daily routine to reduce the risk of squamous cell carcinoma (SCC), melanoma and keratoses?

A. 1
B. 3
C. 5
D. 7

QUESTION 4

Following referral to a dermatologist, which medication might be prescribed for reduction of squamous cell carcinoma (SCC) in both immunocompetent and solid organ transplant patients?

A. Cemiplimab
B. Imiquimod
C. Acitretin
D. Fluorouracil

CASE 3

Sarah, a woman aged 70 years, presents to you for management of significant solar and actinic keratosis.

QUESTION 5

Which option is approved by the Therapeutic Goods Administration (TGA) for the treatment of actinic keratosis and superficial basal cell carcinoma (BCC)?

A. Imiquimod
B. Cryotherapy
C. Photodynamic therapy
D. 5-Fluorouracil

QUESTION 6

As an alternative field treatment option, how is diclofenac 3% prescribed?

A. Daily for one month.
B. Twice daily for one month.
C. Daily for three months.
D. Twice daily for three months.

CASE 4

Arnold, a man aged 48 years, presents for treatment of a pigmented lesion.

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RACGP CPD Approved Activity

Educational Activities	Reviewing Performance
8 hours	8 hours

The five domains of general practice

- D1 Domain 1: Communication skills and the patient–doctor relationship
- D2 Domain 2: Applied professional knowledge and skills
- D3 Domain 3: Population health and the context of general practice
- D4 Domain 4: Professional and ethical role
- D5 Domain 5: Organisational and legal dimensions

These domains apply to all Focus articles, which are required reading for the Clinical challenge CPD activity.

How to use *AJGP* for your CPD

Each issue of the *Australian Journal of General Practice* (*AJGP*) has a focus on a specific clinical or health topic. Many GPs find the entire issue of interest and of relevance to their practice; some GPs find one or more articles in the journal relevant.

You can use *AJGP* for your CPD. If you want to use the entire issue for CPD, you must work your way carefully through each article in the issue and complete the Clinical challenge. When you do this, take time to read the articles carefully and critically, and think carefully about how you might adjust your practice in response to what you have learned.

We recommend that you access *AJGP*, the articles and the Clinical challenge through gplearning (https://gpl.racgp.org.au/d2l/home) (Activity ID: 909893). Then, when you complete the articles and the Clinical challenge, your CPD hours are automatically credited to your CPD account. If you work through the full issue of *AJGP* and complete the Clinical challenge, you will receive 16 CPD hours (eight hours' Educational Activities and eight hours' Reviewing Performance).

If you do not want to do the full *AJGP* issue, and you prefer to select one or more articles to read, you can QuickLog the CPD hours directly through your myCPD dashboard. As guidance, each article in *AJGP* would provide 1–2 CPD hours, split half Educational Activities and half Reviewing Performance.

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QUESTION 7

When performing an elliptical excision of a suspected melanoma, at least how many times longer than the width should the incision be?

A. Two
B. Three
C. Four
D. Five

CASE 5

Janet, a woman aged 60 years, presents to see you for the results of her recent skin biopsy.

QUESTION 8

In weeks, how long should pre-treatment of a field area with a keratolytic containing salicylic acid be used to improve treatment efficacy?

A. One
B. Two
C. Three
D. Four

QUESTION 9

Which chemical is used to dehydrate tissue slices to allow molten paraffin wax to be later infused into the tissue?

A. Formalin
B. Alcohol
C. Haematoxylin
D. Xylene

QUESTION 10

How long, in months, is the laboratory required to keep any unprocessed tissue after the pathology report has been issued?

A. One
B. Three
C. Six
D. 12

These questions are based on the Focus articles in this issue. Please write a concise and focused response to each question.

CASE 1

Penelope, a woman aged 58 years, presents to you for investigation of a suspicious pigmented lesion.

QUESTION 1

List three specific indications for the use of shave procedures in the management of melanoma.

QUESTION 2

List five benefits of shave excision performed by practitioners trained in lesion selection and technique in the management of melanoma, as compared to elliptical excision.

CASE 2

Harry, a man aged 60 years, with a history of frequent childhood sunburns, presents to you for management of suspected skin cancer.

QUESTION 3

What three factors are associated with an increased risk of squamous cell carcinoma (SCC)?

QUESTION 4

List four secondary skin cancer prevention strategies that general practitioners (GPs) can suggest.

CASE 3

Sarah, a woman aged 70 years, presents to you for management of significant solar and actinic keratosis.

QUESTION 5

List seven features on history and examination that increase the malignant potential of actinic keratosis into squamous cell carcinoma (SCC).

QUESTION 6

List three features that might make squamous cell carcinoma (SCC) in situ in terminal hair-bearing areas (eyebrows and scalp) more suited to management with surgical excision than cryotherapy.

QUESTION 7

List three considerations to improve effectiveness when performing field treatment of solar damaged skin.

QUESTION 8

List four pain management strategies to be used alongside conventional photodynamic therapy in field treatment.

CASE 4

Arnold, a man aged 48 years, presents for treatment of a pigmented lesion.

QUESTION 9

List three considerations for deciding whether to perform an excisional, punch or shave biopsy for a suspicious lesion.

CASE 5

Janet, a woman aged 60 years, presents to you for the results of her recent skin biopsy.

QUESTION 10

List the three different sampling methods used by Australian histopathology laboratories that can explain the variation in reported skin cancer recurrence rates.

July 2024 Multiple-choice question answers

ANSWER 1: B

The electrocardiogram (ECG) remains the best initial test for evaluation of chest pain because it is rapid, inexpensive and provides critical diagnostic and prognostic information.

ANSWER 2: D

Patient groups, such as women, elderly patients, those with dementia and individuals with diabetes, might not exhibit typical symptoms of ischaemic chest pain. In addition, patients experiencing distracting pain, such as from a concurrent hip fracture, might not accurately report or might underestimate their chest pain.

ANSWER 3: C

Classic Tetralogy of Fallot comprises four cardiac abnormalities: pulmonary valve stenosis causing right ventricular outflow tract obstruction, a large ventricular septal defect, abnormality of the aortic root and progressive hypertrophy of the right ventricle due to the outflow obstruction.

ANSWER 4: A

Acquired heart disease, as a sequelae of Kawasaki disease, is an important complication requiring long-term monitoring.

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ANSWER 5: B

Aortic valve replacement is the only treatment that improves mortality in patients with symptomatic severe aortic stenosis. Appropriate treatment at the onset of mild symptoms can prevent the development of heart failure, syncope or angina. For patients with symptomatic severe high-gradient aortic stenosis, aortic valve replacement improves survival, symptoms and left ventricular systolic function.

ANSWER 6: B

It is recommended that asymptomatic patients with severe aortic stenosis undergo watchful waiting with repeat echocardiogram every 6–12 months. For mild disease, an echocardiogram at three to five years is recommended, increasing to one to two years for those with moderate disease.

ANSWER 7: C

Transthoracic echocardiography is the recommended initial test for patients with suspected aortic stenosis. Echocardiography helps accurate identification of the number of valve leaflets, assessment of valve motion, the presence and extent of calcification, associated other structural heart disease and left ventricular function.

ANSWER 8: A

Cardiac magnetic resonance imaging (MRI) is the gold standard imaging modality for assessing the right ventricle (RV), but in patients who cannot have an MRI scan, functional cardiac computed tomography can be conducted to obtain RV volume measurements.

ANSWER 9: B

Good healthy practices, such as regular exercise to maintain cardiovascular fitness and dental hygiene to minimise endocarditis, should be encouraged.

ANSWER 10: A

Infective endocarditis is an important complication in patients with repaired Tetralogy of Fallot. This most commonly involves the pulmonary valve and, rarely, might involve the previous VSD patch repair. All patients should be strongly encouraged to have regular dental reviews to minimise the risk of endocarditis. In addition, in patients with prosthetic material or residual shunts, antibiotic prophylaxis is recommended for any invasive procedures. Detailed guidelines on antibiotic prophylaxis for the prevention of endocarditis is available through Therapeutic Guidelines.

July 2024 Short answer question answers

ANSWER 1

Five types of chest pain that indicate the chest pain is unlikely to be due to angina are:

- sharp pain that worsens with breathing
- brief pain lasting only a few seconds
- highly localised pain
- pain that is reproduced with movement
- pain that is reproduced by palpation.

ANSWER 2

Eight causes of gastrointestinal chest pain are:

- erosive and non-erosive gastro-oesophageal reflux disease
- oesophageal motility disorders
- oesophageal hypersensitivity
- hiatus hernia
- gastroduodenal ulcer
- pancreatitis
- biliary colic
- cholangitis.

The pulmonary causes of chest pain include pneumothorax, pneumonia, pulmonary embolism, asthma, chronic obstructive pulmonary disease and malignancy.

ANSWER 3

Echocardiography is the preferred diagnostic method for pathological murmurs and is not usually necessary in most cases of innocent murmurs. Murmurs in older infants and children are more commonly innocent murmurs and do not typically require echocardiography.

A pathological murmur might have any of the following features:

- loud or harsh sound, grade 3 or louder
- long lasting
- heard in multiple areas of the chest
- might be heard in any part of the cardiac cycle
- unchanged in quality when position is changed
- might radiate to the neck or back
- associated symptoms of chest pain, dyspnoea or fatigue
- associated signs of clubbing, cyanosis, ejection click or added heart sounds, tachycardia or hypertension.

ANSWER 4

Five red flags in the history of infants and children presenting with a murmur include:

- feeding difficulties, diaphoresis
- respiratory distress, tachypnoea, cyanosis, low saturation, frequent respiratory illness, chronic cough
- fatigue, palpitations, reduced exercise capacity, precordial pain
- dizziness, presyncope/syncope
- history of prematurity, Kawasaki disease, acute rheumatic fever and/or rheumatic heart disease, murmur in First Nations children, infective endocarditis.

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ANSWER 5

Paediatric cardiology referral is recommended in the following circumstances:

- less than three months of age
- greater than three months of age with a pathological murmur
- suspicion of acute rheumatic fever or rheumatic heart disease
- known congenital heart disease
- family history of congenital heart disease in a first-degree relative, history of Marfan's syndrome, cardiomyopathy or unexplained sudden death
- known chromosomal or genetic condition associated with congenital heart disease
- failure to thrive, poor growth, feeding difficulties
- associated symptoms present: dyspnoea, frequent chest infections, unable to keep up with peers during physical exertion, palpitations, syncope or chest pain
- additional signs on examination: clubbing, cyanosis, clicks or added heart sounds, tachycardia or hypertension
- prenatally diagnosed cardiac abnormality on ultrasound.

ANSWER 6

Four auscultatory findings of aortic stenosis are:

- heart sounds and pulse: narrow S2, ejection click
- pulse: normal or reduced
- systolic murmur: harsh ejection systolic murmur at upper right sternal border, radiating to the neck
- diastolic murmur: no diastolic component.

ANSWER 7

The flow pattern differences between innocent and pathological murmurs in children are:

- innocent murmurs occur due to normal flow patterns without any structural defects in the heart
- pathological murmurs are created by abnormal blood flow that could arise from congenital or acquired heart abnormalities.

ANSWER 8

Five common symptoms of aortic stenosis are:

- exertional dyspnoea
- decreased exercise tolerance
- dyspnoea
- angina
- syncope.

ANSWER 9

Eleven possible complications in adulthood following childhood repair of Tetralogy of Fallot are:

- pulmonary valve dysfunction
- residual ventricular septal defect
- ventricular arrhythmias
- right ventricular dilatation and dysfunction
- recurrent right ventricular outflow obstruction and aneurysm formation
- branch pulmonary artery stenosis
- left ventricular systolic dysfunction
- aortic root dilatation
- aortic regurgitation
- atrial arrhythmia
- infective endocarditis.

ANSWER 10

Exercise restriction is based on the patient's cardiac function and complications following repair.

- Exercise restriction is not required in patients with no significant residual lesions, preserved biventricular function, no aortic root dilatation and a relatively short QRS duration.
- If there is a history of life-threatening arrhythmias, significant exercise restriction is advised.
- If there are haemodynamically significant findings that do not meet thresholds for surgery, some exercise restriction might be required.

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