

Clinical challenge

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

CASE 1

Carla, a woman aged 46 years, presents to discuss dietary strategies to optimise her health.

QUESTION 1

The most prevalent modifiable risk factor is:

- A. exercise
- B. alcohol
- C. diet
- D. smoking

CASE 2

Meena, a woman aged 65 years, would like to discuss the benefits of accredited dietitian review in the setting of type 2 diabetes mellitus.

QUESTION 2

An underexamined factor that might influence general practitioners' (GPs') provision of nutrition care is:

- A. personal experience
- B. seasonal variation
- C. increased cost
- D. limited time

CASE 3

Tao, a man aged 72 years, is noted to have hypercalcaemia on routine blood tests.

QUESTION 3

The most common causes of hypercalcaemia are hyperparathyroidism and:

- A. hyperphosphatemia
- B. malignancy
- C. vitamin D deficiency
- D. hyperthyroidism

QUESTION 4

A potential cause of parathyroid hormone-independent hypercalcaemia is:

- A. cirrhosis
- B. renal failure
- C. pancreatitis
- D. sarcoidosis

QUESTION 5

Severe hypercalcaemia of acute onset can cause polyuria, polydipsia, renal stones, renal impairment, neuropsychiatric symptoms and:

- A. urticaria
- B. tetany
- C. arrhythmias
- D. seizures

QUESTION 6

The key investigation for hypercalcaemia is investigating levels of:

- A. phosphate
- B. vitamin D
- C. thyroid stimulating hormone
- D. parathyroid hormone

CASE 4

Your new registrar, Nathan, would like to discuss strategies to optimise nutrition in patients with alcohol dependence.

QUESTION 7

A standard drink contains 10 g alcohol, which equates to:

- A. 250 kJ
- B. 280 kJ
- C. 290 kJ
- D. 270 kJ

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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: 771499). 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 10 CPD hours (five hours' Educational Activities and five 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.



QUESTION 8

A substitute for assessing body mass index (BMI) in patients who might be difficult to weigh or have other factors that might influence weight is:

- A. abdominal ultrasound
- B. mid-upper arm circumference
- C. fluid output
- D. cortisol levels

CASE 5

Alyssa, a woman aged 38 years, with breast cancer, would like to discuss strategies to integrate physical activity into her daily routine.

QUESTION 9

Four minutes of brisk walking is classified as physical activity that is:

- A. vigorous
- B. light
- C. moderate
- D. brief

QUESTION 10

Barriers to physical activity commonly reported in people affected by cancer include fatigue, pain, treatment side effects, access to facilities, financial considerations and:

- A. discrimination
- B. time
- C. kinesiophobia
- D. weight loss

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

CASE 1

Carla, a woman aged 46 years, presents to discuss dietary strategies to optimise her health.

QUESTION 1

Define the concept of chrono-nutrition through time-restricted eating (TRE).

CASE 2

Meena, a woman aged 65 years, would like to discuss the benefits of accredited dietitian review in the setting of type 2 diabetes mellitus.

QUESTION 2

List two barriers to providing nutrition care in general practice.

CASE 3

Tao, a man aged 72 years, is noted to have hypercalcaemia on routine blood tests.

QUESTION 3

Define what is meant by the term 'milk-alkali syndrome'.

QUESTION 4

List further investigations that are required for investigating parathyroid hormone (PTH)-independent hypercalcaemia.

CASE 4

Your new registrar, Nathan, would like to discuss strategies to optimise nutrition in patients with alcohol dependence.

QUESTION 5

Define what is meant by the term 'alcohol dependence'.

QUESTION 6

Define what is meant by the term 'risky drinking'.

CASE 5

Alyssa, a woman aged 38 years, with breast cancer, would like to discuss strategies to integrate physical activity into her daily routine.

QUESTION 7

State the Clinical Oncology Society of Australia recommendations for physical activity.

QUESTION 8

Define what is meant by the term 'physical activity'.

QUESTION 9

Define what is meant by the term 'exercise'.

QUESTION 10

List three ways in which physical activity intensities can be measured.

March 2024 Multiple-choice question answers

ANSWER 1: C

Modifying activities for plantar fasciitis include avoiding running, weight management and prolonged standing.

ANSWER 2: C

The mainstay of diagnosis in arthritis of the foot and ankle is a weight-bearing plain X-ray.

ANSWER 3: B

In inflammatory arthritis, MRI will demonstrate synovitis, perichondral erosions and cyst formation.

ANSWER 4: C

The mainstay of treatment of arthritis of the foot involves activity modification, weight loss and footwear changes.

ANSWER 5: A

Conditioned pain modulation is a lower brainstem mediated inhibitory mechanism that has been linked to several pain syndromes.

ANSWER 6: B

Temporal pain summation is linked to activation of NMDA receptors in the dorsal horn.

ANSWER 7: C

A novel strategy to improve cardiometabolic health is exercise snacks. Exercise snacks are brief periods of vigorous physical activity generally lasting approximately one to five minutes that aim to accumulate small, frequent doses of moderate-vigorous physical activity throughout the day.

ANSWER 8: D

The most important outcome of regular exercise is the improvement in cardiorespiratory fitness measured by the maximal rate of oxygen consumption (VO₂ max), reflecting the capacity for oxygen transport, uptake and utilisation.

ANSWER 9: B

Bouts of high-intensity exercise interspersed with lower-intensity recovery periods is otherwise known as high-intensity interval training (HIIT).

ANSWER 10: B

The recommended duration of physical activity for toddlers throughout the day is three hours spread out throughout the day, rather than done in one burst and should be enjoyable and stimulate curiosity and learning.

March 2024 Short answer question answers

ANSWER 1

The high-risk stress fractures of the foot that warrant urgent referral are:

- navicular
- anterior tibial cortex
- fifth metatarsal shaft
- sesamoids
- medial malleolus.

ANSWER 2

Navicular stress fractures will often present with point tenderness over the navicular tuberosity on the medial border of the foot, and also at the dorsum of the foot distal to the ankle.

ANSWER 3

Hallmark symptoms of diabetic peripheral neuropathy (DPN) are numbness, tingling, aching, and shooting and burning pain.

ANSWER 4

Temporal summation of pain (TSP) and conditioned pain modulation (CPM) protocols are used to study endogenous pain facilitation and inhibition, respectively, and might help explain the different symptom experiences of patients with diabetic peripheral neuropathy.

ANSWER 5

Temporal summation of pain (TSP) refers to the perception of increasing pain in response to repeated noxious stimuli and is linked to activation of NMDA receptors in the dorsal horn.

ANSWER 6

Conditioned pain modulation (CPM) refers to the phenomenon known as 'pain inhibits pain', which occurs when response to a painful (test) stimulus is inhibited by another, distant, noxious (conditioning) stimulus.

ANSWER 7

Exercise snacks are brief periods of vigorous physical activity generally lasting approximately one to five minutes that aim to accumulate small, frequent doses of moderate-vigorous physical activity throughout the day.

ANSWER 8

For children aged five years and older, the Australian exercise guidelines include at least 60 minutes of moderate to vigorous physical activity each day, which can be divided into several shorter bouts throughout the day.

ANSWER 9

The chronic conditions and disabilities in children that might preclude generalised activity guidance are:

- mobility limitations
- sensory impairments
- cognitive and learning disability
- chronic health conditions (eg obesity, asthma)
- mental health challenges.

ANSWER 10

The cultural considerations that affect how children exercise are:

- family support and engagement
- religious beliefs and practices (eg sporting attire, fasting periods)
- gender norms and expectations, including cultural sensitivities to mixed gender participation
- language and communication.

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