



This issue of *Australian Journal of General Practice (AJGP)*, including the articles and clinical challenge, is an RACGP Continuing Professional Development (CPD) program-approved activity (Activity ID: 472366) and is allocated a total of **seven** CPD hours. CPD points are self-declared. Therefore, completion of all *AJGP* CPD activities equates to 77 hours per calendar year.

This includes:

- two hours' Educational Activity: Reading the journal
- two hours' Measuring Outcomes: Completion of the clinical challenge
- three hours' Reviewing Performance: Self-reflection.

Answers to the clinical challenge are published in the following edition of *AJGP*, and are available immediately following successful completion online at [www.racgp.org.au/education/professional-development/online-learning/gplearning](http://www.racgp.org.au/education/professional-development/online-learning/gplearning).

# Clinical challenge

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

## CASE 1

Shelley, a female aged 26 years, presents with feelings of anxiety and uncertainty about the future after returning from a recent environmental sustainability summit.

### QUESTION 1

Adaptive coping with climate distress can be considered across three domains, namely meaning-focused coping, problem and:

- A. behaviour
- B. emotion
- C. validation
- D. trauma

### QUESTION 2

Cognitive behavioural therapy (CBT) can help reframe unhelpful thoughts and build:

- A. coping skills
- B. increased efficacy
- C. stronger reputation
- D. physical stamina

### QUESTION 3

Promising approaches to manage climate anxiety include supporting collective action, group-based therapy, peer support and:

- A. electroconvulsive therapy
- B. low-dose antidepressants
- C. dialectical behaviour therapy
- D. nature connection

## CASE 2

Melissa, a diplomat aged 35 years, based in Papua New Guinea, is urgently transferred to a tertiary hospital in Australia with fever, headache, rash and generalised rigidity.

### QUESTION 4

In Australia, the major vector for transmission of the Japanese encephalitis (JE) virus between animal hosts and humans occurs via the mosquito, *Culex*:

- A. *pipiens*
- B. *erraticus*
- C. *annulirostris*
- D. *malariae*

### QUESTION 5

The gold standard for diagnosis of JE is detection of cerebrospinal fluid (CSF) immunoglobulin (Ig):

- A. G
- B. M
- C. E
- D. A

## CASE 3

Nitin, a general practitioner and practice owner aged 52 years, is keen to learn about how to achieve and promote sustainability in practice operations.

### QUESTION 6

Clinical emissions estimates suggest that between 65% and 90% of the carbon footprint in general practice in the UK is associated with:

- A. allied health interventions
- B. pharmaceutical prescribing
- C. pathology testing
- D. diagnostic imaging

### QUESTION 7

To limit global warming to 1.5°C, the Climate Council has called for Australia to reach net zero emissions by 2035, with a 75% reduction by:

- A. 2030
- B. 2025
- C. 2032
- D. 2023

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**CASE 4**

Trang, a female aged 62 years, would like to discuss the benefits of a plant-based diet at her next consultation.

**QUESTION 8**

The major driver of biodiversity loss is:

- A. longevity
- B. bush fires
- C. agriculture
- D. housing

**QUESTION 9**

The benefits of Mediterranean diets include reducing the risk of heart disease, metabolic syndrome, many types of cancer and:

- A. presbycusis
- B. neuropathy
- C. tuberculosis
- D. depression

**QUESTION 10**

Mediterranean diets are relatively plant rich, with protein coming from legumes, nuts, cheese, fish, poultry and rabbit, as well as smaller portions of:

- A. monosodium glutamate
- B. refined sugars
- C. clarified butter
- D. red meat

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

**CASE 1**

Shelley, a female aged 26 years, presents with feelings of anxiety and uncertainty about the future after returning from a recent environmental sustainability summit.

**QUESTION 1**

Define what is meant by the term 'solastalgia'.

**QUESTION 2**

Define what is meant by the term 'emotion-focused coping' with regards to climate change.

**QUESTION 3**

List two evidence-based psychological strategies that can be used to manage climate anxiety.

**CASE 2**

Melissa, a diplomat aged 35 years, based in Papua New Guinea, is urgently transferred to a tertiary hospital in Australia with fever, headache, rash and generalised rigidity.

**QUESTION 4**

List five personal protective measures to limit mosquito exposure.

**QUESTION 5**

List four members of the *Flaviviridae* family of single-stranded RNA viruses.

**QUESTION 6**

Define what is meant by the term 'dead-end host'.

**CASE 3**

Nitin, a general practitioner and practice owner aged 52 years, is keen to learn about how to achieve and promote sustainability in practice operations.

**QUESTION 7**

List three ways in which climate change can impact health.

**QUESTION 8**

List two holistic and sustainable interventions in general practice to reduce clinical emissions.

**CASE 4**

Trang, a female aged 62 years, would like to discuss the benefits of a plant-based diet at her next consultation.

**QUESTION 9**

List six practical tips for shifting to more sustainable everyday meals.

**QUESTION 10**

List two adverse health outcomes associated with high red meat intake.

## April 2023 Multiple choice question answers

### ANSWER 1: A

Nature prescribing involves a health professional giving patients a recommendation to spend time in nature, and may also encompass a written prescription, referral to another provider or verbal counselling.

### ANSWER 2: C

Prescriptions, whether written or verbal, could include the type of activity, frequency and duration of activity (eg community gardening, once a week, for a month).

### ANSWER 3: B

Facilitators include the availability of low-cost or free activities, and the use of link workers (or community health workers) who can provide coaching and connections to a range of resources, supplementing the health practitioner's focus on biomedical options.

### ANSWER 4: C

Deprescribing is a safe and effective method of reducing polypharmacy and high-risk prescribing.

### ANSWER 5: B

Patient-related barriers include inadequate knowledge about deprescribing or medication review, perceived or potential reliance on certain medicines, personal beliefs and attitudes.

### ANSWER 6: D

Polypharmacy increases the treatment burden for a patient and, paradoxically, may lead to the underprescribing of indicated medications.

### ANSWER 7: C

The precise pathogenesis of fibromyalgia remains unclear, but the three main mechanisms that have been hypothesised in the literature include altered central nervous system (CNS) sensory synaptic transmission,

autonomic system dysfunction and peripheral neurogenic inflammation.

### ANSWER 8: C

Patients with fibromyalgia often experience considerable disruptions to normal daily routines, including poor sleep, reduced activity, low mood and reduced social engagement.

### ANSWER 9: B

Low-dose naltrexone may improve symptoms in patients with fibromyalgia by changing the processes of central and peripheral sensitisation.

### ANSWER 10: A

Extremely common side effects of non-prescribed performance-enhancing drugs include abnormal liver function tests, hypertension, gynaecomastia, hyperlipidaemia, testosterone suppression and depression.

## April 2023 Short answer question answers

### ANSWER 1

Nature prescribing may include prescribing nature-based activities that enhance physical activity and improve social connection, wellbeing and mental health.

### ANSWER 2

'Green space' interventions are delivered in land-based natural environments whereas 'Blue' nature therapy includes interventions in or in the vicinity of water, including streams, rivers, lakes or the ocean, and can include surfing, dragon boat racing, scuba diving, sailing, fishing, swimming and walking or running by rivers or the sea.

### ANSWER 3

Facilitators include the availability of low-cost or free activities, and the use of link workers (or community health workers).

### ANSWER 4

Prescribing cascades occur when a drug-related adverse reaction is misinterpreted as a new medical condition and a second medicine is used to manage the symptoms.

### ANSWER 5

Deprescribing refers to the planned withdrawal of medicines that are causing harm or not helping an individual.

### ANSWER 6

Polypharmacy is defined by the concurrent use of five or more medications.

### ANSWER 7

PIMs are medicines with an unfavourable benefit-harm ratio or no clear evidence-based indication that are not cost-effective or are used instead of a safer and more effective alternative.

### ANSWER 8

Low-dose naltrexone is thought to antagonise Toll-like receptor 4 activity in glial cells and consequently reduce activation of the inflammatory cascade and nociceptive system.

### ANSWER 9

Side effects of low-dose naltrexone are gastrointestinal cramping and diarrhoea, and vivid dreams.

### ANSWER 10

Performance- and image-enhancing drugs are used for a range of non-medical purposes, including to enhance strength, increase muscle mass and to change physical appearance.

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