

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: 495978) 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.

Clinical challenge

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

CASE 1

Ella, a woman aged 38 years, G1P0, currently of 12-weeks' gestation, presents to your clinic for routine review.

QUESTION 1

Low dairy intake in pregnancy is associated with small-for-gestationalage neonates and spontaneous abortion and maternal:

- A. bone fragility
- B. preeclampsia
- c. muscle atrophy
- **D.** postpartum psychosis

QUESTION 2

Healthy Bones Australia recommends four serves of dairy per day, equating to a daily calcium intake of:

- A. 4000 mg
- **B.** 400 mg
- **c.** 200 mg
- **D.** 1000 mg

CASE 2

Karen, a woman aged 32 years and a new patient to your practice, would like to discuss strategies to reduce cannabis consumption.

QUESTION 3

The principles of trauma-informed care include safety, trust, choice, collaboration, respect for diversity and:

- A. integration
- B. empowerment
- c. support
- **D.** validation

QUESTION 4

Withdrawal symptoms arise when a person's brain neuroadapts to a drug, which affects the hypothalamicpituitary-adrenal axis and:

- A. hippocampus
- B. thalamus
- c. amygdala
- D. cerebellum

QUESTION 5

Cessation of a drug creates acute brain stress and the dumping of key feel-good hormones, such as dopamine, serotonin and:

- A. acetylcholine
- B. glutamate
- c. oxytocin
- **D.** γ-aminobutyric acid

CASE 3

Kim, a man aged 30 years, presents with an asymptomatic rash in the setting of hypertension and hyperlipidaemia.

QUESTION 6

Eruptive xanthoma is a significant indicator of systemic metabolic disorders, including dyslipidaemia and:

- A. porphyria
- B. diabetes
- c. phenylketonuria
- **D.** adrenoleucodystrophy

QUESTION 7

Secondary factors that contribute to hypertriglyceridaemia can include medications, obesity, alcohol abuse, uncontrolled diabetes and:

- A. hypothyroidism
- **B.** lipoprotein lipase deficiency
- c. familial hypertriglyceridaemia
- familial combined hyperlipidaemia

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CASE 4

Beng, a boy aged three years, is booked in as an emergency appointment as his mother is concerned about accidental ingestion of paracetamol tablets.

QUESTION 8

Paracetamol ingestion may be associated with acute liver injury and a child should be referred to hospital for blood tests and assessment if acute ingestion exceeds:

- A. 50 mg/kg
- **B.** 100 mg/kg
- **c.** 20 mg/kg
- **D.** 200 mg/kg

QUESTION 9

Some individuals are at greater risk of toxicity than others due to advanced age, comorbidities, alcohol use, nutritional status (eg prolonged fasting), genetic predisposition or:

- A. plant-based diets
- B. concurrent medications
- c. rigorous exercise
- D. smoking

CASE 5

Pamela, a naturopath aged 60 years, presents to your clinic for review following hospital admission for a non-ST elevation myocardial infarction.

QUESTION 10

Pharmacokinetic complementary medicine drug interactions can alter drug absorption, metabolism, elimination and:

- A. requirement
- B. palatability
- c. distribution
- **D.** tolerance

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

CASE 1

Ella, a woman aged 38 years, G1PO, currently of 12-weeks' gestation, presents to your clinic for routine review.

QUESTION 1

List the current Therapeutic Goods Administration recommendations as to the correct administration of thyroxine (T4).

CASE 2

Karen, a woman aged 32 years and a new patient to your practice, would like to discuss strategies to reduce cannabis consumption.

QUESTION 2

List four specific strategies to plan for a successful drug withdrawal.

QUESTION 3

Define what is meant by the term 'kindling'.

QUESTION 4

List three long-term side effects of benzodiazepines.

CASE 3

Kim, a man aged 30 years, presents with an asymptomatic rash in the setting of hypertension and hyperlipidaemia.

QUESTION 5

List four differential diagnoses for eruptive xanthoma.

CASE 4

Beng, a boy aged three years, is booked in as an emergency appointment as his mother is concerned about accidental ingestion of paracetamol tablets.

QUESTION 6

State the specific liver enzyme that is measured to assess acute liver injury in patients with suspected paracetamol overdose.

QUESTION 7

State three factors that increase acute liver toxicity and death in patients with acute intentional paracetamol ingestion.

CASE 5

Pamela, a naturopath aged 60 years, presents to your clinic for review following hospital admission for a non-ST elevation myocardial infarction.

QUESTION 8

Define what is meant by the term 'drug interaction'.

QUESTION 9

Define what is meant by the term 'pharmacodynamic interaction'.

QUESTION 10

Define what is meant by the term 'pharmacokinetic interaction'.

May 2023 Multiple choice question answers

ANSWER 1: B

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

ANSWER 2: A

Cognitive behavioural therapy (CBT) can help reframe unhelpful thoughts and build coping skills.

ANSWER 3: D

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

ANSWER 4: C

In Australia, the major vector for transmission of the Japanese encephalitis virus between animal hosts and humans occurs via the mosquito, *Culex annulirostris.*

ANSWER 5: B

The gold standard for diagnosis of JE is detection of cerebrospinal fluid (CSF) Immunoglobulin (Ig) M.

ANSWER 6: B

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

ANSWER 7: A

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 2030.

ANSWER 8: C

The major driver of biodiversity loss is agriculture.

ANSWER 9: D

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

ANSWER 10: D

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

May 2023 Short answer question answers

ANSWER1

Solastalgia can be defined as feelings of distress, loss and grief arising from environmental change affecting a person's sense of connection to place.

ANSWER 2

Emotion-focused coping means addressing the thoughts and feelings associated with climate change.

ANSWER 3

Cognitive behavioural therapy (CBT) and acceptance commitment therapy (ACT) are two psychological strategies that can be used to manage climate change.

ANSWER 4

- Limiting time outdoors during peak
 mosquito activity
- Wearing long, loose fitted clothing
- Regularly applying effective mosquito repellent
- Removing water-holding containers
 where mosquitoes can breed
- Ensuring entries to accommodation are covered with mosquito nets or screens

ANSWER 5

- Zika virus
- West Nile virus (Kunjin)
- Murray Valley encephalitis virus
- Dengue virus

ANSWER 6

A dead-end host cannot transmit the virus if infected.

ANSWER 7

- Death and illness from increasingly frequent extreme weather events
- Disruptions to food systems
- · Changes in vector-borne diseases

ANSWER 8

- · Lifestyle interventions
- · Psychosocial interventions

ANSWER 9

- · Change meat type
- Reduce the portion size of meat and eat more healthy plant-based food
- Start with one or two meat-free days each week (eg meat-free Mondays)
- Explore different recipes and cooking styles to make plant-based diets attractive
- · Eat local food, in season
- Reduce food waste

ANSWER 10

- Increased risk of colorectal cancer
- Increased risk of type 2 diabetes