



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 multiple choice questions of the RACGP Fellowship exam. The quiz is endorsed by the RACGP Quality Improvement and Continuing Professional Development Program and has been allocated 4 Category 2 points per issue. Answers to this clinical challenge are available immediately following successful completion online at www.gplearning.com.au. Clinical challenge quizzes may be completed at any time throughout the 2011–13 triennium, therefore the previous months answers are not published.

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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

Anna Young

Anna, 29 years of age, is a nurse who is 12 weeks pregnant.

Question 1

Anna has a past history of gestational diabetes mellitus (GDM). During her appointment, she mentions the Hyperglycaemia and Pregnancy Outcome (HAPO) study. Regarding the HAPO study, which of the following is CORRECT:

- a correlation was found between maternal glucose at 16–20 weeks and infant birth weight
- a strong correlation was found between maternal glucose and infant percentage body fat
- HAPO has not been universally accepted, as confounding factors were not adjusted for
- no correlation was found between maternal glucose and cord C-peptide
- traditional diagnostic criteria for GDM are based on HAPO blood glucose parameters.

Question 2

Under the new proposed recommendations for GDM, which of the following statements is most accurate:

- all pregnant women should have an oral glucose tolerance test (OGTT) at 20–24 weeks
- fasting blood glucose is the screening test of choice for women at low risk of GDM
- glucose challenge testing is now recommended at 16–20 weeks gestation
- HbA1c is the ideal test for women with

- past GDM, though not currently Medicare-funded
- universal testing for hyperglycaemia at the first pregnancy visit should be encouraged.

Question 3

Which of the following statements regarding management of GDM is CORRECT:

- findings from a large prospective study suggest sitagliptin is safe during pregnancy
- research has defined optimal fasting blood glucose as < 5.0 mmol/L in women with GDM
- research regarding long-term effects of metformin during pregnancy are reassuring to date
- studies have found hypoglycaemic events to be reasonably common in insulin-treated GDM
- the safety profile of insulin aspart has not yet been established in pregnancy.

Question 4

Regarding postpartum management of GDM, which of the following is CORRECT:

- breastfeeding is associated with a weight advantage for mothers who have had GDM
- breastfeeding is good for immunity, but infant weight advantages are not established
- OGTT should be performed at 16–20 weeks postpartum according to new guidelines
- OGTT should be performed every 3–5 years due to increased risk of type 2 diabetes mellitus (T2DM)
- women with GDM have a 25% risk of developing T2DM within 20 years.

CASE 2

Sam Hartford

Sam, 38 years of age, has a BMI of 36 and wishes to seek advice regarding intensive dietary interventions.

Question 5

Regarding very low energy diets (VLEDs), which of the following statements is most accurate:

- VLEDs are indicated when BMI > 35 or when BMI > 30 in the presence of obesity related comorbidities
- VLEDs have been shown to induce rapid weight loss, with average weight losses of 5–10%
- VLEDs involve high protein and low carbohydrate intake which induces mild ketosis
- VLEDs involve less than 1 200 kcal/day, but unfortunately do not improve blood pressure
- weekly medical supervision is recommended throughout the duration of VLEDs.

Question 6

What is the recommended duration of VLEDs for the majority of patients with obesity:

- 2–4 weeks
- 5–6 weeks
- 8–12 weeks
- 14–16 weeks
- At least 6 months duration.

Question 7

Regarding VLEDs, which of the following is a known contraindication:

- abnormal liver function
- BMI > 35
- impaired renal function
- T2DM
- unstable angina.

Question 8

Which of the following is the most common adverse reaction to VLEDs:

- A. gallstones
- B. gout
- C. sodium imbalance
- D. temporary hair loss
- E. temporary liver enzymes changes.

CASE 3**Joel Ellison**

Joel, 42 years of age, has struggled for years with a BMI of 31.

Question 9

Joel asks about phentermine and orlistat, after reading about these on the internet. Regarding pharmacotherapy for the treatment of obesity, which of the following is CORRECT:

- A. common reactions to phentermine include facial oedema and micturition disturbance
- B. orlistat has been associated with the development of kidney stones in rare cases
- C. phentermine is approved for periods of up to 16 weeks for patients with BMI > 35
- D. studies show an average weight loss of 5% body weight associated with phentermine
- E. studies demonstrate an average weight loss of 10–12 kg associated with orlistat.

Question 10

Joel also wishes to ask about bariatric surgery. Regarding bariatric surgery, which of the following is CORRECT:

- A. laparoscopic adjustable gastric banding is associated with 10–15% mean weight loss
- B. laparoscopic adjustable gastric banding is associated with around 15% morbidity at one year
- C. previous gastric surgery and Crohn disease are contraindications for bariatric surgery
- D. Roux-en-Y gastric bypass usually results in gradual weight loss which is maximal at 2–3 years
- E. the long term safety of Roux-en-Y gastric bypass and sleeve gastrectomy is established.

Question 11

Joel is struggling to make a decision about how to approach his weight issues and describes himself as 'stressed'. Which of the

following is a stage of the stress response described by Hans Selye:

- A. arousal
- B. cognitive bias
- C. exhaustion
- D. expectation
- E. nocebo.

Question 12

Which of the following features of a situation would be LEAST likely to cause a person stress:

- A. it is a new type of situation for the person
- B. the person feels no sense of control of the situation
- C. the person is confident, but not capable, of managing the situation
- D. the situation faced poses threats to the sense of self of the person
- E. the situation is an unpredictable situation for the person.

CASE 4**Ailsa Bruce**

Ailsa, 58 years of age, attends for a check up as her brother has been diagnosed with metabolic syndrome (MetSy).

Question 13

Which of the following is one of the criteria for clinical diagnosis of MetSy:

- A. elevated systolic blood pressure >140 mmHg or elevated diastolic blood pressure >90 mmHg
- B. elevated triglyceride levels >2.0 mmol/L in women
- C. elevated waist circumference of >88 cm in Central American women
- D. elevated waist circumference of >98 cm in Asian men
- E. reduced HDL of < 1.0 mmol/L in men and 1.3 mmol/L in women.

Question 14

Regarding management of MetSy, which of the following is CORRECT:

- A. bariatric surgery is effective for weight loss, but has not been shown to affect MetSy
- B. long term use of antidepressants is associated with increased risk of MetSy
- C. NHMRC new obesity guidelines recommend a 1 000 kilojoule daily energy deficit
- D. NHMRC new obesity guidelines suggest 3–5% realistic target weight loss for MetSy

E. studies have shown metformin is equal or superior to lifestyle interventions for MetSy.

Question 15

Regarding the prognosis of patient with MetSy compared to patients without MetSy, which of the following is CORRECT:

- A. there is a 2–3 times increased overall mortality in patients with MetSy
- B. there is a 1.5 times increased risk of cerebrovascular disease in patients with MetSy
- C. there is a 1.5 times increased risk of chronic renal disease in patients with MetSy
- D. there is a 2–3 times increased risk of chronic liver disease in patients with MetSy
- E. there is a 2–3 times increased risk of diabetes mellitus in patients with MetSy.

Question 16

Which of the following is TRUE about MetSy?

- A. a glucose tolerance test is required to diagnose MetSy
- B. it is more common in more social people who are regularly out and eat meals with friends
- C. people with MetSy are more likely to believe they are in control of things that affect their life
- D. the risk of developing MetSy can be decreased by increasing physical activity
- E. waist circumference is regularly recorded when patients attend general practice as part of screening for MetSy.