

SELF-ASSESSMENT QUESTIONNAIRE

Endocrinology

■ Ten self-assessment questions (SAQs) based on the published articles will appear at the end of each CME specialty featured in *Clinical Medicine*. The questions have been validated for the purpose of CME by independent experts. Two (2) CME credits will be awarded to those achieving 80% correct answers. This opportunity is open only to RCP Fellows and Collegiate Members in the UK who are registered for CME*.

■ A loose leaf answer sheet is enclosed, which will be marked electronically at the Royal College of Physicians. **Answer sheets must be returned by 21 March 2003** to:

CME Department (SAQs), Royal College of Physicians,
11 St Andrews Place, London NW1 4LE.

Overseas members only can fax their answers to 020 7487 4156

Correct answers will be published in the next issue of *Clinical Medicine*.

*Further details on CME are available from the CME department at the Royal College of Physicians (address above or telephone 020 7935 1174 extension 306 or 309).

Guidelines on completing the answer sheet

Your completed answer sheet will be scanned to enable a quick and accurate analysis of results. To aid this process, please keep the following in mind:

- 1 Please print your GMC Number firmly and neatly
- 2 Only write in allocated areas on the form
- 3 Only use pens with black or dark blue ink
- 4 For optimum accuracy, ensure printed numbers avoid contact with box edges
- 5 Please shade circles like this: ● Not like this: ☑
- 6 Please mark any mistakes made like this: ✕
- 7 Please do not mark any of the black squares on the corners of each page
- 8 Please fill in your full name and address on the back of the answer sheet in the space provided; this will be used to mail the form back to you after marking.

- 1 **A 50-year-old woman seeks weight loss advice. She has hypertension (blood pressure 150/95 mmHg) and is taking fluoxetine for depression. She has a past history of severe depression and reports that she has gained 12 kg over the past three years and now weighs 92 kg, body mass index (BMI) 33.**
 - (a) She has a low risk of medical complications from her obesity and does not require medical treatment
 - (b) She should be treated with sibutramine in order to achieve early weight loss, with a target weight loss of 15 kg within six months
 - (c) She should consider a lifestyle intervention programme as a first step
 - (d) She should be offered a bariatric surgical procedure
 - (e) She needs psychiatric counselling
- 2 **A 37-year-old man with a BMI of 29 seeks advice. There is a strong family history of ischaemic heart disease. He has a total cholesterol of 6.2 mmol/l, and a high-density lipoprotein cholesterol of 0.9 mmol/l. He has an office job and takes little activity. His waist circumference is 112 cm.**
 - (a) He is only overweight, and weight loss will not improve his health
 - (b) He needs to be physically more active and should start at once by joining a gym for a high density workout each week
 - (c) Orlistat would be a logical drug to add into his treatment if he loses only 2–3 kg with dietary advice
 - (d) He must reduce his dietary intake to 1,000 kcal (4.2 MJ)/day and avoid all dairy produce to help lower his cholesterol
 - (e) There is no point in treating his dyslipidaemia until he has lost weight
- 3 **An elderly woman who has had a goitre for several years is referred to the clinic because of a history of weight loss,**

palpitation and anxiety. Recent thyroid function tests have revealed a high normal free thyroxine (T₄) concentration (19.0 pmol/l) (normal 10–20 pmol/l) and an undetectable serum thyrotrophin (TSH) (<0.01 mU/l).

- (a) Measurement of serum free triiodothyronine (T₃) is required to diagnose or exclude overt hyperthyroidism
- (b) The finding of atrial fibrillation on examination and ECG should prompt consideration of anticoagulation
- (c) Prescription of carbimazole should prompt regular checking of white blood cell count
- (d) Thyroidectomy represents the first-line treatment of choice
- (e) The patient should be treated with Lugol's iodine pre-operatively

4 A middle-aged man with a history of ischaemic disease has been taking amiodarone for two years. He has reported increasing palpitation and his general practitioner has found serum free T₄ to be raised (26 pmol/l).

- (a) The patient has definite amiodarone-induced thyrotoxicosis
- (b) The patient should be treated with radioiodine
- (c) It is important that the amiodarone is stopped promptly
- (d) The free T₄ result may reflect an effect of the drug on conversion of T₄ to T₃
- (e) Measurement of serum free T₃ and TSH is important in defining the presence or absence of thyroid dysfunction in this case

5 A 70-year-old man with a previous history of generalised seizures, presents to accident and emergency with headache and visual disturbance. Computed tomography imaging reveals a sellar and suprasellar lesion abutting the optic chiasm. He undergoes surgery, with a histological diagnosis of

meningioma, and postoperative radiotherapy. Routine endocrine assessment reveals serum free thyroxine (T₄) 18 pmol/l (normal range (NR) 10–22 pmol/l), 09.00 serum cortisol 650 nmol/l (NR 200–700 nmol/l), serum testosterone 10.9 nmol/l (NR 9–35 nmol/l), growth hormone (GH) 1.2 mU/l and serum insulin-like growth factor (IGF)-1 142 ng/ml (NR 108–220 ng/ml).

- (a) The data demonstrate that he does not have growth hormone deficiency (GHD)
- (b) The investigation of choice to look at GH status in this patient is an insulin tolerance test (ITT)
- (c) Further questions should be asked about his general well-being, mood and levels of anxiety and social interaction
- (d) If he is not GHD now, he can be reassured that he will not become so in the future
- (e) GH declines with age, and therefore he does not qualify for GH replacement

6 A 60-year-old man has recently commenced GH replacement for confirmed GHD with symptoms. He comes for review after 12 weeks. He has been feeling generally well but has joint discomfort especially in his hands. He has not noticed any definite subjective improvement since commencing GH and remains easily fatigued.

- (a) The arthralgia is unrelated to his GH replacement and he can be reassured
- (b) Serum IGF-1 should be checked against age-related data
- (c) Injection technique should be reassessed
- (d) A reduction in the dose of GH is likely to provide relief from his symptoms
- (e) Lack of subjective improvement excludes GHD as the cause of his initial symptoms

7 A previously fit 55-year-old woman is found to have a plasma calcium of 2.82 mmol/l

on a routine medical screen. Subsequent investigation reveals normal renal function, 24-hour urinary calcium of 6.8 mmol and parathyroid hormone of 55 pg/ml (normal 10–60 pg/ml). Bone density in the lumbar spine is Z = -0.5, T = -1.4.

- (a) Primary hyperparathyroidism would be excluded by a negative sestamibi scan
- (b) If hyperparathyroidism is confirmed, she should be urged to accept parathyroidectomy
- (c) Hormone replacement therapy is contraindicated
- (d) Parathyroidectomy will lead to improved bone mass
- (e) Her family should be screened for hypercalcaemia

8 A 68-year-old woman is admitted with a short history of vomiting and confusion. She has reduced tissue turgor and blood pressure of 104/68 mmHg supine and 96/64 mmHg sitting. Her plasma calcium is 3.85 mmol/l with creatinine of 450 µmol/l.

- (a) The plasma calcium should be re-measured without venous stasis
- (b) Initial rehydration should be gentle to avoid fluid overload
- (c) Sufficient frusemide should be given to ensure a urine flow of 100 ml/hour
- (d) Bisphosphonates should be withheld until she is rehydrated
- (e) If she does not respond to bisphosphonates, corticosteroid therapy might reduce the calcium level

9 A 24-year-old man presents to hospital after a fall from a ladder. Computed tomography scan of brain shows left subdural haematoma. Two days later he develops diminished consciousness. Examination shows no neurological signs, pulse 84/min, blood pressure (BP) 122/80 mmHg and GCS 13/15. Routine bloods show plasma sodium 118 mmol/l, plasma potassium 4.1 mmol/l,

blood urea 2.1 mmol/l, serum creatinine 62 µmol/l. Which of the following are true:

- (a) A urinary sodium concentration of 83 mmol/l makes unlikely the diagnosis of syndrome of inappropriate secretion of antidiuretic hormone (SIADH)
- (b) Demonstration of elevated plasma vasopressin is necessary to clinch the diagnosis of SIADH
- (c) There is a risk of seizures at this plasma sodium concentration
- (d) Intravenous saline is contraindicated
- (e) Demeclocycline may be useful in chronic hyponatraemia

- 10 A 16-year-old boy presents with polyuria, polydipsia, weight gain and headaches.

Investigations show blood glucose 4.1 mmol/l, plasma calcium 2.43 mmol/l, plasma sodium 148 mmol/l, plasma potassium 4.0 mmol/l, blood urea 6.1 mmol/l, serum prolactin 860 mU/l (reference range 50-300 mU/l), urine osmolality 122 mOsm/kg. Magnetic resonance imaging shows a large suprasellar tumour with calcification and cystic areas.

- (a) The likely diagnosis is a prolactinoma
- (b) The patient has DI
- (c) Measurement of plasma vasopressin is needed to make the diagnosis of DI in this case
- (d) Treatment of choice is oral desmopressin
- (e) Desmopressin therapy may be complicated by hyponatraemia due to water retention

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We regret that because of ambiguities in some of the questions, 2b, 3b, 3d, 4c, 6b, 8d, 8e, 9a, 10a and 10c have been excluded from this assessment. Your scores therefore, have been derived from the remaining 40 possible answers. We apologise for this lapse in quality control.

CME Psychiatry SAQs

Answers to the CME SAQs published in *Clinical Medicine* November/December 2002

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
a) F	a) F	a) F	a) T	a) F	a) T	a) T	a) F	a) T	a) F
b) T	b) T	b) T	b) F	b) T	b) F	b) F	b) T	b) F	b) T
c) T	c) T	c) F	c) T	c) T	c) F	c) T	c) T	c) T	c) T
d) T	d) T	d) T	d) F	d) F	d) F	d) F	d) F	d) T	d) F
e) T	e) T	e) F	e) T	e) F	e) F	e) F	e) T	e) F	e) T

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