CME Diabetes SAQs (91577): self-assessment questionnaire

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SAQs and answers are ONLINE for RCP fellows and collegiate members

The SAQs printed in the CME section can only be answered online to achieve external CPD credits. Any comments should be sent in via email only: clinicalmedicine@rcplondon.ac.uk

Format

SAQs follow a best of five format in line with the MRCP(UK) Part 1 exam. Candidates are asked to choose the best answer from five possible answers.

The answering process

1. **Go to www.rcplondon.ac.uk/SAQ**
2. **Log on using your usual RCP username and password**
3. **Select the relevant CME question paper**
4. **Answer all 10 questions by selecting the best answer from the options provided**
5. **Once you have answered all the questions, click on Submit**

Registering your external CPD credits

Carrying out this activity allows you to claim two external CPD credits. These will be automatically transferred to your CPD diary, where you can review the activity and claim your points.

1 A 33-year-old man without a previous diagnosis of diabetes presented with diabetic ketoacidosis. Other than a high BMI of 34, he is previously well. He is not sure about any family history of diabetes.

At this stage, what is the most useful diagnostic test?

(a) HbA1c
(b) fructosamine
(c) anti-GAD and anti-islet cell antibodies
(d) zinc T8 antibodies
(e) urinary C-peptide : creatinine ratio

2 A 30-year-old woman with type 2 diabetes attends the fertility clinic and is found to have a bicornate uterus. Abdominal ultrasound also uncovers renal cystic disease. She is diagnosed with HNF1-beta monogenic diabetes.

Relevant investigations to further assess her include which of the following?

(a) faecal elastase
(b) liver function tests
(c) serum magnesium
(d) serum urate
(e) all of the above

3 A 45-year-old woman with type 1 diabetes has sub-optimal glycaemic control, HbA1c 11.4%. She is awaiting gallstone surgery but the surgical team have delayed operating until her diabetes has improved. She is on a twice-daily mixed insulin regime and has been poorly adherent to her insulin therapy due to concerns over weight gain (her BMI is 36).

What would be the best treatment strategy?

(a) change her insulin to a basal bolus (four injections per day) regime
(b) commence U500, concentrated insulin therapy
(c) add in a GLP-1 agonist
(d) ask her to complete a food diary and refer for review with a dietician
(e) diabetes psychological assessment

4 A young female is screened for gestational diabetes when she is 28 weeks pregnant with an oral glucose tolerance test (OGTT). Her baseline glucose value is 6.2 mmol, rising to 7.8 at 120 minutes. She also has a strong family history of diabetes.

Practically, what would you do next?

(a) start her on metformin therapy
(b) commence basal insulin to control fasting blood glucose levels
(c) suspect a diagnosis of GCK-MODY and obtain consent for genetic testing
(d) review her capillary blood glucose profile
(e) commence a low glycaemic index diet

5 A 29-year-old healthcare professional with type 1 diabetes is 25 weeks pregnant during her first pregnancy. She has very tight overall glycaemic control with a pre-pregnancy HbA1c of 5.9%. She is found unconscious in her car by her partner on the drive of their house.

Which of the following are risk factors for severe hypoglycaemia in pregnancy?

(a) short duration of diabetes
(b) impaired hypoglycaemia awareness
(c) stable blood glucose levels
(d) low carbohydrate diet
(e) twin pregnancy

6 A 47-year-old obese man with type 2 diabetes (HbA1c 10.5%) wants to commence exercising as he wishes to take part in a triathlon tournament.

Which of the following metabolic parameters are unlikely to improve as a consequence of regular training?

(a) blood glucose profile
(b) lipid profile
(c) testosterone
(d) first phase insulin response
(e) blood pressure

7 A 21-year-old girl with type 1 diabetes since the age of 4 years old is admitted to hospital with diabetic ketosis and hyperosmolar symptoms. She has a BMI of 18 and tells you that she is normally on a basal bolus insulin regime. Her HbA1c is 9.0%; in addition she has proteinuria, secondary amenorrhoea and known proliferative diabetic retinopathy.

Which of the following is a likely diagnosis?

(a) Addison's disease
(b) coeliac disease
(c) Sheehan's syndrome
(d) disordered eating behaviour
(e) anorexia nervosa

8 A premier league football player who is 25 years old and has type 1 diabetes attends your clinic. He is keen to improve his glycaemic control and maintain a high level of physical fitness. He has very erratic blood glucose readings and recently collapsed during a football match due to a presumed hypoglycaemic episode.

Which of the following should be considered?

(a) discontinuing insulin and using oral hypoglycaemic medication
(b) increasing all of his insulin doses on match or training days by 10%
(c) commencing a period of continuous blood glucose monitoring to further elucidate the pattern of his glucose readings and the effects of exercise
(d) asking about narcotic usage
(e) instituting a high glycaemic index diet

9 A 49-year-old man with ischaemic heart disease, hyperlipidaemia and known HIV presents to A&E with an acute coronary syndrome. He is found to have a high random glucose level and is diagnosed with diabetes. He has a family history of diabetes.

Which of the following medications are likely to be *contributing*?

(a) ritonavir
(b) simvastatin
(c) ramipril
(d) efavirenz
(e) aspirin

10 A 75-year-old man attends the geriatric HIV clinic. He is on highly active anti-retroviral therapy (HAART). He has been feeling unwell with polyuria and polydipsia and is diagnosed with HIV-related diabetes mellitus. The plan is to commence him on metformin monotherapy initially.

Before prescribing metformin, which of the following biochemical investigations are important to check?

(a) venous lactate
(b) renal function/eGFR
(c) triglyceride status
(d) serum ammonia
(e) pro-BNP