Endocrinology and Diabetes (Specialty Certificate Examination)

1. An 18-year-old woman presented with a 2-month history of polyuria and polydipsia. She

A. autoimmune (lymphocytic) hypophysitis

B. Rathke's cleft cyst

C. psychogenic polydipsia

D. non-functioning pituitary adenoma

E. craniopharyngioma

Answer(s): A

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2. A 17-year-old Caucasian girl presented with primary amenorrhea.

A. adrenocortical carcinoma

B. androgen-secreting ovarian tumour

C. polycystic ovary syndrome

D. complete androgen insensitivity syndrome

E. ovarian hyperthecosis

Answer(s): D

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3. A 15-year-old boy with a 10-year history of type 1 diabetes mellitus was referred to the adolescent diabetes clinic from the paediatric clinic. Diabetes control had always been satisfactory and his recent haemoglobin A1c concentration was 67 mmol/mol (20-42). He felt

generally well, although on a growth chart his weight had fallen steadily from the 50th centile 18 months previously to the 10th centile, and his height had fallen from the 50th centile to the 25th centile. He had stage 4 genital development and stage 4 pubic hair, and testicular volume was 15 mL.

A. anti-tissue transglutaminase antibodies

B. insulin-like growth factor 1

C. short tetracosactide (Synacthen@) test

D. thyroid-stimulating hormone and free thyroxine

E. serum testosterone

Answer(s): A

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4. A 17-year-old girl presented with primary amenorrhoea. She had grown and developed normally. There was no history of galactorrhoea or hirsutism.

A. luteinising hormone-releasing hormone test

B. short tetracosactide (Synacthen@) test

C. serum insulin-like growth factor 1

D. karyotyping

E. serum prolactin

Answer(s): E

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5. A 50-year-old woman noticed some swelling of her right great toe and a painful right foot. She had type 1 diabetes mellitus of 21 years' duration and recent screening had revealed some mild diabetic retinal changes and peripheral neuropathy.

A. Charcot's foot

B. necrotising fasciitis

C. gout

D. osteoarthritis

E. osteomyelitis

Answer(s): E

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6. A 17-year-old boy had panhypopituitarism, including diabetes insipidus, following treatment for a craniopharyngioma. He was taking appropriate replacement therapy. In the transition clinic, he was keen to continue growth hormone replacement therapy following a 12-month break after reaching final height.

A. growth hormone day profile

B. insulin tolerance test

C. clonidine test

D. insulin-like growth factor 1

E. insulin-like growth factor-binding protein 3

Answer(s): D

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7. A 62-year-old woman was referred with difficulty in swallowing and a painful, swollen neck.

A. subacute thyroiditis

B. haemorrhage into a thyroid cyst

C. thyroid carcinoma

D. toxic adenoma

E. Graves' disease

Answer(s): A

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8. A 28-year-old man was seen in the lipid clinic following a referral from the general surgical team. He had had two episodes of acute pancreatitis over the preceding 6 months, which settled spontaneously. He had a past medical history of HIV disease and was taking highly active antiretroviral (HAART) therapy. He drank 12 units of alcohol per week.

A. non-nucleoside reverse transcriptase inhibitors (e.g. nevirapine)

B. integrase inhibitors (e.g. raltegravir)

C. nucleoside reverse transcriptase inhibitors (e.g. zidovudine)

D. entry inhibitors (e.g. enfuvirtide)

E. protease inhibitors (e.g. ritonavir)

Answer(s): E

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9. A 62-year-old man was referred from the infectious diseases clinic. He had HIV infection and was taking treatment that included thymidine analogue nucleoside reverse transcriptase inhibitors. He had developed considerable loss of limb and gluteal subcutaneous fat. He had complained recently of polyuria and polydipsia and was found to have a fasting plasma glucose of 8.3 mmol/L (3.0-6.0).

A. pioglitazone

B. exenatide

C. metformin

D. gliclazide

E. insulin

Answer(s): C

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10. A 46-year-old man of European descent was reviewed in the diabetes clinic. He had type 2 diabetes mellitus, which had been diagnosed 6 months previously. He had been symptom free and was a non-smoker but had a family history of cardiovascular disease. He exercised regularly and had managed to lose 8 kg.

A. start a fibrate

B. start nicotinic acid

C. assess cardiovascular risk using UKPDS risk engine

D. start a statin

E. observe and repeat lipid profile in a few months

Answer(s): D

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11. A 49-year-old woman presented with a mass in her neck that was causing no specific symptoms.

A. serum thyroglobulin

B. thyroid lobectomy for histological diagnosis

C. total thyroidectomy for histological diagnosis

D. repeat cytology for confirmation

E. reassure that the nodule is not malignant and discharge

Answer(s): B

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12. A 54-year-old man was referred to the diabetes foot clinic with a plantar foot ulcer of 3 months' duration under the right first metatarsal head. He had a 10-year history of type 2 diabetes mellitus. He lived alone and had to do his own shopping and cleaning.

A. ambulatory vacuum-assisted pump therapy

B. removable pressure-relieving boot

C. long-term oral antibiotics

D. total contact casting

E. Manuka honey-impregnated wound dressing

Answer(s): D

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13. A 23-year-old woman was found to have type 1 diabetes mellitus following a short history of polyuria, polydipsia and unintentional weight loss. She started taking insulin aspart before meals and insulin detemir daily.

A. 1 year

B. 10 years

C. immediately

D. 5 years

E. 2 years

Answer(s): D

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14. A 27-year-old woman presented with a 6-month history of amenorrhoea and low mood. She complained of headaches but no visual disturbance. Her past medical history included anorexia nervosa but her current weight was stable.

A. encourage weight gain and reassess after 2 months

B. start cabergoline 0.5 mg/week

C. ultrasound scan of ovaries

D. MR scan of pituitary

E. pregnancy test

Answer(s): D

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15. A 55-year-old woman presented with thirst, polyuria and polydipsia. Her symptoms had started 9 months previously following a road traffic accident. Her past medical history was normal and she was not taking any regular medication.

A. primary polydipsia

B. nephrogenic diabetes insipidus

C. diabetes mellitus

D. syndrome of inappropriate antidiuretic hormone

E. cranial diabetes insipidus

Answer(s): A

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16. A 24-year-old woman was referred with an 18-month history of worsening hirsutism, primarily on her face, but also new hair growth on her chest. She was shaving weekly. She had always been overweight, but had recently gained 5 kg and her body mass index was 31 kg/m2 (18-25). Her periods were regular.

A. plasma thyroid-stimulating hormone

B. serum dehydroepiandrosterone

C. serum 17-hydroxyprogesterone

D. serum testosterone

E. overnight dexamethasone suppression test (after 1 mg dexamethasone)

Answer(s): D

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17. A 29-year-old woman presented with primary infertility, having had unprotected sexual intercourse for 15 months. Menarche had occurred at the age of 13.5 years. Her menstrual cycle was irregular, occurring every 20-60 days. There was no history of galactorrhoea. She denied abnormal hair growth.

A. human menopausal gonadotropins

B. cabergoline

C. human chorionic gonadotropin

D. metformin

E. orlistat

Answer(s): D

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18. A 32-year-old man presented to the fertility clinic with his partner. The couple had been together for 4 years and had been trying to conceive for the past 3 years. His partner had children from a previous marriage.

A. human chorionic gonadotropin

B. testosterone

C. intracytoplasmic sperm injection

D. pulsatile gonadotropin-releasing hormone

E. artificial insemination by donor

Answer(s): E

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19. A 26-year-old woman was urgently referred to clinic with a 6-week history of retroorbital headaches and deteriorating vision. Her past medical history was unremarkable, although on questioning she admitted that she had recently found it increasingly difficult to cope with her busy job.

A. prolactinoma

B. autoimmune hypophysitis

C. Rathke's cleft cyst

D. non-functioning pituitary adenoma

E. craniopharyngioma

Answer(s): E

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20. A 46-year-old Afro-Caribbean man with sarcoidosis was found to have hypercalcaemia and was treated with prednisolone 20 mg/day. Within 3 weeks his serum calcium had fallen to within the reference range.

A. direct calcium shift into cells

B. promote urinary calcium excretion

C. suppress parathyroid hormone secretion

D. reduces extrarenal 1-?-hydroxylase activity

E. increase intravascular fluid volume

Answer(s): D