**Endocrinology examination quiz**

1. What HBA1C level are diabetes patients recommended to aim for?

|  |  |
| --- | --- |
| A | <12% |
| B | <10% |
| C | <15% |
| D | <7.0% |

1. Which of the following are symptoms of addison's disease?

|  |  |
| --- | --- |
| A | Hyperpigmentation |
| B | Weight gain |
| C | Moon face |
| D | Striae |
| E | Diplopia |
| F | Postural hypotension |
| G | Weight loss |
| H | Fatigue |

1. Which of the following are common symptoms of hypothyroidism?

|  |  |
| --- | --- |
| A | Hair loss |
| B | Oily skin |
| C | Weight loss |
| D | Excessive hair growth |
| E | Decreased tendon reflexes |
| F | Dry skin |
| G | Weight gain |

1. Which of the following are not signs of cushings syndrome?

|  |  |
| --- | --- |
| A | Moon face |
| B | Prominent supraorbital ridge |
| C | Central obestiy with relative sparing of limbs |
| D | Buffalo hump |
| E | Proximal muscle weakness |
| F | Reduced visual fields |

1. Which of the following are common symptoms of hyperthyroidism?

|  |  |
| --- | --- |
| A | Weight gain |
| B | Heat intolerance |
| C | Urinary frequency |
| D | Diarrhoea |
| E | Weight loss |
| F | Tremor |

1. Which of the following causes of Hyperthyroidism is the most common?

|  |  |
| --- | --- |
| A | Toxic Thyroid Adenoma |
| B | Toxic Multi-nodular Goitre |
| C | Graves disease |
| D | Thyroiditis |

1. Which of the following investigations is the gold standard for diagnosing acromegaly?

|  |  |
| --- | --- |
| A | Oral Glucose Tolerance Test + Growth Hormone measurement |
| B | Growth Hormone measurement |
| C | Growth Hormone Releasing Hormone Measurement |
| D | Serum IGF1 Measurement |

1. Which one of the following statements describes the underlying pathology of Grave's disease?

|  |  |
| --- | --- |
| A | An autoimmune disease directed against Thyroid Stimulating Hormone (TSH) receptors. The autoantibodies stimulate the TSH receptors causing ↑ T3 & T4 production. |
| B | Consumption of ground beef which has been contaminated with thyroid tissue. The thyroid tissue contains metabolically active thyroid hormones which causes the hyperthyroidism |
| C | Inflammation of the thyroid gland due to infections or lymphocytic infiltration causes the stored thyroid hormones to all be released into the circulation leading to hyperthyroidism and usually thyrotoxicosis |
| D | A benign tumour of the thyroid gland which produces excessive amounts of thyroid hormones |

1. Which of the following are functions of cortisol?

|  |  |
| --- | --- |
| A | Suppress immune function |
| B | Stimulation of gluconeogenesis |
| C | Decrease blood glucose levels |
| D | Improve immune function |
| E | Increase blood glucose levels |

1. Which of the following are symptoms of Type 1 Diabetes?

|  |  |
| --- | --- |
| A | Decreased urination |
| B | Polyuria |
| C | Weight loss |
| D | Decreased thirst |
| E | Widespread erythematous rash |
| F | Polydipsia |

1. Which of the following drugs does NICE recommend as first line therapy for overweight patients with type 2 diabetes?

|  |  |
| --- | --- |
| A | Exenatide |
| B | Rosiglitazone |
| C | Metformin |
| D | Gliclazide |

1. What is the current treatment of choice for acromegaly in otherwise healthy patients?

|  |  |
| --- | --- |
| A | Somatostatin analogues |
| B | Watchful waiting |
| C | Trans-sphenoidal surgery |
| D | Growth Hormone Receptor Antagonists |

1. Which of the following statements best describes the pathology of type 2 diabetes?

|  |  |
| --- | --- |
| A | Occurs due to autoimmune destruction of the insulin producing pancreatic beta cells. The loss of insulin producing cells leads to insulin deficiency which in turn causes hyperglycaemia |
| B | A disorder of metabolism characterised by high levels of glucose in the blood as a result of insulin resistance and insulin deficiency |

1. Which 1 of the following hormones binds to the pituitary and stimulates the release of Luteinizing Hormone (LH) & Follicle Stimulating Hormone (FSH)?

|  |  |
| --- | --- |
| A | Corticotrophic Releasing Hormone (CRH) |
| B | Adrenocorticotrophic Hormone (ACTH) |
| C | Gonadotrophin Releasing Hormone (GnRH) |

1. Which of the following statements correctly describes the pathology of type 1 diabetes?

|  |  |
| --- | --- |
| A | Occurs due to autoimmune destruction of the insulin producing pancreatic beta cells. The loss of insulin producing cells leads to insulin deficiency which in turn causes hyperglycaemia. |
| B | Disorder of metabolism characterised by high levels of glucose in the blood as a result of insulin resistance and insulin deficiency |

1. Which of the following are clinical features of diabetic ketoacidosis?

|  |  |
| --- | --- |
| A | Severe hypokalaemia |
| B | Coma |
| C | Severe hypoglycaemia |
| D | Severe hyperglycaemia |
| E | Kussmaul respiration (deep gasping breaths) |
| F | Cerebral oedema |
| G | Breath smells of pear drops |
| H | Severe abdominal pain |

1. Which of the following are signs of acromegaly?

|  |  |
| --- | --- |
| A | Enlargement of tongue (macroglossia) |
| B | Increased jaw prominence |
| C | Enlargement of feet |
| D | Decrease in tongue size (microglossia) |
| E | Enlargement of hands & fingers |
| F | Prominent supraorbital ridge |
| G | Oily skin |
| H | Crowded teeth |
| I | Visual field defects e.g. Bi-temporal Heminopia |
| J | Decrease in foot size |

1. Which one of the following statements best describes an addisonian crisis?

|  |  |
| --- | --- |
| A | Dangerously high serum cortisol levels |
| B | Severe adrenal insufficiency resulting in dangerously low serum testosterone levels |
| C | Dangerously high levels of testosterone |
| D | Severe adrenal insufficiency resulting in dangerously low serum cortisol levels |

1. Which of the following hormones are produced by the adrenal cortex?

|  |  |
| --- | --- |
| A | Norepinephrine (Noradrenaline) |
| B | Aldosterone |
| C | Cortisol |
| D | Epinephrine (Adrenaline) |
| E | 5-DHEA |

1. Which is a more sensitive measure of thyroid function?

|  |  |
| --- | --- |
| A | Thyroid Stimulating Hormone (TSH) |
| B | Free T3 |
| C | Free T4 |

1. Which of the following statements describes Hashimoto's thyroiditis?

|  |  |
| --- | --- |
| A | It is a destructive autoimmune disease that is especially common in middle aged women. The disease is caused by auto-reactive antibodies against thyroglobulin & other targets |
| B | Inflammation of the thyroid gland as the result of a virus The disease is often preceded by a upper respiratory tract infection |
| C | Occurs as the result of iodine deficiency |

1. What is Addison's disease?

|  |  |
| --- | --- |
| A | Addison's disease involves the overproduction of cortisol and aldosterone by the adrenal cortex |
| B | Addison's disease involves the underproduction of androgens by the adrenal medulla |
| C | Addison's disease involves the overproduction of androgens by the adrenal medulla |
| D | Addison's disease involves the underproduction of cortisol and aldosterone by the adrenal cortex |

1. Which of the following statements best describes the mechanism of action of Thiazolidinediones such as Rosiglitazone?

|  |  |
| --- | --- |
| A | It increases insulin sensitivity, allowing endogenous insulin to better do it’s job. It also decreases hepatic gluconeogenesis whilst increasing muscle glucose uptake |
| B | The drug binds to PPAR’s (peroxisome proliferator-activated receptors). When PPAR’s are activated they cause transcription of a number of genes. These activated genes ultimately result in decreased insulin resistance |
| C | It works by binding to pancreatic beta cells & causing increased release of insulin |

1. Which of the following are commonly used in the treatment of diabetic ketoacidosis?

|  |  |
| --- | --- |
| A | Atenolol |
| B | Hydrocortison |
| C | Bicarbonate |
| D | Saline |
| E | Insulin |
| F | Activated charcoal |
| G | Potassium |

1. What is the most common cause for the overproduction of growth hormone in acromegaly?

|  |  |
| --- | --- |
| A | Pituitary adenoma |
| B | Hypothalamic lesion |
| C | Hyperplasia of the pituitary stalk |
| D | Pituitary lesion |