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

A. <12 %

B. <10 %

C. <15 %

D. <7.0 %

Answer: D

2. 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

Answer: A, F, G, H

3. 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

Answer: A, E

4. Which of the following is the most common cause for Cushings syndrome?

A. Adrenal gland adenoma

B. Glucocorticoid treatment

C. Ectopic production of ACTH

D. Hypophysis adenoma

Answer: B

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

A. Weight gain

B. Heat intolerance

C. Urinary frequency

D. Diarrhea

E. Weight loss

F. Tremor

Answer: B, D, E, F

6. 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

Answer: C

7. 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

Answer: A

8. 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. 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

C. A benign tumor of the thyroid gland, which produces excessive amounts of thyroid hormones

Answer: A

9. 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

Answer: A, B, E

10. 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

Answer: B, C, F

11. 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

Answer: C

12. 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

Answer: C

13. 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

Answer: B

14. Which one 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)

Answer: C

15. 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 hyperglycemia.

B. Disorder of metabolism characterised by high levels of glucose in the blood as a result of insulin resistance and insulin deficiency

Answer: A

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

A. Severe hypokalemia

B. Coma

C. Severe hypoglycemia

D. Severe hyperglycaemia

E. Kussmaul respiration (deep gasping breaths)\*

F. Cerebral oedema

G. Breath smells of pear drops

H. Severe abdominal pain

Answer: A, B, D, E, F, G, H

17. 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. Visual field defects e.g. Bi-temporal Heminopia

Answer: A, B, C, E, F, G, H

18. 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

Answer: D

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

A. Norepinephrine (Noradrenaline)

B. Aldosterone

C. Cortisol

D. Epinephrine (Adrenaline)

E. 5-DHEA

Answer: B, C, E

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

A. Thyroid Stimulating Hormone (TSH)

B. Free T3

C. Free T4

Answer: A

21. 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

Answer: A

22. 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

Answer: D

23. 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

Answer: B

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

A. Atenolol

B. Hydrocortison

C. Bicarbonate

D. Saline

E. Insulin

H. Activated charcoal

G. Potassium

Answer: D, E, G

25. 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

Answer: A