

1 Substances known to cause SIADH include

- A. Tri-cyclic antidepressants
- B. Carbamazepine
- C. Demeclocycline
- D. Lithium

2 When considering a Bier's block for regional anaesthesia

- A. Raynaud's syndrome is a contraindication
- B. It is commonly used in children
- C. An appropriate local anaesthetic dose for most adults is 40mL of 1% plain prilocaine
- D. Requires the presence of at least two members of trained staff

3 Regarding ketamine for use for sedation and analgesia

- A. It has analgesic, hypnotic and amnesic properties
- B. 500mg is an appropriate oral dose for adults
- C. It may precipitate hallucinations
- D. Ketamine crosses the placenta

4 Regarding *P.falciparum* malaria

- A. The incubation period is usually 7-14 days
- B. It is commonly the result of travel in the Indian subcontinent
- C. Lymphadenopathy is a common feature
- D. Chloroquine is the initial drug treatment of choice

5 When examining an arterial line waveform

- A. It can be used to estimate cardiac output
- B. The slope of the upstroke of the wave reflects myocardial contractility (dP/dt)
- C. A low dicrotic notch is seen in hypovolaemic patients
- D. A fast sloping diastolic decay indicates vasoconstriction

6 Regarding fracture classifications

- A. The Neer classification refers to distal radial fractures
- B. The Frykman classification refers to proximal humeral fractures
- C. The Schatzker classification refers to tibial plateau fractures
- D. Type II is the most common type of Salter-Harris fracture presentations

7 In the assessment of a limping child localising pain to the hip joint

- A. Slipped upper femoral epiphysis is most common in the 3-10 year old age group
- B. Perthes disease affects boys more often than girls at a ratio of 4:1
- C. Interruption of Shenton's line is suggestive of a slipped upper femoral epiphysis
- D. Radiographic appearances are usually normal in transient synovitis

8 Regarding bleeding disorders

- A. Von Willebrand's disease involves factor VIII deficiency with coagulant activity and abnormal platelet function
- B. Haemophilia B involves a deficiency of factor VIII activity
- C. The INR, APTT and fibrinogen levels are all raised in disseminated intravascular coagulation (DIC)
- D. Severe haemorrhage due to a high INR on warfarin therapy may be treated with Beriplex and vitamin K

9 Diabetes insipidus may be caused by

- A. Sheehan's syndrome
- B. Toxoplasmosis
- C. Lithium
- D. Wegener's granulomatosis

10 The following eponymous osteochondritis conditions are correctly matched to their respective bony sites

- A. Freiberg's disease.....Tibial tuberosity
- B. Köhler's disease.....Navicular
- C. Kienbock's disease.....Scaphoid
- D. Perthes' disease.....Femoral head

11 With regard to compartment syndrome

- A. It may occur as a result of excessive alcohol intake
- B. Loss of distal arterial pulsation is an early sign
- C. The absence of myoglobinuria rules out rhabdomyolysis
- D. Fasciotomy is indicated if the difference between intra-compartmental and diastolic blood pressure is <30mmHg

12 Acute gout

- A. Is associated with negatively birefringent crystals in joint aspirate
- B. Early radiological signs include punched out lesions in the periarticular bone
- C. Is treated with allopurinol and NSAIDs
- D. Most commonly affects the 1st MTP joint of the foot in men

13 In carbon monoxide (CO) poisoning

- A. Elimination half-life of CO is around 4 hours when breathing 100% oxygen
- B. COHb levels correlate well with clinical features
- C. 'Cherry-red' skin colouring is an uncommon finding in severe poisoning
- D. Hyperbaric oxygen therapy is contraindicated in pregnancy

14 The following infectious diseases usually have an incubation period of 1 – 3 weeks

- A. Diphtheria
- B. Mumps
- C. Hepatitis A
- D. Chickenpox

15 Acute iritis (acute uveitis)

- A. Is commonly relapsing
- B. Slit lamp examination may reveal hypopyon
- C. Talbot's test is positive when pain is increased in the affected eye by shining a light into the 'good' eye
- D. Reduced visual acuity, epiphoria and 'floaters' are common symptoms

16 Regarding traction apophysitis

- A. Osgood-Schlatter's disease is most commonly seen in boy aged over 15 years
- B. Johansson-Larsen's disease affects the calcaneal attachment of the Achilles tendon
- C. Most settle completely with rest and NSAIDs
- D. The pathophysiology relates to inflammation of a tendon attachment to a fused Apophysis

17 When obtaining intraosseous access

- A. The proximal tibial site is located 2.5cm below the tibial tuberosity on the flat anteromedial surface
- B. Contraindications for intraosseous access include osteopetrosis
- C. Negative aspiration on insertion indicates incorrect positioning of the needle
- D. Other insertion sites include the distal femur – 3cm above the medial lower femoral Condyle

18 Regarding needlestick injuries

- A. Possible transmissible infective agents include Diphtheria
- B. The risk of acquiring hepatitis B from a carrier is around 3-10%
- C. Transmission risk is increased with hollow needles more than with solid needles
- D. The risk of acquiring HIV from a carrier is related to the volume of injected material

19 Respiratory physiology

- A. In zone 2 of the lung blood flow is determined by the difference between arterial and alveolar pressures ($P_a > P_A > P_v$)
- B. Normal anatomical dead space in the adult is around 150mL
- C. The flow rate is high in relation to lung volume with flow-volume curves in obstructive pulmonary disease
- D. Bradykinin is unaffected by its passage through the pulmonary circulation

20 With regard to airway management in the emergency department

- A. An uncuffed size 5 (5mm internal diameter) endotracheal tube is appropriate for a 4- year-old male.
- B. A size 4 laryngeal mask airway cuff should be inflated with a 50mL volume of air following correct positioning
- C. The best head and neck position for direct laryngoscopy is extension of the neck with maximal flexion at the occipito-atlantal joint
- D. Sellick's manoeuvre is used to prevent aspiration when the patient is vomiting during attempted endotracheal intubation

21 Entonox

- A. Is a gas mixture of 50% nitrous oxide and 50% air
- B. Its use is associated with significant hypotension
- C. Is an appropriate method of analgesia soon after scuba diving
- D. Is unsuitable for use in very cold conditions (under -6°C)

22 The following clinical features are more suggestive of acute epiglottitis than croup

- A. Slow onset
- B. High fever $>38.5^{\circ}\text{C}$
- C. Increased drooling of saliva
- D. Age over 5 years

23 Regarding the Mental Health Act (England and Wales, 1983)

- A. Section 4 forms can be signed by any registered medical practitioner
- B. Emergency detention under Section 4 lasts for 48 hours
- C. Section 2 is used for emergency psychiatric assessment for a period of 28 days
- D. The mental health act applies in the emergency department

24 A prolonged QTc (rate corrected QT interval)

- A. Can result from Quinidine therapy
- B. Occurs during sleep
- C. May predispose to 'torsades de pointes'
- D. Is seen in digoxin toxicity

25 Ranson's severity criteria on admission for acute pancreatitis include

- A. Glucose <11.0 mmol/L
- B. LDH >350 IU/L
- C. Amylase >2500
- D. $\text{PaO}_2 < 8\text{kPa}$

26 Gelofusine 500mL contains

- A. The same amount of sodium per litre as 0.9% saline
- B. Has a pH of 7.4
- C. The average gelatine molecular weight is 60,000
- D. The osmolarity is 284 mOsm/L

27 Regarding renal physiology

- A. 80% of the blood plasma arriving at the nephron is filtered at the glomerulus
- B. Around two-thirds of the sodium contained in the glomerular filtrate is reabsorbed in the proximal tubule under normal conditions
- C. Plasma creatinine only starts to increase substantially when around 50% of renal function (GFR) has been lost
- D. Aminoglycosides are not excreted by the kidney

28 The standard childhood immunisation schedule includes

- A. DTP, polio and Hib at 2,3 and 4 months
- B. DTP booster at 2 years
- C. BCG at 10-14 years
- D. MMR at 12-15 months

29 Regarding the modified SAD PERSON score in assessing suicide risk

- A. A total score <8 indicates that it may be safe to discharge the patient
- B. A total score >8 probably requires hospital admission
- C. The age range that indicates an increased suicide risk is 19 - 45 years
- D. Excessive alcohol or drug use is one of the risk factors

30 Parathyroid hormone (PTH)

- A. Is an 84 amino acid peptide
- B. Reduces both calcium and phosphate reabsorption in the kidney
- C. Suppresses osteoclastic activity
- D. Decreases production of 1,25-dihydroxycholelcalciferol in the kidney