



Answers to Nextillo Quiz of the Month – June 2024

Q1. Anti-hypertensive drug causing dry cough?

- A. Lisinopril
- B. Propranolol
- C. Minoxidil
- D. Amlodipine

Ans 1. Correct answer is A. Lisinopril is an Angiotensin Converting Enzyme (ACE) inhibitor. This enzyme is responsible for converting Angiotensin I into Angiotensin II. At the same time, this enzyme breaks down bradykinin. The function of Angiotensin II is to cause vasoconstriction, cardiac remodeling, and aldosterone secretion from the adrenal cortex. Aldosterone is responsible for sodium retention and potassium excretion. Inhibiting the ACE enzyme decreases aldosterone, leading to potassium retention, and an increase in bradykinin causes dry cough.

Q2. A 28-week pregnant female presented to the emergency with sudden onset seizures. Her BP is 180/110. Which drug will you use to subside seizures?

- A. Midazolam
- B. Levetiracetam
- C. MgSO₄
- D. Lamotrigine

Ans 2. Correct answer is C. Magnesium sulfate acts as an anti-convulsant agent in patients with eclampsia. The mechanism involves blockade of NMDA receptors in the brain and vasodilation in the cerebral blood vessels. Vasodilation helps address cerebral ischemia. It is better than any other anti-convulsant, especially for eclampsia.

Q3. Which of the following drugs/treatments are used in the management of DKA except?

- A. Insulin
- B. Potassium
- C. Furosemide
- D. Dextrose

Ans 3. Correct answer is C. Patients with diabetic ketoacidosis have insulin deficiency and fluid depletion. They need fluids, electrolytes, and glucose correction, which requires dextrose at one point. Furosemide will worsen fluid and electrolyte imbalance.

Q4. Out of the mentioned leukemias, all are strongly associated with radiation exposure except?

- A. AML
- B. ALL
- C. CML
- D. CLL

Ans 4. Correct answer is D. CLL is least likely to be associated with radiation exposure. There is hardly any link between them.

Q5. Rapid correction of hyponatremia leads to which of the following complications?

- A. Cerebral Edema
- B. CPM
- C. Hypoglycemia
- D. Hypokalemia

Ans 5. Correct answer is B. Rapid correction of hyponatremia leads to central pontine myelinolysis. Loss of myelin in the neurons of the pons leads to locked-in syndrome. There is retention of consciousness, hearing, and vertical eye movement, and blinking.

Q6. Which of the following anti-thyroid drugs is used in the first trimester of pregnancy?

- A. Methimazole
- B. Carbimazole
- C. Propylthiouracil
- D. Iodine 131

Ans 6. Correct answer is C. Propylthiouracil is used in the first trimester of pregnancy to treat hyperthyroidism. Methimazole is associated with the risk of scalp defects while propylthiouracil does not have this risk.

Q7. Which of the following is not included in the DASH diet?

- A. Rich in Na
- B. Rich in K
- C. Rich in Ca
- D. Rich in Mg

Ans 7. Correct answer is A. The DASH diet – Dietary Approaches to Stop Hypertension – includes vegetables, fruits, low-fat dairy products, lean meat products, carbohydrates, and nuts & seeds. Each food is advised in limited quantities. This diet promotes balance and limits salt consumption.

Q8. Which of the following is implicated as the cause of office headache?

- A. Maxillary sinusitis
- B. Sphenoid sinusitis
- C. Frontal sinusitis
- D. Ethmoid sinusitis

Ans 8. Correct answer is C. Frontal sinusitis can present with pressure in the forehead without nasal symptoms.

Q9. Leukemia associated with DIC?

- A. CML
- B. APML
- C. AML M7
- D. ALL

Ans 9. Correct answer is B. The leukemic blasts in APML have tissue factor present on the surface, which activates the coagulation cascade.

Q10. Which of the following is NOT a cause of hypercalcemia?

- A. Tuberculosis
- B. Lymphoma
- C. Vitamin D intoxication
- D. Acute pancreatitis

Ans 10. Correct answer is D. Hypocalcemia is associated with acute pancreatitis. Pancreatic enzymes digest mesenteric fat that releases free fatty acids, which combine with calcium to form salts. It may also be due to transient hypoparathyroidism and hypomagnesemia.

Q11. Complete absence of dystrophin leads to?

- A. Becker Muscular Dystrophy
- B. Duchenne Muscular Dystrophy
- C. Myasthenia Gravis
- D. Lambert-Eaton Syndrome

Ans 11. Correct answer is B. Complete absence of the dystrophin gene or a non-functional gene leads to Duchenne Muscular Dystrophy. A partially functional gene leads to Becker Muscular Dystrophy.

Q12. All of the following can cause a cherry-red spot in the retina except?

- A. Tay-Sachs Disease
- B. Niemann-Pick Disease
- C. Central Retinal Artery Occlusion
- D. Central Retinal Vein Occlusion

Ans 12. Correct answer is D. Central Retinal Vein Occlusion leads to a "smashed tomato" appearance of the retina.

Q13. All of the following will cause upper motor neuron lesions except?

- A. Stroke
- B. GBS
- C. Pernicious Anemia
- D. Multiple Sclerosis

Ans 13. Correct answer is B. Guillain-Barre Syndrome involves demyelination of lower motor neurons responsible for motor weakness.

Q14. A 28-year-old female presents to OPD with a USG report suggesting a short cervix. It is defined as?

- A. Length <2.5cm
- B. Length >2.5cm
- C. Diameter <2.5cm
- D. Diameter >2.5cm

Ans 14. Short cervix is defined as cervical length ≤ 2.5 cm. It leads to an increased risk of pregnancy loss, preterm labor, and early delivery.

Q15. Serial monitoring of β -HCG is done in?

- A. Down Syndrome
- B. Neural tube defects
- C. Twin Pregnancy
- D. Molar Pregnancy

Ans 15. Correct answer is D. Molar pregnancy can turn into choriocarcinoma. Monitoring beta HCG helps screen patients for the carcinoma after molar pregnancy management since choriocarcinoma secretes the same hormone.

Q16. Cholesterol is synthesized from?

- A. Acetyl CoA
- B. Malonyl CoA
- C. Oxaloacetate
- D. Phenylalanine

Ans 16. Correct answer is A. Cholesterol is synthesized from Acetyl CoA. The rate-limiting enzyme for synthesis is HMG CoA reductase. Statins are inhibitors of this enzyme.

Q17. As per WHO, the minimum recommended antenatal visits should be?

- A. 4
- B. 8
- C. 12
- D. 16

Ans 17. Correct answer is B. As per WHO, the minimum number of antenatal visits is 8.

Q18. Which of the following causes hypernatremia?

- A. Diabetes Mellitus
- B. HCTZ
- C. Diabetes Insipidus
- D. Volume Overload

Ans 18. Correct answer is C. Diabetes Insipidus is a condition where the body is unable to conserve water due to either deficiency of ADH or inadequate response to ADH. Water loss leads to volume depletion. This can present as hypernatremia.

Q19. Which of the following is associated with thrombosis?

- A. Chlamydia Urethritis
- B. Aspirin poisoning
- C. HIT type 2
- D. Thiazide

Ans 19. Correct answer is C. HIT type 2 is due to antibodies against PF4. The antibodies recognize the PF4 and heparin complex, which then activates platelets, causing a hypercoagulable state and thrombocytopenia.

Q20. Type of inheritance seen in sickle cell anemia?

- A. AD
- B. AR
- C. XD
- D. XR

Ans 20. Correct answer is B. Sickle cell anemia is an autosomal recessive disorder. It is characterized by sickling of RBCs in response to stress, infection, dehydration, and hypoxia.

Q21. The most frequently encountered tumor of the anterior mediastinum is?

- A. Thymoma
- B. Lymphoma
- C. Neurogenic Tumors
- D. Fibroma

Ans 21. Correct answer is A. Anterior mediastinal masses include both neoplastic and non-neoplastic tumors. Thymoma is the most common anterior mediastinal tumor in adults.

Q22. Which of the following viruses is not associated with Hepatocellular CA?

- A. Hep A
- B. Hep B
- C. Hep C
- D. None of the above

Ans 22. Correct answer is A. Hepatitis A virus is responsible for acute viral hepatitis. It does not cause chronic hepatitis like Hep B and C. The risk for Hepatocellular CA does not exist for Hepatitis A virus. It can cause fulminant hepatic failure.

Q23. Patients with chronic granulomatous disease present with recurrent infections with bacteria which are?

- A. Catalase +ve
- B. Catalase -ve
- C. Reverse CAMP +ve
- D. ZN stain +ve

Ans 23. Correct answer is A. Patients with chronic granulomatous disease have a deficiency of NADPH oxidase. This enzyme is responsible for the generation of superoxide and the regulation of ionic content in phagosomes. Deficiency leads to an increased risk of infections by catalase-positive organisms.

Q24. Galactosemia is caused due to a deficiency of?

- A. Galactokinase
- B. UDP galactose 4 epimerase
- C. Galactose 1 phosphate uridyl transferase
- D. Aldose reductase

Ans 24. Correct answer is C. Neonates with classic galactosemia usually have a deficiency of galactose-1-phosphate uridyl transferase. This can lead to neonatal death if a lactose-free diet is not given.

Q25. Condyloma acuminata is most commonly caused by?

- A. HPV 31, 33
- B. HPV 6, 11
- C. HPV 16, 18
- D. HPV 11, 16

Ans 25. Correct answer is B. Condyloma acuminata, also known as anogenital warts, is most commonly caused by Human papillomavirus (HPV) types 6 and 11. It is primarily spread through sexual contact.

Q26. ART guidelines for pregnant females?

- A. Start after the 1st trimester and continue lifelong
- B. Start immediately irrespective of trimester
- C. Start immediately and continue for 6 weeks after birth
- D. Start after the 1st trimester and continue for 6 weeks after birth

Ans 26. Correct answer is B. All pregnant women who are HIV positive require lifelong antiretroviral therapy irrespective of CD4 count and WHO clinical staging.

Q27. Which of the following is wrong about CPR?

- A. Compression rate is 120/min
- B. Compression ventilation ratio is 30:2
- C. AED is not advised in arrhythmia
- D. CPR is advised in case of cardiac arrest

Ans 27. Correct answer is C. In cardiopulmonary resuscitation, AED is advised if the rhythm is shockable. Shockable rhythms include ventricular tachycardia and ventricular fibrillation. In basic life support, AED is the only instrument that can detect the rhythm.

Q28. Which of the following is the indication to use sodium bicarbonate in DKA?

- A. $\text{pH} < 7.5$
- B. $\text{pH} < 7.2$
- C. $\text{pH} < 7.1$
- D. $\text{pH} < 6.9$

Ans 28. Correct answer is D. The only indication to use sodium bicarbonate in diabetic ketoacidosis is when $\text{pH} < 6.9$.

Q29. Drug of choice for cryptococcal meningitis?

- A. Miconazole + Fluconazole
- B. Amphotericin B + Fluconazole
- C. Amphotericin B + Flucytosine
- D. Amphotericin B + Clotrimazole

Ans 29. Correct answer is C. The drug of choice for cryptococcal meningitis is Amphotericin B with flucytosine for 2 weeks. This is followed by fluconazole as consolidation therapy for 8 weeks. Fluconazole is then prescribed for 1 or more years as maintenance therapy.

