

Pediatrics 6th year final archive

4/6/2025

Dr. Amjad

- 1. A 3-week-old baby presents with poor feeding, decreased activity, and jaundice. Which of the following is an important initial investigation to determine the diagnosis?**
 - a. Urine culture
 - b. Blood gases
 - c. Direct bilirubin**
- 2. A 4-hour-old newborn presents with jaundice. Upon further investigations, his blood group is A negative, and his mother's blood group is O negative. What is the likely underlying cause of jaundice?**
 - a. Rh incompatibility
 - b. ABO incompatibility**
- 3. Which of the following is always considered pathological jaundice?**
 - a. Breast milk jaundice
 - b. Unconjugated hyperbilirubinemia
 - c. Conjugated hyperbilirubinemia**
- 4. Which of the following is incorrect regarding phototherapy?**
 - a. Converts bilirubin into a water-soluble form
 - b. Causes irreversible/permanent retinal damage**
 - c. Requires eye protection
 - d. Causes a decrease in serum calcium
 - e. Causes abdominal distention and loose stools
- 5. Which of the following skin findings in a neonate is pathological**
 - a. Erythema toxicum
 - b. Harlequin
 - c. Mongolian spot
 - d. Mottling with circulatory instability**
- 6. What is the best initial indicator for the need for resuscitation?**
 - a. Skin color
 - b. Breathing effort**
 - c. Muscle tone

- 7. What is the best indicator for successful ventilation in neonatal resuscitation?**
- Increase in O₂ sat
 - Chest rise
 - Skin color changes
 - Increase in heart rate**
- 8. What is the most common cause of death in the first of week of life in hypoxic ischemic encephalopathy?**
- Multi-organ failure**
- 9. Which of the following is not part of the diagnostic criteria of Hypoxic Ischemic Encephalopathy?**
- Sustained low APGAR score for more than 5 minutes
 - Metabolic acidosis
 - Evidence of asphyxia
 - Elevated bilirubin**
 - Multiorgan dysfunction
- 10. Which of the following best describes Neonatal subtle seizures?**
- Includes eye deviation and apnea**
- 11. A pregnant lady with group B streptococcal colonization had intrapartum prophylaxis. What is the best management plan for the baby once it is born?**
- Antibiotic prophylaxis
 - Blood cultures
 - Observation if GA is more than 35 and 2 doses have been given**
- 12. Which of the following best describes Erb's palsy?**
- Moro reflex absent in both limbs
 - Internal rotation of the arm and limited movement**
- 13. What radiological feature best distinguishes meconium aspiration from RDS?**
- Air bronchogram
 - Diffuse consolidation
 - Decreased lung expansion
 - Patchy infiltrate and atelectasis**
- 14. A lady went into preterm labor in the 29th week of gestation. If the newborn developed signs of RDS. What would be the best management?**
- Antibiotics
 - CPAP and surfactant administration**

15. What is the main functional phospholipid in surfactant?

- a. **Lecithin**
- b. Sphingomyelin
- c. Phosphatidylglycerol

16. Best antibiotics for neonatal sepsis?

- a. Vancomycin + ceftriaxone
- b. **Ampicillin + gentamicin**

Dr. Omar

17. False about Guillain-Barré?

- a. Ascending
- b. Symmetrical
- c. **Constitutional symptoms are prominent**

18. False about Transverse Myelitis

- a. Involves the entire segment of the spine
- b. Sensation may be affected
- c. **Involvement of the spine is diffuse**

19. Which of the following is incorrect regarding spinal muscular atrophy?

- a. Type 1 is called Werdnig-Hoffman
- b. Type 1 is fatal by 2 years if not treated
- c. Severity depends on the number of copies of the SMN2 gene
- d. Gene therapy is only beneficial if used before 2 years
- e. **Risdiplam is the first FDA-approved drug**

20. An 8-year-old male comes to the clinic because his mother notices he has jerky movements while asleep. What is the most likely diagnosis?

- a. **Rolandic epilepsy**

21. Which of the following is not correctly matched?

- a. Ethosuximide – Absence epilepsy
- b. Baclofen – Spastic cerebral palsy
- c. Vigabatrin – West
- d. **Ritalin – Migraine**

- 22. Which of the following is incorrect regarding subacute sclerosing panencephalitis?**
- History of measles infection
 - Measles antibodies are found in the blood but not in the CSF**
- 23. Which of the following is incorrect about autoimmune encephalitis?**
- The first presenting symptom is behavioral change
 - The most common underlying tumor is an ovarian tumor
 - Antibodies are found in both the serum and the CSF
 - EEG shows periodic lateralized epileptiform discharges**
 - NMDA antibodies are the most common and characteristic
- 24. Which of the following is incorrectly matched regarding encephalitis?**
- Negri bodies – Rabies
 - Herpes simplex – affects the temporal lobe
 - EEG – can be normal in encephalitis**
- 25. Which of the following does not cause microcephaly?**
- Down syndrome
 - Craniosynostosis
 - Canavan syndrome**
 - Rubella
- 26. Which of the following is incorrect regarding neural tube defects?**
- Caused by the failure of the neural tube to close spontaneously between the 21st and 27th week of gestation**
- 27. One of the following is false regarding hydrocephalus**
- Aqueductal stenosis is the most common congenital and acquired cause of hydrocephalus
 - The choroid plexus produces 70% of CSF
 - In a normal child, CSF is produced at a rate of 20 mL/hr
 - The total volume of CSF is 150 mL in an adult
 - Arnold-Chiari I malformation is a common association**
- 28. One of the following CSF analyses does not match the correct diagnosis**
- 1000 of neutrophils, low sugar, high protein – bacterial meningitis
 - Few lymphocytes and high levels of protein – Gullian-Barre
 - 500 lymphocytes, sugar 40/50, protein 41 – TB meningitis**
- 29. Object permanence is expected at what developmental age?**
- 9 months**

30. One of the following is not part of the autism spectrum

- a. Asperger
- b. Rett
- c. Childhood disintegrative
- d. **Oppositional defiant disorder**

Dr. Abdelhadi

31. Which of the following is the direct Coombs test used to diagnose?

- a. Spherocytosis
- b. ITP
- c. **Rh incompatibility**

32. Factor 13 is best characterized by?

- a. **Half-life of 10 days**
- b. Involved in thrombin activation
- c. PT and PTT are abnormal

33. Which of the following coagulopathies presents with abnormal PTT that is not corrected with a 1:1 mixing study?

- a. Factor 11 deficiency
- b. **Lupus anticoagulant**
- c. Factor 7 deficiency

34. A female presents with a picture of ITP, platelet count is 20,000, and she has an intracranial hemorrhage. What is the best management?

- a. IVIG
- b. Corticosteroid
- c. **Platelet transfusion, IVIG, and corticosteroid**

35. MAHA is associated with all of the following except

- a. **Beta thalassemia**
- b. DIC
- c. TTP
- d. HUS
- e. Prosthetic valve

36. A newly adopted girl is noted to have frontal bossing, prominent cheeks, and a flat nasal bridge. Upon investigations, her hemoglobin is 8 mg/dl. What is the most likely diagnosis?
- Beta thalassemia major
 - Sickle cell anemia
37. A young male was treated for a UTI with trimethoprim-sulfamethoxazole, but he is now presenting with visible jaundice. What is the likely diagnosis?
- G6PD
 - Sickle cell
 - Beta thalassemia
38. Which of the following is the least likely indication for blood transfusion in a patient with sickle cell?
- Acute chest syndrome
 - In preparation for surgery
 - Acute splenic sequestration
 - Hemoglobin level of 8.6 mg/dl
39. A 16-year-old male presents to the clinic with a history of fatigue and bone pain. On examination, he has palpable painless cervical lymph nodes, and imaging shows a mediastinal mass. What is the most likely diagnosis?
- Hodgkin lymphoma
40. A case of a 3-year-old with AML. Which of the following is true about acute myeloid leukemia?
- Down syndrome is associated with a decreased incidence of this disease
 - Peak incidence is between the ages of 2 and 5
 - His age is a poor prognostic factor
 - Mostly arises from mature T cells
41. A 6-year-old female has short stature, café-au-lait spots, bone deformities, recurrent infections, and bleeding. Investigations reveal pancytopenia. What is the most likely diagnosis?
- Sickle cell
 - Diamond-blackfan anemia
 - Fanconi anemia

- 42. A patient who is a known case of sickle cell disease presents with chest pain, cough, and fever of 38.9. Imaging reveals a right lower lobe consolidation. Which of the following is correct regarding his condition?**
- A fat embolus from the bone marrow is considered a differential diagnosis for his presentation.
 - Symptomatic improvement is expected after blood transfusion
- 43. A 3-year-old male presents with recurrent otitis media; he recently suffered from osteomyelitis in his femur after a fall, and he was once hospitalized due to bacterial pneumonia. He is otherwise developmentally normal. What is the most likely underlying cause?**
- Severe combined immunodeficiency
 - X-linked hypogammaglobulinemia**
- 44. A patient with beta thalassemia has multiple transfusions and therefore takes iron chelation therapy 6 days a week. He presented with watery diarrhea and abdominal pain. What is the most likely causative organism?**
- E. coli
 - Salmonella
 - Yersinia enterocolitis**
- 45. Which of the following burn patterns is most suspicious for child abuse?**
- Presence of splash marks
 - Gloves and stocking distribution**
 - Burns involving the napkin area and flexor areas
- 46. Which of the following is correct about child abuse?**
- Accidental burn injury from splashing of hot liquids in young children presents as minor burns over the torso and head.
 - Dog bites are common injuries in children**
 - The color of the bruise can help accurately identify the age of injuries

Nephrology

- 47. A female who is a known case of IgA nephropathy had elevated blood pressure readings (130/95) on multiple occasions. Her renal function, liver function, and electrolytes are all normal. What would be the best anti-hypertensive agent to give her?**
- Enalapril**
 - Hydrochlorothiazide

- 48. Which of the following statements about IgA nephropathy is incorrect?**
- Patients with recurrent gross hematuria are at increased risk of end-stage renal disease (ESRD)
 - Hypertension due to IgA nephropathy is treated with ACE inhibitors
- 49. A young female with DM has +2 proteins in urine and was noted to have hypertension on more than one occasion. Which of the following agents is best for treating her condition?**
- Enalapril
- 50. A patient had an episode of acute gastroenteritis and is now presenting with a picture of HUS (exam question didn't directly say HUS). Which of the following is an expected finding during investigations**
- Low LDH
 - High haptoglobin
 - Elevated creatinine
- 51. Which of the following is not associated with hypocalcemia?**
- Thiazide diuretics
 - Hypoparathyroidism
 - Chronic kidney failure
- 52. A 35-day-old male had a UTI due to Proteus. On imaging, it was revealed that he has severe unilateral hydronephrosis. What is the most appropriate investigation to perform?**
- DMSA scan
 - VCUG
- 53. Which of the following best defines acute kidney injury?**
- A rise of creatinine 0.3 mg/dl from baseline within 48 hours
 - A rise of creatinine 1.5-fold from baseline within 48 hours
 - Urine output less than 0.5 ml/kg/hr for more than 3 hours
- 54. Which of the following is incorrect regarding Chronic kidney failure**
- All patients must have a decrease in GFR for at least 3 months
 - Stages 4 and 5 develop secondary hyperparathyroidism
 - Stage 5 is an indication for dialysis
- 55. Which of the following drugs is not beneficial in the management of pyelonephritis?**
- Nitrofurantoin
 - Trimethoprim-sulfamethoxazole

- 56. Which of the following is incorrect regarding post-streptococcal glomerulonephritis?**
- Use of antibiotics early on can help prevent its occurrence and complications from it
- 57. Which of the following is correct about nephrotic syndrome?**
- A child with steroid-sensitive nephrotic syndrome having 2 recurrences in one year warrants a kidney biopsy
 - Diagnosis is confirmed by hypoalbuminemia (level less than 2.5)
 - Minimal change disease is the cause of 30% of nephrotic syndrome cases
- 58. What is the fluid deficit therapy that should be given for a child with isonatremic dehydration 5% weighing 15 kg?**
- 1500 ml/day of 0.45% saline
 - 750 ml/day of 0.45% saline
 - 750 ml/day of normal saline
- 59. A 5-year-old boy is brought to the clinic by his parents due to bed-wetting, there are no other urinary symptoms, and it only occurs at night. What is the best management?**
- Reassure the parents, as this is a self-limiting condition.
- 60. A 3-year-old girl is seen in the emergency room for seizures. She has history of profuse diarrhea and vomiting for two days. She looks sick, difficult to arouse, and dehydrated with BP 95/50. Her investigations revealed a normal CBC, Creatinine 0.45mg/dl, urea 40 mEq/L, Sodium 113 mEq/L, potassium 3.4mEq/L and glucose 89 mg/dl, and calcium 8.9 mg/dl. Which of the following is the most important next step in her management?**
- A. Give her IV calcium gluconate 10%
 - B. Give a bolus of IV 0.45% NS
 - C. Give a bolus of IV 3% hypertonic saline
 - D. Give her IV D10W infusion
 - E. Give her IV ceftriaxone
- 61. A child recently had an episode of meningitis, Investigations show the following: Na=124, Cr=0.5, Urea=18, K=4.3, urine osmolality=420, urine Na=60, serum osmolality=250. What is the best management?**
- Fluid restriction
 - Hypertonic saline
 - Administer desmopressin

62. Which of the following is incorrectly matched?

- a. Severe vomiting – K+ level 3.5
- b. Cyclosporine – K+ level 3.5

Respiratory

63. What is the best treatment for a 2-year-old hospitalized due to community-acquired pneumonia?

- a. IV 3rd gen cephalosporin

64. Which of the following is not used for the management of cystic fibrosis?

- a. Inhaled tobramycin
- b. Inhaled DNase
- c. Mucolytics

65. All of the following are risk factors for the persistence of wheezes (development of asthma) in a child except

- a. A parent with asthma
- b. Atopic dermatitis
- c. Vitamin D deficiency
- d. Eosinophilia
- e. Wheezing apart from colds

66. A 13-year-old male presents complaining of cough, chest pain, and fever. Imaging revealed bronchopneumonia. What is the most likely causative organism?

- a. *Mycoplasma pneumoniae*
- b. *Streptococcus pneumoniae*

67. A 3-year-old male with sensorineural hearing loss is planned for cochlear implant surgery next week. What is the most appropriate vaccine to be given?

- a. Pneumococcal conjugated
- b. Pneumococcal polysaccharide
- c. Meningococcal conjugate
- d. Meningococcal polysaccharide

68. Which of the following is correct about bronchiolitis?

- a. Most common cause is bacterial
- b. Steroids are helpful in management
- c. Nebulized hypertonic saline is used in the management of hospitalized patients

Dr. Randa

69. Which of the following is the MOST SERIOUS adverse reaction associated with propylthiouracil in pediatric patients?

- a. Agranulocytosis
- b. Glomerulonephritis
- c. Severe liver disease
- d. Hypothyroidism
- e. Skin rash

70. Which of the following is NOT a side effect of growth hormone treatment?

- a. Hyperglycemia
- b. Insulin resistance
- c. Avascular necrosis
- d. Fluid retention
- e. Slipped capital femoral epiphysis (SCFE)

71. A child with random blood sugar readings ranging from 85-110 and a fasting blood sugar level of 95 is evaluated in the clinic, and everything was normal, but he has vitiligo. Which of the following is the incorrect statement?

- a. OGTT and insulin resistance are important for diagnosis
- b. Anti-GAD and anti-islet cell antibodies are important
- c. Pre-meal and post-meal glucocheck for 1 week is important
- d. High BMI and hypertension can be suggestive of type 2 DM
- e. Onset of symptoms after age of 40 is called MODY

72. Which of the following is incorrect regarding insulin therapy

- a. Glargine has no peak
- b. Actrapid insulin is used in the management of DKA
- c. The conventional regimen is the preferred regimen for insulin in diabetic children.

73. A child who is a known case of DM type 1 presented with DKA to the ER. While treating him with insulin, he became drowsy (suggesting the development of cerebral edema). Which of the following is not an essential part of initial management in this scenario?

- a. Check pupils' size and reactivity.
- b. Recheck blood sugar
- c. Recheck blood gases
- d. Check the insulin infusion line and dosage
- e. Immediate brain CT

74. Which of the following is incorrect about the management of DKA?

- a. Initial management includes IV fluid bolus and insulin bolus

75. A 5-year-old presents with premature thelarche. Which of the following suggests a peripheral rather than a central cause of precocious puberty?

- a. Uterine enlargement
- b. Elevated DHEAS
- c. Positive GnRH stimulation test

76. An 11-year-old male is brought to the clinic because of short stature, his parents' heights are 178 and 165, bone age is 9 years. Which of the following is incorrect?

- a. Bone age is suggestive of familial short stature.

77. Another question on short stature, where the case was clearly familial, we don't remember the rest of the details

78. Which of the following biochemical changes is NOT true in rickets?

- a. Phosphate is increased in patients with renal rickets
- b. PTH (parathyroid hormone) is normal in patients with X-linked hypophosphatemic rickets
- c. 1,25 (OH)₂ Vitamin D is low in patients with renal rickets
- d. PTH is increased in patients with nutritional rickets
- e. 25 OH Vitamin D is low in patients with Vitamin D-dependent rickets type 1

79. Which of the following is incorrectly matched in regard to inborn errors of metabolism?

- a. Galactosemia premature ovarian failure
- b. White matter disease developmental regression
- c. Mucopolysaccharidosis positive for glycosaminoglycans
- d. Homocystinuria bleeding disorder
- e. Urea cycle defect prolonged fasting triggers crises

80. Which of the following is correctly matched in regard to inborn errors of metabolism?

- a. Phenylketonuria macrocephaly
- b. Galactosemia Pseudomonas sepsis
- c. Fatty acid oxidation disorder non-ketotic hypoglycemia

81. Which of the following is not an indication to screen for inborn errors of metabolism?

- a. Unexplained metabolic alkalosis

82. Which of the following is incorrect about urea cycle defect?

- a. Presents with respiratory acidosis

Cardiac and chromosomal

83. A newborn is noted to have a pink right arm and blue lower extremities. What is the most likely diagnosis?

- a. Coarctation of the aorta

84. Single umbilical artery is mostly associated with?

- a. Congenital heart disease
- b. Chromosomal abnormalities

85. A 4-month-old is feeding poorly, sweats during feeds, and has poor weight gain. On examination, he is tachypneic, has hepatomegaly, diminished pulses, and a murmur. Which of the following is NOT likely to cause this clinical picture of failure to thrive and congestive heart failure?

- a. Large patent ductus arteriosus (PDA)
- b. Large ventricular septal defect (VSD)
- c. Truncus arteriosus
- d. Complete atrioventricular canal defect
- e. Secundum atrial septal defect

86. Which of the following is incorrectly matched?

- a. Turner syndrome – advanced maternal age

87. A child has a cleft lip and palate, a heart defect, hypocalcemia, and an absent thymus on imaging. Which of the following is correct regarding this condition?

- a. The cause is a microdeletion at chromosome 22q11.2

88. Which of the following best characterizes Down syndrome?

- a. Brachydactyly and upslanting of eyes

89. What is the best treatment for Acute rheumatic fever to avoid complications?

- a. Steroids
- b. Analgesics
- c. Antibiotics (penicillin)

GI

- 90. Which of the following is least associated with hepatitis C?**
- Cryoglobulinemia
 - Neuropathy
 - Porphyria cutanea tarda
 - Membranoproliferative GN
 - Autoimmune hepatitis**
- 91. Which of the following is the least likely mode of transmission of hepatitis A?**
- Feco-oral
 - Children in day care
 - Homosexual men
 - Blood transfusions**
- 92. One of the following is not suggestive of an organic cause of constipation.**
- Fecal incontinence
 - Anal fissure
 - Encopresis**
 - Weight loss
- 93. What is the most abundant immunoglobulin in breast milk?**
- IgA**
- 94. ORS contains all of the following except..**
- Sodium
 - Potassium
 - Glucose
 - Bicarbonate
 - Calcium**
- 95. Which of the following is false about inflammatory bowel disease in pediatrics?**
- The disease is more extensive in pediatrics than in adults
 - Crohn's disease involves the gut from mouth to anus
 - Erythema nodosum is typically associated with ulcerative colitis**
- 96. Which of the following is true regarding celiac disease**
- IgA levels are necessary to accurately interpret celiac antibodies**

97. A 3-year-old child presents with painless rectal bleeding associated with defecation, the blood is fresh, and rectal examination reveals an empty rectum with no expulsion of feces after DRE. What is the most likely diagnosis?

- a. Meckel's diverticulum
- b. Juvenile polyposis**
- c. Intussusception

98. Which of the following is incorrect about cow's milk protein allergy

- a. It is mostly an IgE-mediated reaction**
- b. An extensively hydrolysed formula is used for infants with IgE-mediated CMPA
- c. 60% of cases resolve by 1 year

99. In cases of children ingesting objects like batteries, which of the following is incorrect?

- a. The doctor must perform an endoscopy if the battery is more than 2cm in length and 5 cm in diameter.**
- b. The ingestion of multiple batteries at once carries a risk of intestinal perforation.
- c. In cases of battery ingestion, we need to measure heavy metal levels in blood and urine.
- d. Any object that passes through the stomach is likely to pass with the stool.

100. Which of the following is incorrect regarding functional abdominal pain?

- a. It is the most common cause of recurrent abdominal pain in children
- b. Functional abdominal pain is not real pain**
- c. Children with IBS improve with probiotics