Exam Quiz

1. Hematopoiesis is divided into 3 anatomic stages:

1. mesoblastic
2. hepatic
3. myeloid
4. lymphatic

2. Mesoblastic hematopoiesis means cellular elements of blood are formed at:

1. Yolk sac
2. Liver
3. Mesotrofoblast
4. Bone marrow

3. Myeloid hematopoiesis means cellular elements of blood are formed at:

1. Yolk sac
2. Liver
3. Placenta
4. Bone marrow

4. After birth the principal site of hemotopoiesis is:

1. Bone marrow
2. Liver
3. Lymph nodes
4. Spleen
5. Thymus

5. Megakaryocytes are precursors of…:

1. Erythrocytes.
2. Neutrophils
3. Platelets
4. Granulocytes

6. List the types of hemoglobin:

1. Embryonic type (HbP/HbE)
2. Fetal type (HbF)
3. Child type (HbC)
4. Adult type (HbA)

7. Predominant type of hemoglobin in children above 1 year of age is…:

1. Embryonic type (HbP/HbE)
2. Fetal type (HbF)
3. Child type (HbC)
4. Adult type (HbA)

8. Predominant type of hemoglobin in infants at first months after birth is…:

1. Embryonic type (HbP/HbE)
2. Fetal type (HbF)
3. Child type (HbC)
4. Adult type (HbA)

9. Physiologic anemia of infancy occurs at age…:

1. 4-5 day
2. 1 month
3. 2-3 month
4. 6 month

10. Which options are correct for physiologic anemia of infancy?

1. There is no hematological problem
2. No therapy is required
3. Rarely falls below 100 g/l
4. Therapy with iron medications is required

11. The normal platelet count for children ranges:

1. 100-320x10^9/L
2. 150-450x10^9/L
3. 180-500x10^9/L

12. Thrombocytopenia refers to a reduction in platelet count:

1. less 100x10^9/L
2. less 150x10^9/L
3. more 450x10^9/L

13. After birth, the neutrophil count is:

1. 20-30%
2. 45%
3. 60-70%

14. After birth, the lymphocytes count is:

1. 20-30%
2. 45%
3. 60-70%

15. The first physiological decussation (number of neutrophils and lymphocytes counts are equal) occurs:

1. after birth
2. on the 4-5th day of life
3. in 2-3 months
4. at 4-5 years

16. The second physiological decussation (number of neutrophils and lymphocytes counts are equal) occurs:

1. after birth
2. on the 4-5th day of life
3. in 2-3 months
4. at 4-5 years

17. Neutropenia is diagnosed in children under 1-year-old if:

1. the absolute neutrophil count is below $1,0x10^9$/L (or less than 1000 cells in 1 μL)
2. the absolute neutrophil count is below $1,5x10^9$/L (or less than 1500 cells in 1 μl)

18. Neutropenia is diagnosed in children older 1 year:

1. the absolute neutrophil count is below $1,0x10^9$/L (or less than 1000 cells in 1 μL)
2. the absolute neutrophil count is below $1,5x10^9$/L (or less than 1500 cells in 1 μL)

19. List the stages of iron deficiency:

1. Prelatent stage (iron depletion)
2. Latent stage (iron deficiency or sideropenia)
3. Postlatent stage **(**iron deficiency)
4. Stage of iron deficiency anemia

20. Anemia is defined as a reduction (below the normal age- dependent range) of...:

1. The amount of red blood cells in blood
2. The hemoglobin concentration in blood
3. The hemoglobin concentration in bone marrow
4. The amount of platelets in the blood

21. Children aged 6 months to 6 years are considered anemic if hemoglobin level:

1. less than 11 g/dL
2. less than 12 g/dL
3. less than 15 g/dL

22. Children aged 6-14 years are considered anemic at hemoglobin level:

1. less than 12 g/dL
2. less than 13 g/dL
3. less than 15 g/dL

23. Normal red blood cell morphology is characterized by a donut shape with the center 1/3 of the red cell being pale or without hemoglobin:

1. True
2. False

24. Initial laboratory testing for anemia should include:

1. Hemoglobin
2. Hematocrit
3. Red cell indices
4. Reticulocyte count
5. Examination of the peripheral blood smear
6. All listed above

25. The normal reticulocyte percentage of total RBCs during of childhood is approximately:

1. 0,01%
2. 0,1%
3. 1%
4. 10%

26. Decreased RBC production may be a consequence of:

1. Ineffective erythropoiesis
2. Complete or relative failure of erythropoiesis
3. Hemolysis
4. Bleeding

27. Increased destruction RBC may be a consequence of:

1. Ineffective erythropoiesis
2. Complete or relative failure of erythropoiesis
3. Hemolysis
4. Sequestration

28. Microcytosis and low or inadequate reticulocyte counts are observed with:

1. Chronic disease or inflammation
2. Iron deficiency anemia
3. Sideroblastic anemia
4. All listed above

29. Microcytosis and elevated reticulocyte counts are observed with:

1. Thalassemia syndromes
2. Iron deficiency anemia
3. Folate deficiency
4. Vitamin B-12 deficiency

30. Macrocytosis and low or inadequate reticulocyte counts are observed with:

1. Folate deficiency

2. Vitamin B-12 deficiency
3. Iron deficiency anemia

31. Indicators of accelerated erythrocyte destruction (hemolytic anemias) are:
1. Reticulocytosis
2. Indirect hyperbilirubinemia
3. Increased serum lactate dehydrogenase
4. Elevated troponin I

32. Select the laboratory criteria for folic acid deficiency anemia:
1. Macrocytic anemia
2. Microcytic anemia
3. Low or inadequate reticulocyte counts
4. Levels of iron and vitamin B-12 in serum are normal or elevated
5. Serum folic acid levels are low

33. Select the laboratory criteria for vitamin B-12 deficiency anemia:
1. Macrocytic anemia
2. Microcytic anemia
3. Low or inadequate reticulocyte counts
4. Serum vitamin B-12 levels are low
5. Excessive excretion of methylmalonic acid in the urine

34. Select the laboratory criteria for iron deficiency anemia:
1. Macrocytic anemia
2. Microcytic anemia
3. Reduced serum ferritin
4. Decreased serum iron levels
5. Increased soluble transferrin receptors

35. The therapeutic daily dose of elemental iron is:
1. 0,5-1 mg/kg in 3 divided doses
2. 3-6 mg/kg in 3 divided doses
3. 10 mg/kg in 3 divided doses

36. Choose conditions for the use of parenteral iron preparations:
1. Intolerance to oral iron preparations
2. Malabsorption
3. Severe anemia
4. Poor compliance
5. All listed above

37. The typical clinical and laboratory features of the hereditary spherocytosis (Minkowski-Chauffard disease) are:
1. Splenomegaly

2. Hemolytic anemia
3. Microspherocytes in the blood smear
4. Low or inadequate reticulocyte counts

38. Anemias are categorized on the basis of MCV (mean corpuscular volume) for:

1. Hyperchromic
2. Hypochromic
3. Macrocytic
4. Microcytic
5. Normochromic
6. Normocytic

39. Anemias are categorized on the basis of MCHC (mean corpuscular hemoglobin concentration) and MCH (mean corpuscular hemoglobin) for:

1. Hyperchromic
2. Hypochromic
3. Macrocytic
4. Microcytic
5. Normochromic
6. Normocytic

40. Hyperchromic anemia is diagnosed if mean corpuscular hemoglobin concentration (MCHC):

1. over 36 g/dL
2. 32-36 g/dL
3. below 32 g/dL
4. over 100 fl

41. Normochromic anemia is diagnosed if mean corpuscular hemoglobin concentration (MCHC):

1. over 36 g/dL
2. 32-36 g/dL
3. below 32 g/dL
4. 75-100 fl

42. Hypochromic anemia is diagnosed if mean corpuscular hemoglobin concentration (MCHC):

1. over 36 g/dL
2. 32-36 g/dL
3. below 32 g/dL
4. below 75 fl

43. Macrocytic anemia is diagnosed if mean corpuscular volume (MCV):

1. 75-100 fl

2. over 100 fl
3. below 75 fl
4. over 36 g/dL

44. Microcytic anemia is diagnosed if mean corpuscular volume (MCV):

1. 75-100 fl
2. over 100 fl
3. below 75 fl
4. below 32 g/dL

45. Normocytic anemia is diagnosed if mean corpuscular volume (MCV):

1. 75-100 fl
2. 32-36 g/dL
3. over 100 fl
4. below 75 fl

46. Choose examples of microcytic anemias:

1. Thalassemia
2. Iron deficiency anemia
3. B-12 deficiency anemia
4. Folic acid deficiency anemia

47. Choose examples of macrocytic anemias:

1. B-12 deficiency anemia
2. Iron deficiency anemia
3. Folic acid deficiency anemia
4. Thalassemia

48. Choose examples of hypochromic anemias:

1. Thalassemia
2. Iron deficiency anemia
3. B-12 deficiency anemia
4. Folic acid deficiency anemia

49. Choose examples of hyperchromic anemias:

1. Thalassemia
2. Iron deficiency anemia
3. B-12 deficiency anemia
4. Folic acid deficiency anemia

50. Choose examples of normochromic anemias:

1. Iron deficiency anemia
2. Hypoplastic anemia
3. Hemolytic anemia
4. B-12 deficiency anemia

5. Folic acid deficiency anemia

51. The pain felt when tapping over the right costal arch by the edge of the hand is:

1. Ortner's symptom
2. Georgievskiy-Mussy's symptom
3. Murphy's symptom

52. Name the point of a gallbladder projection:

1. Kehr's point
2. Mayo-Robson's point
3. Desjardin's point

53. Acute pain in the right hypochondrium during inhalation, while the examiner presses on gallbladder area is:

1. Ortner's symptom
2. Georgievskiy-Mussy's symptom
3. Murphy's symptom

54. Tenderness at the point of the phrenic nerve, between the crurae of the right sternocleidomastoid muscle is:

1. Ortner's symptom
2. Georgievskiy-Mussy's symptom
3. Murphy's symptom

55. If you palpate liver +1 cm below the right costal margin in child up to 5yers of age:

1. it is normal
2. it is pathological sign

56. Which of the following represents the most common type of gallstone?

1. pigment stones
2. protein stones
3. calcium carbonate stones
4.-cholesterol stones
5. mixed stones

57. Functional biliary disorders (biliary diskinesia) include following:

1. cholelithiasis
2. functional gallbladder disorder
3. functional pancreatic sphincter of Oddi disorder
4. functional biliary sphincter of Oddi disorder

58. Which of the following clinical-laboratory findings suggest acute calculous cholecystitis?

1. Murphy's sign
2. fever
3. leukocytosis
4. all listed above

59. Which characteristics of biliary-type abdominal pain (biliary colic) are correct?

1. severe epigastric or right upper quadrant pain
2. might radiate through to the back and right infrascapular regions
3. last at least thirty minutes but less than 6 hours
4. can be associated with nausea and vomiting
5. no structural basis to explain the pain

60. Gallbladder emptying (ejection fraction) on gallbladder scintigraphy is assessed as normal if:

1. less than 35%
2. more than 35%

61. Cholelithiasis can lead to complications...:

1. acute calculous cholecystitis
2. obstructive cholangitis due to choledocholithiasis
3. gallstone pancreatitis
4. peptic ulcer disease

62. Diagnostic criteria for functional gallbladder disorder (according to Rome IV criteria) are following:

1. biliary pain
2. absence of gallstones or other structural pathology
3. normal liver and pancreatic enzymes
4. detection of biliary sludge
5. increased level of conjugated bilirubin
6. low ejection fraction on gallbladder scintigraphy

63. Diagnostic criteria for functional biliary sphincter of Oddi disorder are following:

1. biliary pain
2. elevated liver enzymes or bile duct dilation (not both)
3. normal amylase and lipase
4. presence of bile duct stones

64. Diagnostic criteria of functional pancreatic sphincter of Oddi disorder are following:

1. biliary pain

2. elevated amylase
3. elevated liver enzymes
4. documented recurrent episodes of pancreatitis
5. exclusion of other etiology of pancreatitis

65. Biliary dyskinesia implies a motility disorder resulting from abnormal motor function of the:

1. gallbladder (manifest as impaired emptying)
2. sphincter of Oddi
3. pancreas
4. duodenum

66. Which tests are useful for assessment liver function?

1. alanine and aspartate transaminase (ALT, AST)
2. alkaline phosphatase (ALP), gamma-glutamyl transpeptidase (GGTP)
3. clotting tests (PT, INR, fibrinogen)
4. bilirubin (direct, indirect)
5. albumin

67. Which enzymes will be increased in blood in patients with pancreatitis:

1. lipase
2. amylase
3. alanine transaminase (ALT)
4. elastase-1

68. Cholestasis is characterized by the following:

1. direct hyperbilirubinemia (more than 50% of total bilirubin)
2. indirect hyperbilirubinemia (more than 50% of total bilirubin)
3. increased alkaline phosphatase
4. increased gamma-glutamyl transpeptidase (GGTP)
5. increased aspartate transaminase

69. Which of the following is most common in children? (one answer):

1. cholelithiasis
2. acute acalculous cholecystitis
3. cholangitis
4. functional gallbladder disorder

70. Which pancreatic enzyme are useful to assess pancreatic function?

1. lipase
2. amylase
3. alanine transaminase (ALT)
4. fecal elastase-1

71. Select a physiological features of the oral cavity in term-neonate:

1. buccae of Bitchat
2. salivary glands produce a lot of saliva
3. procheilon, transversal folds on the lips
4. the tongue completely fills the oral cavity
5. the mouth cavity is big
6. “geographic” tongue

72. What is the stomach volume in 1 mo old child?

1. 10 ml
2. 100ml
3. 250
4. 500

73. How swallowing of excessive amount of air while taking food is termed?

1. aspiration
2. regurgitation
3. aerophagia
4. rumination

74. How abnormal excretion of muscle fiber in feces is termed?

1. creatorrhea
2. steatorrhea
3. amilorrhea

75. How the presence of excess fat in feces is called?

1. creatorrhea
2. steatorrhea
3. amilorrhea

76. Select types of peptic ulcers

1. gastric
2. duodenal
3. intestinal
4. primary
5. secondary

77. How many primary teeth have got a 3-yrs old child?

1. 10
2. 18
3. 20
4. 25

78. Select correct statements for primary peptic ulcers:

1. it is chronic disease

2. more often in children is duodenal ulcers
3. associated with H. pylori infection
4. more often in children is gastric ulcers
5. it is result of NSAIDs using or stress
6. synonymous is peptic ulcer disease

79. Select correct statements for secondary peptic ulcers:

1. usually an acute process
2. it is chronic
3. associated with H. pylori infection
4. more often in children is gastric ulcers
5. it is result of NSAIDs using or stress
6. more often in children is duodenal ulcers

80. Select protective factors for gastric and duodenal mucosa:

1. prostaglandin secretion
2. adequate perfusion of the gastric wall
3. acid and pepsin secretion
4. epithelial regeneration capacity
5. mucus and bicarbonate secretion
6. gastrin secretion
7. H. pylori infection

81. Select aggressive factors for gastric and duodenal mucosa:

1. prostaglandin secretion
2. acid and pepsin secretion
3. gastrin secretion
4. mucus and bicarbonate secretion
5. H. pylori infection
6. oxidative stress
7. bile refluxes

82. Abdominal pain in children with peptic ulcer disease is characterized by:

1. dull pain or intermittent abdominal discomfort
2. nocturnal pain
3. acute burning abdominal pain
4. poorly localized abdominal pain
5. typically occurring several hours after a meal or in an empty stomach, often being relieved by eating
6. accompanied by bloating, nausea and vomiting

83. Which method is used to confirm peptic ulcer disease? (one answer):

1. esophagogastroduodenoscopy
2. abdominal ultrasound
3. abdominal X-ray

4. CT scan
5. blood tests

84. Which complication is the most common in peptic ulcer disease? (one answer):

1. bleeding
2. perforation
3. penetration
4. pyloroduodenic stenosis

85. Which tests are preferred to control H. pylori eradication?

1. urea breath test
2. serology testing
3. culture
4. histology
5. rapid urease test
6. stool antigen test

86. Which of these drugs are proton pump inhibitors?

1. omeprazole
2. metronidazole
3. lansoprazole
4. rabeprazole

87. Which of following is included for quadruple therapy additionally to triple scheme?

1. bismuth salts
2. vancomycine
3. famotidine

88. First-line treatment of H. pylori infection is:

1. PPI-furazolidone- metronidazole
2. Bismuth salts-PPI- metronidazole- tetracycline
3. PPI-clarithromycin-amoxicillin

89. Which of the following are “red flags” symptoms for functional gastrointestinal dysfunction:

1. weight loss
2. bloating
3. bleeding
4. anaemia
5. progressive dysphagia or odynophagia
6. nausea

90. Select the histamine H2-receptor antagonists:

1. cimetidine
2. famotidine
3. ranitidine
4. omeprazole
5. metronidazole

91. Which gastritis type according by etiology-based classification do you know?

1. H. pylori-induced
2. chemically induced gastritis (drugs) / reactive gastritis (duodenal refluxes)
3. autoimmune gastritis
4. special forms of gastritis (eosinophilic, lymphocytic, granulomatouse, associated with systemic diseases)
5. erosive gastritis

92. Worldwide the most common cause of chronic gastritis is:

1. infection with H. pylori
2. drug-induced
3. autoimmune gastritis

93. Secondary ulcers are usually associated with:

1. stress
2. sepsis
3. severe trauma, burns
4. drug therapy (steroids and NSAIDs)

94. Gastritis is a histological term exclusively which refers to different type of gastric inflammation?

1. true
2. false

95. How painful swallowing is termed?

1. Odynophagia
2. Rumination
3. Dysphagia
4. Tenesmus
5. Heatburn

96. Functional dyspepsia is characterized by one or more of the following symptoms that are unexplained after a routine clinical evaluation:

1. postprandial fullness
2. early satiation
3. epigastric pain / burning
4. vomiting

5. diarrhea

97. Secondary dyspepsia is term which used to describe symptoms of dyspepsia caused by organic or metabolic diseases like:

1. peptic ulcer disease
2. pancreaticobiliary disease
3. endocrine disorders
4. medication use
5. all listed above

98. A 10-year old girl has a 3-month history of intermittent burning epigastric pain that is made worse by fasting and improves with meals. She has no other symptoms. Parents were giving her ibuprofen 3 times a day for 1 week when she had a cold. Physical examination discloses only mild epigastric tenderness to palpation, vital signs are normal. Which of following diagnostic study should be done first?

1. abdominal ultrasonography
2. serologic testing for H.pylory
3. esophagogastroduodenoscopy
4. upper gastrointestinal barium study

99. Helicobacter pylori associated dyspepsia is diagnosed if:

1. dyspepsia symptoms disappear after H. pylori eradication
2. revealed H. pylori in patients with dyspepsia
3. excluded gastritis, peptic ulcer disease

100. Functional dyspepsia is classified in next subcategories:

1. epigastric pain syndrome
2. postprandial distress syndrome
3. vomiting-pain syndrome

101. First-line therapy for functional dyspepsia includes next drugs:

1. proton pump inhibitors or H2-receptors antagonists
2. prokinetic drugs (cisapride, domperidone)
3. antidepressants

102. Second-line drugs for functional dyspepsia include (one answer):

1. proton pump inhibitors or H2RAs
2. prokinetic drugs (cisapride, domperidone)
3. antidepressants
4. psychological therapy

103. Select invasive methods of H. pylori diagnosis:

1. urea breath test
2. culture

3. histology
4. rapid urease test
5. stool antigen test

104. Select non-invasive methods of H. pylori diagnosis:

1. urea breath test
2. culture
3. histology
4. rapid urease test
5. serology testing

105. Serology testing for H. pylori infection is not recommended for clinical use:

1. true
2. false

106. Before testing for H. pylori eradication you have to wait:

1. at least 2 weeks after stopping PPIs
2. 2 days after stopping PPIs maximum
3. 4 weeks after stopping antibiotics
5. 4 days after stopping antibiotics maximum
6. shouldn’t wait any time

107. Recommended duration of H. pylori eradication therapy is:

1. 10-14 days
2. 5-7 days
3. 14-20 days

108. Sydney System for the classification of gastritis combines:

1. topographical information
2. morphological information
3.-tiological information
4. clinical information

109. There are several categories of gastritis according morphological picture:

1. acute
2. chronic
3. special forms
4. subacute

110. Which histological change should be described to confirm chronic inflammation of gastric mucosa (chronic gastritis)?

1. increased lymphocytes and plasma cells in the lamina propria
2. neutrophilic infiltrates in the lamina propria
3. eosinophilic infiltrates in the lamina propria

111. Which histological changes should be described to assess activity of inflammation of gastric mucosa?

1. lymphocytes and plasma cells infiltration in the lamina propria
2. neutrophilic infiltration in the lamina propria

112. What does it mean «chronic active gastritis»?

1. increased lymphocyte cells and neutrophils infiltration in mucosa
2. increased lymphocyte cells infiltration cells in mucosa
3. increased neutrophil cells infiltration in mucosa

113. Which parameters should be described in histological assessment of biopsy specimens from gastric mucosa according to Sydney system?

1. topographical distribution (antrum, fundus, corpus)
2. chronic inflammation grade (low, moderate, severe)
3. activity level (low, moderate, severe, absent)
4. atrophy (present, absent)
5. intestinal metaplasia (present, absent)
6. H.pylori (low, moderate, severe, absent)

114. Grading of chronic inflammation or activity level (as low, moderate or severe) is determined by density of infiltration of the lamina propria with lymphocytes, plasma cells, neutrophils?

1. true
2. false

115. The Sydney classification of gastritis includes:

1. histological parameters of activity and chronicity
2. histological parameters of atrophy, intestinal metaplasia
3. topographical distribution
4. etiopathogenic information
5. all listed above

116. Select causes of hematuria in children:

1. minimal change disease
2. Alport syndrome
3. IgA nephropathy
4. poststreptococcal glomerulonephritis

117. Choose a classic example of the acute nephritic syndrome:

1. IgA nephropathy
2. Alport syndrome
3. poststreptococcal glomerulonephritis
4. minimal change disease

118. The most common cause of chronic nephritic syndrome in children is:

1. IgA nephropathy
2. poststreptococcal glomerulonephritis
3. membranous nephropathy

119. Acute nephritic syndrome characterized by classic triad:

1. gross hematuria
2. edema
3. hypertension
4. nephrotic range proteinuria

120. Poststreptococcal GN is most common in children ages…:

1. 5-12 yr
2. 2-6 yr
3. 15-18 yr

121. What causes acute poststreptococcal glomerulonephritis?

1. nephritogenic strains of group A beta-hemolytic streptococci
2. any strains of group A beta-hemolytic streptococci
3. Streptococcus pyogenes

122. Poststreptococcal glomerulonephritis may develop…:

1. 1 to 2 weeks after a streptococcal pharyngitis
2. 1 to 2 weeks after a streptococcal pneumonia
3. 3 to 6 weeks after a streptococcal celulitis
4. 3-6 weeks after impetigo

123. How does C3 level of complement in patient with poststreptococcal glomerulonephritis change?

1. significantly reduced
2. stayed in normal range
3. increased

124. How many times it takes to C3 level of complement in patient with poststreptococcal glomerulonephritis returns to normal after onset?

1. 6-8 wk
2. 1-2 wk
3. 3-6 mo

125. Select options for streptococcal infection confirmation:

1. throat culture
2. antistreptolysin O titer in blood
3. antideoxyribonuclease B level in blood
4. strepto-test

126. Cola-colored or tea-colored urine is a sign of:

1. gross hematuria
2. micro hematuria
3. 1 and 2

127. What is pathogenetic mechanism of poststreptococcal glomerulonephritis?

1. immediate type hypersensitivity (I type hypersensitivity reaction)
2. cytoxic mechanism (type II hypersensitivity reaction)
3. immune-complex-mediated mechanism (type III hypersensitivity)
4. delayed type (type IV hypersensitivity reaction)

128. Which changes in urine analysis are specific for poststreptococcal glomerulonephritis?

1. macroscopic hematuria
2. microscopic hematuria
3. RBC casts

129. Which changes in urine analysis are specific for poststreptococcal glomerulonephritis?

1. mild proteinuria
2. moderate proteinuria
3. massive proteinuria

130. Renal biopsy is recommended for diagnosing children with poststreptococcal glomerulonephritis:

1. true
2. false

131. Oliguria and other acute kidney injury signs can accompany poststreptococcal glomerulonephritis in acute phase:

1. true
2. false

132. Renal biopsy for children with poststreptococcal glomerulonephritis is indicated when…:

1. age less4yr
2. age more5yr
3. normal complement levels
4. absence of evidence of streptococcal infection
5. hematuria which accompanied by nephrotic syndrome

133. Renal biopsy is considered in children with poststreptococcal glomerulonephritis if present following symptoms:

1. C3 complement level didn’t restore in 6-8 wk after onset
2. persistent hypertension
3. renal function is worsening progressively
4. persistent gross hematuria

134. Which approach to treatment of poststreptococcal glomerulonephritis is correct?

1. only symptomatic treatment is needed
2. immune suppression is not useful
3. steroids should be started at the very beginning
4. systemic antibiotic therapy is indicated

135. Poststreptococcal glomerulonephritis in children has:

1. excellent prognosis with complete recovery
2. bad long-term prognosis due to developing chronic kidney disease

136. The main components of the hemostatic process are:

1. vessel wall
2. platelets
3. coagulation proteins
4. anticoagulant proteins
5. fibrinolytic system
6. all listed above

137. Hemostasis is divided into the following components:

1. primary hemostasis
2. secondary hemostasis
3. fibrinolysis

138. Primary hemostasis is characterized by:

1. vasodilation
2. vasoconstriction
3. platelet adhesion and aggregation
4. formation of a platelet plug

139. Secondary hemostasis is characterized by:

1. formation of fibrin
2. platelet adhesion and aggregation
3. formation of a platelet plug

140. The coagulation cascade is classically divided into:

1. intrinsic pathway
2. extrinsic pathway
3. common pathway

141. The intrinsic pathway involves the contact activation factors:

1. factor VIII, IX, XI, XII, high molecular weight kininogen and prekallikrein
2. tissue factor and factor VII
3 .factor X, V, II, I (fibrinogen)

142. The extrinsic pathway involves:

1. factor XII, XI, IX, VIII
2. tissue factor and factor VII
3. factor X, V, II, I

143. The common pathway involves:

1. factor XII, XI, IX, VIII
2. factor VII, and tissue factor
3. factor X, V, II, I

144. Select proteins which work as anticoagulants in the clotting process:

1. antithrombin III
2. protein C
3. protein S
4. tissue factor pathway inhibitor
5. all listed above

145. Petechiae is:

1. small, distinct pinpoint hemorrhages less than 2-4 mm in diameter
2. large, diffuse areas, usually black and blue in color
3. hemorrhages up to 1 cm

146. Petechial hemorrhages are typical for:

1. hemophilia A
2. hemophilia C
3. immune thrombocytopenia
4. Osler-Weber-Rendu syndrome

147. Hematoma, ecchymosis is:

1. pinpoint hemorrhages less than 2-4 mm in diameter
2. large, diffuse areas, usually black and blue in color
3. hemorrhages up to 1 cm

148. Hematoma, ecchymosis are specific for:

1. hemophilia A
2. Henoch-Schonlein purpura
3. immune thrombocytopenia
4. Osler-Weber-Rendu syndrome

149. Purpura is:

1. large, diffuse areas, usually black and blue in color
2. pinpoint hemorrhages less than 2-4 mm in diameter
3. pinpoint hemorrhages 4-10 mm in diameter

150. Purpuras are specific for:

1. hemophilia A
2 .Henoch-Schonlein purpura
3. immune thrombocytopenia
4. Osler-Weber-Rendu syndrome

151. Reference interval of activated partial thromboplastin time:

1. less 24 seconds
2. 24-35 seconds
3. more 50 seconds

152. Activated partial thromboplastin time characterizes:

1. the intrinsic and common pathway of coagulation cascade
2. the extrinsic pathway of coagulation cascade
3. function of platelets and their interaction with the vascular wall

153. Reference interval of prothrombin time and INR (international normalized ratio) :

1. 6-10 seconds and 1.2-1.8
2. 12-15 seconds and 0.8-1.2
3. 17-20 seconds and 0.5-0.8

154. Prothrombin time characterizes:

1. the intrinsic pathway of coagulation cascade
2. the extrinsic and common pathway of coagulation cascade
3. function of platelets and their interaction with the vascular wall

155. The normal platelet count for children ranges:

1. 100-320x10^9/l
2. 150-450x10^9/l
3. 180-550x10^9/l

156. The risk of bleeding is highly increased if:

1. platelet count is less 120 x10^9/l
2. platelet count is less 40-50x10^9/l
3. platelet count is less 70x10^9/l
4. platelet count is less 100x10^9/l

157. Spontaneous bleeding usually occur if the platelet count is:

1. less 20x10^9/l
2. less 50x10^9/l

3. less $70x10^9$/l
4. less $100x10^9$/l

158. Bleeding time characterizes:
1. the intrinsic pathway of coagulation cascade
2. the extrinsic and common pathway of coagulation cascade
3. function of platelets and their interaction with the vascular wall

159. According to the pathogenesis disorders of hemostasis are classified into:
1. vasopathy
2. platelet disorder
3. erythrocyte disorder
4. coagulopathy

160. Disorders of primary hemostasis are divided into:
1. vessel wall disorders
2. thrombocytopathies
3. thrombocytopenias
4. coagulopathy

161. Henoch-Schönlein purpura is characterized by:
1. palpable purpura
2. arthralgias
3. abdominal pain
4. hematuria
5. all listed above

162. The skin lesions in Henoch-Schönlein purpura are characterized by:
1. asymmetric lesions
2. symmetric lesions
3. occur in gravity-dependent areas or on pressure points

163. Gastrointestinal manifestations in Henoch-Schönlein purpura are characterized by:
1. abdominal pain
2. vomiting
3. diarrhea
4. microscopic hematuria
5. arthralgias

164. Musculoskeletal manifestations in Henoch-Schönlein purpura are characterized by:
1. painful joints (knees, ankles)
2. vomiting
3. swelling and reduced range of movement in joints

4. microscopic hematuria
5. intracerebral hemorrhage

165. Renal manifestations in Henoch-Schönlein purpura are characterized by:
1. frank nephritis, nephrotic syndrome
2. vomiting
3. microscopic hematuria, proteinuria
4. intracerebral hemorrhage

166. Neurologic manifestations in Henoch-Schönlein purpura are characterized by:
1. headache
2. seizures
3. behavior changes
4. microscopic hematuria, proteinuria
5. intracerebral hemorrhage

167. Thrombocytopenia is a platelet count less than (one answer!) :
1. $30x10^9/l$
2. $50x10^9/l$
3. $70x10^9/l$
4. $150x10^9/l$

168. Immune thrombocytopenia (ITP) is classified into:
1. newly diagnosed ITP
2. persistent ITP
3. chronic ITP
4. recurrent ITP
5. all listed above

169. Newly diagnosed immune thrombocytopenia:
1. lasting less than 3 months following diagnosis
2. present 12 or more months from diagnosis
3. lasting more than 3 months following diagnosis
4. defined as return of thrombocytopenia/symptoms after at least 3 mo of remission, sustained without treatment

170. Persistent immune thrombocytopenia is diagnosed if:
1. lasting less than 3 months following diagnosis
2. present 12 or more months from diagnosis
3. lasting more than 3 months following diagnosis
4. defined as return of thrombocytopenia/symptoms after at least 3 mo of remission, sustained without treatment

171. Chronic immune thrombocytopenia:

1. lasting less than 3 months following diagnosis
2. present 12 or more months from diagnosis
3. lasting more than 3 months following diagnosis
4. defined as return of thrombocytopenia/symptoms after at least 3 mo of remission, sustained without treatment

172. Recurrent immune thrombocytopenia:

1. lasting less than 3 months following diagnosis
2. present 12 or more months from diagnosis
3. lasting more than 3 months following diagnosis
4. defined as return of thrombocytopenia/symptoms after at least 3 mo of remission, sustained without treatment

173. Select features of immune thrombocytopenia in children:

1. symmetric rash
2. asymmetric rash
3. flat and not palpable petechiae
4. palpable purpura
5. spontaneous
6. ecchymoses

174. Preferable first-line treatment of immune thrombocytopenia:

1. antibiotics
2. intravenous immunoglobulin
3. intravenous anti-D therapy
4. corticosteroids

175. Traditional dose of intravenous immunoglobulins:

1. 0,1-0,5 g/kg
2. 0,8-1 g/kg
3. 3-4 g/kg

176. Hemophilia A:

1. factor VII deficiency
2. factor VIII deficiency
3. factor IX deficiency
4. factor X deficiency
5. factor XI deficiency

177. Hemophilia B:

1. factor VII deficiency
2. factor VIII deficiency
3. factor IX deficiency
4. factor X deficiency
5. factor XI deficiency

178. Hemophilia C:

1. factor VII deficiency
2. factor VIII deficiency
3. factor IX deficiency
4. factor X deficiency
5. factor XI deficiency

179. Which leukemia is most common in childhood (one answer)?

1. acute lymphoblastic leukemia
2. acute myelogenous leukemia
3. chronic myelogenous leukemia

180. Select clinical syndromes which are specific for leukemia:

1. hyperplastic
2. hemorrhagic
3. anemic
4. intoxication
5. all listed above

181. The number of blasts in peripheral blood in healthy children:

1. up to 5%
2. 5-10%
3. more30%
4. not detected

182. Which of the following are correct for acute leukemia:

1. abscence of immature forms of white blood cells, present blasts and mature cells
2. amount of blast cells in bone marrow more30%
3. fast-progressing anemia
4. amount of blast cells in bone marrow less30%

183. Which of the following are correct for chronic leukemia:

1. presence of immature forms of white blood cells (promyelocytes and myelocytes)
2. amount of blast cells in bone marrow less30%
3. basophilic-eosinophilic association
4. amount of blast cells in bone marrow more30%

184. The bone marrow is obtained in newborns by (one answer) :

1. tibia epiphysis puncture
2. calcaneus puncture
3. posterior superior ilium crest puncture
4. sternum puncture

185. The bone marrow is obtained in children under 1 year of age by (one answer):

1. tibia epiphysis puncture
2. calcaneus puncture
3. posterior superior ilium crest puncture
4. sternum puncture

186. The bone marrow is obtained in adolescence children by:

1. tibia epiphysis puncture
2. calcaneus puncture
3. posterior superior ilium crest puncture
4. sternum puncture

187. Normal range of blast cells in bone marrow:

1. 0-5% blasts
2. 10-15% blasts
3. 30-40% blasts

188. Gestational age is calculated from:

1. the day the mother first feel fetal movements
2. the day the mother first developed symptoms of pregnancy
3. the first day of the last mother's menstrual period
4. the day of conception

189. What is the range of normal gestational age:

1. 37 - 42 weeks
2. 38-40 weeks
3. 39-41 weeks

190. Preterm infants are:

1. born before 37 weeks
2. born before 36 weeks
3. born before 38 weeks

191. Which parameters are included in Apgar score:

1. heart rate
2. muscle tone
3. birth weight
4. temperature
5. skin color
6. reflex irritability

192. The Moro reflex is characterized by following:

1. in response to the trigger the baby throws back his or her head, extends out arms and legs, cries, then pulls arms and legs back in

2. persist up 2 months of age

3. in response to firm stroke the bottom of foot from heel up to big toe the foot turns in and toes flare up and fan out

4. disappear after 6 months of age

193. The neonatal period lasts from birth until:

1. 1 month of age
2. 2 weeks of age
3. 3 months of age
4. 1 year of age

194. Transitory conditions of neonates are:

1. toxic neonatal erythema
2. neonatal anemia
3. neonatal breast hypertrophy
4. weight loss by 15 %
5. uric acid crystals
6. transitory hypothermia

195. Normal newborn heart rate:

1. 120-160per minute
2. 180-200 per minute
3. 80-100 per minute
4. 60-90 per minute

196. Normal newborn breathing rate:

1. 40-60 per minute
2. 20-30 per minute
3. 16-25 per minute

197. Physical criteria for maturity at the new Ballard score:

1. plantar creases
2. respiration rate
3. skin
4. genitals
5. heart rate
6. length and weight

198. Neuromuscular criteria for maturity at the new Ballard score:

1. posture
2. arm recoil
3. stepping reflex
4. tonic neck reflex

5. “square window”
6. Babinski reflex

199. Physiologic jaundice is characterized by following:

1. bilirubin rate of accumulation more5mg/dL/day
2. manifests in the first 24 hours
3. lasts for a month
4. peak bilurubin concentration more10-12 mg/dL
5. light colored stool
6. loss of neonatal reflexes
7. hepatomegaly
8. indirect bilirubin level in umbilical cord serum is 1-3mg/dL

200. Causes of physiologic jaundice in neonates are:

1. higher mass of red blood cells with decreased its lifespan
2. deficiency of the uridine diphosphate glucuronosyltransferase (UGT) enzyme
3. increased enterohepatic circulation
4. Rh incompatibility
5. deficiency of the glucose-6-phosphate dehydrogenase
6. alfa1-antitrypsin deficiency

201. The most common cause of conjugated neonatal hyperbilirubinemia is:

1. biliary atresia
2. hemolytic disease of the newborn
3. Gilbert syndrome
4. galactosemia

202. Conjugated hyperbilirubinemia in neonates is:

1. always pathologic
2. always physiologic
3. may be both pathologic and physiologic

203. The most common cause of the newborn hemolytic disease are:

1. Rh incompatibility
2. hereditary spherocytosis
3. cephalhematoma
4. deficiency of vitamin K

204. Treatment of the hemolytic disease of the newborn can include:

1. phototherapy
2. intravenous immunoglobulin
3. exchange transfusion
4. ursodeoxycholic acid
5. antibiotics

6. glucocorticoids

205. Clinical manifestations of hemolytic disease of the newborn are:

1. pallor
2. jaundice is evident on the 1st day
3. hepatosplenomegaly
4. hydrops fetalis
5. jandice is evident on the 4th day

206. Laboratory findings of hemolytic disease of the newborn include:

1. anemia
2. leukocytosis
3. thrombocytosis
4. hyperbilirubinemia (due to unconjugated bilirubin predominantly)
5. hyperbilirubinemia (due to conjugated bilirubin predominantly)

207. Select the clinical manifestations of kernicterus:

1. poor feeding
2. loss of neonatal reflexes
3. convulsions
4. opisthotonos

208. The most common cause of neonatal mastitis is:

1. Staphylococcus aureus
2. Escherichia coli
3. Clostridium perfringens
4. Bacteroides fragilis

209. Breastfeeding should be initiated:

1. within 2 hours after normal delivery
2. within half an hour after normal delivery
3. more than 6 hours after normal delivery
4. the next day after normal delivery

210. The acronym TORCH refers to:

1. Toxoplasma gondii, Rubella Virus, Cytomegalovirus, Herpes Simlex Virus
2. Treponema pallidum, Rubella virus, Clostridia, HIV
3. Tuberculosis, Respiratory Syncytial Virus, Chlamidia, Hepatitis B virus

211. The following skin conditions are common in the newborn period:

1. molluscum contagiosum
2. erysipelas
3. erythema toxicum
4. milia
5. psoriasis

212. Initial empirical treatment of early-onset neonatal sepsis should consist of:

1. aminoglycoside and expanded-spectrum penicillin
2. third generation of cephalosporins and expanded-spectrum penicillin
3. monobactam and vancomycin
4. fluconazole and expanded-spectrum penicillin

213. Early-onset sepsis in neonates is most commonly associated with:

1. Group B Streptococcus (GBS)
2. Staphylococcus aureus
3. Candida
4. Enterobacter

214. Factors that are associated with or predispose to early-onset sepsis:

1. complicated delivery
2. meconium staining
3. maternal urinary tract infection
4. premature rupture of membranes

215. Which from following lab tests is more specific to confirm bacterial infection:

1. procalcitonin
2. erythrocyte sedimentation rate (ESR)
3. fibrinogen

216. Methicillin-resistant *S.* aureus (MRSA) infection usually requires treatment with:

1. fluconazole
2. vancomycin
3. oxacillin
4. gentamicin
5. metronidazole

217. Select clinical signs of neonatal mastitis:

1. more often bilateral involvement of mammary glands
2. more often unilateral involvement of mammary glands
3. normal body temperature
4. fever
5. painless breast hypertrophy
6. breast is edematous with local tenderness, erythema, heat

218. Most causes of proteinuria can be categorized into 3 groups:

1. tubular
2. overflow (due to multiple myeloma, myoglobinuria etc.)

3. glomerular
4. interstitial

219. What is a mechanism of overflow proteinuria?

1. large amounts of filtered proteins overwhelm the tubular reabsorptive capacity
2. tubular reabsorptive capacity is impaired
3. increased permeability of the glomerular capillary wall
4. 1 + 3

220. What is a mechanism of glomerular proteinuria?

1. large amounts of filtered proteins overwhelm the tubular reabsorptive capacity
2. tubular reabsorptive capacity is impaired
3. increased permeability of the glomerular capillary wall
4. 1 + 3

221. What is a mechanism of tubular proteinuria?

1. large amounts of filtered proteins overwhelm the tubular reabsorptive capacity
2. tubular reabsorptive capacity is impaired
3. increased permeability of the glomerular capillary wall
4. 1 + 3

222. Select causes of overflow proteinuria?

1. multiple myeloma
2. Fanconi syndrome
3. focal segmental glomerulosclerosis
4. interstitial nephritis
5. myoglobinuria (rhabdomyolysis, or hemolysis)

223. Select causes of tubular proteinuria?

1. multiple myeloma
2. Fanconi syndrome
3. focal segmental glomerulosclerosis
4. minimal change disease
5. interstitial nephritis

224. Select causes of glomerular proteinuria?

1. membranous nephropathy
2. Fanconi syndrome
3. focal segmental glomerulosclerosis
4. minimal change disease
5. interstitial nephritis

225. Urinary protein excretion in the normal child is…:

1. less than 100 mg/m^2/day or a total of 150 mg/day
2. less than 1 g/m^2/day
3. less than 10 mg/m^2/day

226. Normal protein excretion in children is defined as...:

1. ≤4 mg/m^2/hour
2. 4-40 mg/m^2/ hour
3. more40 mg/m^2/ hour

227. Abnormal protein excretion in children is defined as...:

1. ≤4 mg/m^2/hr
2. 4-40 mg/m^2/hr
3. more40 mg/m^2/hr

228. Normal urine protein-to-creatinine ratio (UPCR) in children is:

1. less than 2
2. greater than 1
3. less than 0.5

229. Transient proteinuria is associated with:

1. fever
2. seizure activity
3. exercise
4. congestive heart failure

230. Nephrotic-range proteinuria is defined as proteinuria:

1. more2.5-3.0g /24hr or more50 mg/kg/day
2. urine protein : creatinine ratio more2
3. 40 mg/m^2/hour (in a 24 hours urine collection)
4. all listed above

231. Select obligatory findings of the nephrotic syndrome:

1. hypoalbuminemia (≤2.5 g/dL), edema
2. hypertension
3. hyperlipidemia
4. nephrotic-range proteinuria
5. all listed above

232. Which is the commonest cause of the nephrotic syndrome in preschool age children:

1. minimal change nephrotic syndrome
2. focal segmental glomerulosclerosis
3. membranous nephropathy
4. membranoproliferative glomerulonephritis

233. Which is the commonest cause of the nephrotic syndrome in school age children:

1. minimal change nephrotic syndrome
2. focal segmental glomerulosclerosis
3. membranous nephropathy
4. membranoproliferative glomerulonephritis

234. A renal biopsy is not routinely performed if the patient fits the standard clinical picture of minimal change nephrotic syndrome:

1. false
2. true

235. Which features make minimal change nephrotic syndrome less likely:

1. gross hematuria
2. hypertension
3. hypocomplementemia
4. age less1 yr or more12 yr

236. What is correct for preschool age children with presumed minimal change nephrotic syndrome:

1. should be considered for renal biopsy before treatment
2. should be started treatment with steroids at once
3. should be started supportive, symptomatic treatment

237. What a daily dose of prednisone or prednisolone should be administered for patients diagnosed with minimal change nephrotic syndrome:

1. 20-40 mg/m^2/day or 0.5-1.0 mg/kg/day
2. 60 mg/m^2/day or 2 mg/kg/day
3. 80 mg/m^2/day or 2,5 mg/kg/day

238. Alternative therapies to corticosteroids in the treatment of nephrotic syndrome are following:

1. calcineurin inhibitors (cyclosporine or tacrolimus)
2. cyclophosphamide
3. mycophenolate
4. rituximab
5. all listed above

239. Upper respiratory tract includes:

1. paranasal sinuses
2. nasal cavity
3. pharynx
4. larynx
5 .lungs

240. Lower respiratory tract includes:

1. lungs
2. bronchi, bronchioles
3. larynx
4. alveolar sacs

241. The right lung consists of:

1. 5 lobes
2. 3 lobes
3. 2 lobes

242. The left lung consists of:

1. 5 lobes
2. 4 lobes
3. 2 lobes

243. The role of alveolar cells type II is:

1. transformation into alveolar cells type I upon damage
2. biosynthesis of pulmonary surfactant

244. Normal respiratory rate in newborns:

1. 40-60
2. 30-35
3. 25
4. 16-20

245. Normal respiratory rate in 1-year-old child:

1. 40-60
2. 30-35
3. 20-25
4. 16-20

246. Normal respiratory rate at 5 years of age:

1. 40-60
2. 40-45
3. 30-35
4. 20-25
5. 16-20

247. Normal respiratory rate in children older than 12 years old…:

1. 40-45
2. 30-35
3. 20-25
4. 16-20

248. Inflammation of the mucous membrane of the bronchi is…:

1. Tracheitis
2. Bronchitis
3. Laryngitis
4. Pneumonia

249. Inflammation of the parenchyma of the lungs is…:

1. Tracheitis
2. Bronchitis
3. Laryngitis
4. Pneumonia

250. Inflammation involving the vocal cords and structures inferior to the cords is…:

1. Tracheitis
2. Bronchitis
3. Laryngitis
4. Pneumonia

251. List the types of bronchitis:

1. Acute (simple) bronchitis
2. Acute obstructive bronchitis or acute bronchitis with wheezing
3. Chronic bronchitis
4. All listed above

252. The leading etiological factor of acute bronchitis in children:

1. parainfluenza
2. adenovirus
3. herpes simplex
4. gram-negative bacteria

253. List the symptoms of acute bronchitis:

1. cough
2. dyspnea
3. fever
4. infiltrates on the chest X-ray

254. List the symptoms of pneumonia:

1. cough
2. fever
3. dyspnea
4. pulmonary infiltrates on the chest X-ray
5. all listed above

255. Mechanisms of bronchial obstructions are:

1. mucous hypersecretion
2. edema of bronchial mucous membranes
3. bronchospasm
4. retraction of bronchial muscles

256. Select main etiological agents of pneumonia in children in the first 2 weeks of life:

1. Escherichia coli
2. Listeria monocytogenes
3. Mycoplasma pneumoniae
4. Streptococcus agalactia
5. Streptococcus pneumonia

257. Select more frequent etiological agents of pneumonia in children from 2 weeks up to 6 month of life:

1. Escherichia coli
2. Klebsiella pneumonia
3. Listeria monocytogenes
4. Streptococci spp
5. Chlamydia trachomatis

258. Select main etiological agents of pneumonia in children from 6 months of age up to 6 years old:

1. Streptococcus pneumonia
2. Hemophilus influenza
3. Mycoplasma pneumonia
4. Listeria monocytogenes

259. Select etiological agents of pneumonia in children above 6 years of age:

1. Streptococcus pneumoniae
2. Mycoplasma pneumoniae
3. Chlamydia pneumonia
4. Streptococcus pyogenes
5. All listed above

260. Community-acquired pneumonia refers to pneumonia…:

1. developed in a child outside of the healthcare facility
2. developed in a child in the first 48 hours after hospital admission
3. developed at least 48 hours after hospital admission

261. Hospital-acquired pneumonia:

1. develops at the first 48 hours of hospital admission
2. develops at least 48 hours after hospital admission

262. Slowly resolving pneumonia is:

1. more than 6 weeks duration
2. less than 6 weeks duration
3. less than 3 month duration
4. more than 6 month duration

263. List pulmonary complications of pneumonia:

1. Lung abscess
2. Atelectasis
3. Empyema
4. Pneumothrax
5. Septic shock
6. Acute respiratory distress syndrome

264. List extrapulmonary/systemic complications of pneumonia:

1. Acute respiratory distress syndrome
2. Septic shock
3. Lung abscess
4. Disseminated intravascular coagulation
5. Heart failure
6. Otitis media

265. Indications for hospitalization patients with pneumonia:

1. Age less6 month
2. Moderate to severe respiratory distress
3. No response to antibiotic therapy
4. Complicated pneumonia
5. All listed above

266. List the main symptoms of laryngitis:

1. «barking» cough
2. hoarseness
3. inspiratory stridor
4. normal temperature

267. List the main symptoms of croup:

1. «barking» cough
2. hoarseness
3. inspiratory stridor
4. normal temperature

268. Emergency help for patients with croup includes using:

1. Ibuprofen
2. Dexamethasone
3. Amoxicillin

4. Nibulized epinephrine
5. Acyclovir

269. Epiglottitis (supraglottitis) is caused by…:
1. Haemophilus Influenzae type B
2. Parainfluenzae type 1
3. Respiratory syncytial virus
4. Mycoplasma pneumonia
5. Streptococci spp

270. What etiological agent causes acute rheumatic fever?
1. beta-hemolytic Streptococcus Group A
2. Escherichia coli
3. Staphylococcus aureus
4. Herpes simplex
5. Hemophyllus influenze

271. Acute rheumatic fever typically develops …:
1. two to four days after a streptococcal throat infection
2. two to four weeks after a streptococcal throat infection
3. two to four months after a streptococcal throat infection

272. The major criteria for diagnosis with acute rheumatic fever:
1. carditis
2. polyarthriti
3. arthralgia
4. subcutaneous nodules
5. chorea

273. The major criteria for diagnosis with acute rheumatic fever:
1. fever
2. elevated C-reactive protein
3. erythema marginatum
4. carditis
5. chorea

274. The minor criteria for diagnosis with acute rheumatic fever:
1. fever
2. elevated C-reactive protein
3. carditis
4. arthralgia
5. prolonged PR interval on ECG

275. The minor criteria for diagnosis with acute rheumatic fever:
1. fever

2. elevated C-reactive protein
3. erythema marginatum
4. elevated erythrocyte sedimentation rate
5. prolonged QT interval on ECG

276. The minor criteria for diagnosis with acute rheumatic fever:

1. fever
2. elevated C-reactive protein
3. arthralgia
4. elevated erythrocyte sedimentation rate
5. prolonged QT interval on ECG

277. Evidences of previous Group A Streptococcus infection is:

1. positive throat culture
2. elevated or increasing streptococcal antibody titer
3. positive rapid streptococcal antigen test
4. elevated C-reactive protein

278. Evidences of previous Group A Streptococcus infection is:

1. positive throat culture
2. elevated erythrocyte sedimentation rate
3. positive rapid streptococcal antigen test
4. elevated C-reactive protein

279. Diagnostic criteria for rheumatic fever:

1. 2 major or 1 major and 2 minor criteria
2. 1 major and 1 minor criteria
3. evidence of recent GAS infection

280. Polyarthritis in acute rheumatic fever is characterized by following:

1. typically affects large joints
2. typically affects small joints
3. joints are hot, edematous, painful
4. joint involvement is not persistent, migratory in nature

281. Rheumatic myocarditis is characterized by …:

1. tachycardia
2. cardiac murmurs
3. mitral regurgitation
4. normal ECG

282. Sydenham chorea (rheumatic) is characterized by:

1. emotional and behavioural disturbances
2. incoordination of movements

3. jerky, uncontrollable, purposeless movements of the arms, face (grimacing), legs

4. controllable movements of the arms, face (grimacing), legs

5. diminished muscle tone (hypotonia)

283. Which antibiotics is indicated in the initial period of acute rheumatic fever:

1. amoxicillin
2. levofloxacin
3. bicillin-5
4. metronidazole

284. Antibiotic therapy for acute rheumatic fever is:

1. penicillins
2. macrolides
3. fluoroquinolones
4. carbopenems

285. Indications for treatment acute rheumatic fever in children with glucocorticosteroids:

1. low laboratory activity (CRP, ESR etc.)
2. progressive or severe heart rhythm disorders
3. ARF is accompanied by heart failure: NYHA Class I or II, by Ross I or II
4. ARF is accompanied by heart failure: NYHA Class III or IV, by Ross Class III or IV
5. pancarditis

286. Primary prevention of acute rheumatic fever is:

1. prevention of the initial attack of acute rheumatic fever
2. eradication of the Group A β-hemolytic Streptococcus
3. prevention and treatment of recurrent streptococcal tonsillitis in patients with acute rheumatic fever

287. Secondary prevention of acute rheumatic fever is:

1. prevention the initial attack of acute rheumatic fever
2. eradication of the Group A beta-hemolytic Streptococcus
3. prevention and treatment of recurrent streptococcal tonsillitis in patients with acute rheumatic fever

288. Duration of secondary prophylaxis for people who was diagnosed with rheumatic fever without carditis:

1. 5 years or until age 21 years (whichever is longer)
2. 10 years or until age 40 and often longer (whichever is longer)

289. Duration of secondary prophylaxis for people who was diagnosed with rheumatic fever with carditis and residual heart disease (persistent valvular disease):

1. 5 years or until age 21 years (whichever is longer)
2. 10 years or until age 40 and often longer (whichever is longer)

290. For secondary prophylaxis of rheumatic fever is used Penicillin G benzathine in single dose:

1. 1 million IU every 4 wk, IM
2. 1.2 million IU every 4 wk, IM
3. 1.5 million IU every 2 wk, IM
4. 1.5 million IU every 4 mo, IM

291. Select risk factors of congenital heart disease formation in utero:

1. gene mutations
2. infections
3. mother's age is less than 35
4. X-ray irradiation

292. Septation of the heart begins at about …:

1. 7 days of embryogenesis
2. 14 days of embryogenesis
3. 4-7 weeks of embryogenesis
4. 4-7 months of embryogenesis

293. Cardiovascular fetal communications:

1. Ductus venosus
2. Foramen ovale
3. Ductus arteriosus
4. Ventricular septal defect
5. Foramen rotundum

294. During the transition from fetal to neonatal circulation the following changes occur:

1. closing foramen ovale
2. ventricular septal defect closure
3. ductus venous closure
4. opening foramen ovale
5. ductus arteriosus spasm

295. The foramen ovale is usually functionally closed by …:

1. the 1st mo of life
2. the 2nd mo of life
3. the 3rd mo of life
4. with the first breath

296. Functional closure of the ductus arteriosus is usually complete by:

1. 1 hr
2. 10-15 hr
3. the 6th mo of life
4. the 1st year of life

297. What acyanotic congenital heart disease is most common in childhood?

1. Coarctation of the aorta
2. Patent ductus arteriosus
3. Tetralogy of Fallot
4. Ventricular septal defect

298. Congenital heart diseases can be classified into 4 groups:

1. acyanotic CHD with normal pulmonary blood flow
2. acyanotic CHD with increased pulmonary blood flow
3. acyanotic CHD with increased aortic blood flow
4. cyanotic CHD with normal or decreased pulmonary flow
5. cyanotic CHD with increased pulmonary blood flow

299. CHD with the left-to-right shunt lesions:

1. Atrial septal defect
2. Transposition of the great vessels
3. Patent ductus arteriosus
4. Tetralogy of Fallot
5. Ventricular septal defect

300. CHD with the right-to-left shunt lesions:

1. Transposition of the great vessels
2. Coarctation of the aorta
3. Patent ductus arteriosus
4. Tetralogy of Fallot
5. Ventricular septal defect

301. CHD with the obstructive lesions:

1. Transposition of the great vessels
2. Coarctation of the aorta
3. Pulmonary stenosis
4. Tetralogy of Fallot
5. Aortic stenosis

302. Atrial septal defect is characterized by following:

1. often asymptomatic (if a small defect)
2. failure to thrive
3. fixed wide split S2

4. deviation of the electrical axis to the left
5. hypertrophy of the right ventricle

303. Atrial septal defect is characterized by following:

1. often asymptomatic (if a small defect)
2. examination of the chest may reveal a mild left precordial bulge
3. hypertrophy of the left ventricle
4. acyanotic

304. Ventricular septal defect is characterized by following:

1. often asymptomatic (if a small defect)
2. cyanotic
3. ECG: biventricular enlargement
4. recurrent pulmonary infections
5. acyanotic

305. Patent ductus arteriosus is characterized by following:

1. often asymptomatic
2. retardation of physical growth (with large shunts)
3. continuous systolodiastolic murmur in the II-III intercostal space at the left sternal border (left subclavicular region)
4. cyanotic
5. acyanotic

306. Coarctation of aorta is characterized by following:

1. weakness or pain in their legs with exercise
2. blood pressure in the legs is lower than that in the arms
3. blood pressure in the legs is higher than that in the arms
4. disparity in pulsation and blood pressure in the arms and legs
5. cyanotic

307. Systolic blood pressure on the legs is:

1. higher than that on the arms
2. lower than that on the arms
3. equal as on arms

308. Coarctation of aorta is characterized by following:

1. intermittent claudication
2. cold legs and feet
3. blood pressure on the legs is higher than that on the arms
4. blood pressure on the legs is lower than that on the arms
5. acyanotic

309. Tetralogy of Fallot is a combination of congenital anomalies:

1. Pulmonary stenosis

2. Atrial septal defect
3. Dextroposition of the aorta
4. Right ventricular hypertrophy
5. Left ventricular hypertrophy

310. Tetralogy of Fallot is a combination of next congenital anomalies:

1. pulmonary stenosis
2. atrial septal defect
3. ventricular septal defect
4. dextroposition of the aorta
5. right ventricular hypertrophy

311. Tetralogy of Fallot is characterized by following:

1. acyanotic
2. cyanotic
3. anoxic blue spell
4. ventricular septal defect
5. right ventricular hypertrophy

312. Emergency treatment of anoxic blue spell includes:

1. Adrenaline
2. Oxygen
3. Cardiac glycosides
4. Promedol
5. beta-adrenoreceptor blocking agents

313. Systolic blood pressure measured on the legs by cuff method is higher than that in the arms for:

1. 5 mm Hg
2. 10-20 mm Hg
3. 40 mm Hg

314. Which of the congenital heart diseases are not accompanied by cyanosis?

1. Transposition of the great vessels
2. Coarctation of the aorta
3. Patent ductus arteriosus
4. Tetralogy of Fallot
5. Ventricular septal defect

315. Which of the congenital heart diseases are accompanied by cyanosis?

1. Transposition of the great vessels
2. Atrial septal defect
3. Patent ductus arteriosus
4. Tetralogy of Fallot
5. Tricuspid atresia

316. Which of the congenital heart diseases is accompanied by anoxic blue spells?

1. Transposition of the great vessels
2. Atrial septal defect
3. Patent ductus arteriosus
4. Tetralogy of Fallot
5. Ventricular septal defect

317. Which of the CHD are NOT accompanied by cyanosis?

1. Ventricular septal defect
2. Coarctation of the aorta
3. Patent ductus arteriosus
4. Tetralogy of Fallot
5. Atrial septal defect

318. Which of the CHD are accompanied by cyanosis?

1. Transposition of the great vessels
2. Ventricular septal defect
3. Coarctation of the aorta
4. Tetralogy of Fallot
5. Atrial septal defect

319. What normal heart rate in a newborn is:

1. 140-180 per minute
2. 120-140 per minute
3. 100 per minute
4. 80-100 per minute
5. less than 80 per minute

320. What the normal heart rate in children 6-8 years old is:

1. more than 140 per minute
2. 120-140 per minute
3. 100-120 per minute
4. 80-100 per minute
5. 60-80 per minute

321. Normal total urine output for newborns (the 24-hour urine collection test):

1. 300 ml
2. 600 ml
3. 1000 ml
4. 1500 ml

322. Normal total urine output for 5-6 years old children (the 24-hour urine collection test):

1. 300 ml
2. 600 ml
3. 1000 ml
4. 1500 ml

323. Anuria:

1. less0,15 ml/kg/h
2. less0,5 ml/kg/h
3. less1,0 ml/kg/h
4. more1,0 ml/kg/h
5. -no urine output

324. Oliguria:

1. less0,15 ml/kg/h
2. less0,5 ml/kg/h
3. less1,0 ml/kg/h
4. more1,0 ml/kg/h

325. Normal leukocyte counts (spontaneously voided urine):

1. less 10 WBCs/μL or 2-5 WBCs/hpf in boys
2. less 5 WBCs/μL or 1-2 WBCs/hpf in boys
3. less 20 WBCs/μL or 4-8 WBCs/hpf in girls
4. less 50 WBCs/μL or 10-12 WBCs/hpf in girls

326. Select causes of urinary tract infections:

1. Escherichia coli
2. Klebsiella pneumoniae
3. Proteus mirabilis
4. Staphylococcus saprophyticus
5. All listed above

327. Escherichia coli is a:

1. Gram-negative bacterium
2. Gram-positive bacterium

328. Select predisposing factors for UTIs:

1. Kidney malformations
2. Female gender
3. Vesicoureteral reflux
4. Constipation
5. Anemia

329. Urinary tract infections include following:

1. Pyelonephritis
2. Glomerulonephritis
3. Cystitis
4. Asymptomatic bacteriuria
5. Neurogenic bladder dysfunction

330. Normal total urine output for 1-year-old child (the 24-hour urine collection test):

1. 300 ml
2. 600 ml
3. 1000 ml
4. 1500 ml

331. Urinary tract infections are classified according to episode:

1. UTI, first episode
2. UTI, second episode
3. recurrent UTI

332. Normal urine output in newborn and infant up to 1 year:

1. 2 ml/kg/hour
2. 1 ml/kg/hour
3. 0.5 ml/kg/hour

333. Asymptomatic bacteriuria refers to a condition in which there is a positive urine culture without any manifestations of infection:

1. true
2. false

334. Normal urine output in toddlers:

1. 3 ml/kg/hour
2. 1-1.5 ml/kg/hour
3. 0.5 ml/kg/hour

335. Cystitis is an inflammation in the:

1. lower urinary tract
2. upper urinary tract

336. Pyelonephritis is an inflammation in the:

1. lower urinary tract
2. upper urinary tract

337. Select clinical manifestations of cystitis:

1. suprapubic pain
2. dysuria, stranguria, malodorous urine, incontinence, haematuria
3. poor appetite, failure to thrive, irritability, vomiting, diarrhoea

4. fever (more38C)

338. Pyelonephritis is diffuse pyogenic infection of the:

1. renal pelvis
2. renal parenchyma
3. urinary bladder mucosa
4. glomeruli

339. Clinical signs of pyelonephritis in infants:

1. suprapubic pain
2. irritability, vomiting, diarrhea
3. fever (more38C)
4. poor appetite, failure to thrive, lethargy

340. Criteria for urinary tract infections if urine specimen obtained by suprapubic bladder aspiration (CFU - colony-forming units):

1. any number of CFU
2. ≥ 1000–50 000 CFU/ml
3. ≥ 10^4 CFU/ml
4. ≥ 10^5 CFU/ml

341. Criteria for urinary tract infections if urine specimen obtained by bladder catheterization (CFU - colony-forming units):

1. any number of CFU
2. ≥ 1000–50 000 CFU/ml
3. ≥ 10^4 CFU/ml
4. ≥ 10^5 CFU/ml

342. Criteria for urinary tract infections if urine specimen from midstream void (CFU - colony-forming units):

1. any number of CFU
2. ≥ 1000–50 000 CFU/ml
3. ≥ 10^4 CFU/ml with symptoms
4. ≥ 10^5 CFU/ml without symptoms

343. Select findings of glomerular hematuria:

1. dysmorphic RBCs
2. urine color is dark brown, “like Coca-Cola”
3. urine color is bright red
4. normal morphology of erythrocyte
5. RBC casts

344. Select findings of non-glomerular hematuria:

1. dysmorphic RBCs
2. urine color is dark brown, “like Coca-Cola”

3. urine color is bright red
4. normal morphology of erythrocyte
5. RBC casts

345. Leukocyturia and bacteriuria are confirmed by following positive dipstick tests:

1. leukocyte esterase test and nitrite test
2. leukocyte esterase test
3. nitrite test and test for ketones
4. leukocyte esterase test and test for ketones

346. Normal urine output in school-age children and adolescence:

1. 2 ml/kg/hour
2. 1 ml/kg/hour
3. 0.15 ml/kg/hour
4. 2.5 ml/kg/hour

347. Clinical signs of pyelonephritis in children:

1. abdominal pain
2. flank and back pain
3. high fever and chills
4. subfebrile fever
5. all listed above

348. Microscopic hematuria is defined as:

1. 3 RBCs/hpf or more in 2 of 3 urine samples
2. more15 RBCs/hpf in urine samples
3. 1-2 RBCs/hpf in a urine sample

349. Infant is:

1. A child of 1 month of life
2. A child of 4 weeks – 1 year of age
3. A child of 1–2 years of age
4. A child of 3–5 years of age

350. Toddler is:

1. A child of 1st month of life
2. A child of 4 weeks – 1 year of age
3. A child of 1–3 years of age
4. A child of 3–5 years of age

351. Marasmus is a:

1. type of severe undernutrition with generalized edema
2. type of severe undernutrition, with no generalized edema

352. Choose a synonym of Kwashiorkor:

1. oedematous malnutrition
2. non-celiac gluten sensitivity
3. non-oedematous malnutrition

353. A body length is a parameter which measured in a child who is:

1. placed supine
2. standing up

354. Height is a parameter which measured in a child who is:

1 placed supine
2. standing up

355. Length is measured by:

1. infantometer
2. stadiometer
3. tape

356. Height is measured by:

1 infantometer
2. stadiometer
3. tape

357. Fat requirement for 0-3 months-old infants is:

1. 5,5 g/kg/24hr
2. 6,5 g/kg/24hr
3. 5,0 g/kg/24hr
4. 6,0 g/kg/24hr

358. Protein requirement for 7-12 months-old infants is:

1. 1,2 g/kg/24hr
2. 1,7 g/kg/24hr
3. 2,2 g/kg/24hr
4. 0,5 g/kg/24hr

359. Energy requirement for 0-6 month-old infants is:

1. 115 kcal/kg/24hr
2. 100 kcal/kg/24hr
3. 130 kcal/kg/24hr

360. What is the most common cause of food allergy in infants?

1. cow’s milk
2. peanuts
3. fish
4. eggs

5. citrus fruit

361. Celiac disease is:

1. a small-bowel gluten-sensitive enteropathy
2. genetic disorder that affects lungs, digestive system (pancreas, liver), sweat glands
3. chronic inflammatory bowel disease

362. Serology testing for diagnosis of Celiac disease include assessment of:

1. total IgE level
2. anti-tissue transglutaminase IgA, IgG
3. anti-endomysial IgA, IgG
4. immunoreactive trypsin level
5. fecal elastase-1

363. Body mass index (BMI) is calculated by:

1. dividing weight in kilograms by the square of height in meters
2. dividing height in meters by the weight in kilograms
3. dividing weight in kilograms by the height in meters

364. BMI over the 95th (97th) percentile in children indicates:

1. overweight
2. risk of overweight
3. obesity

365. According to the WHO classification acute moderate undernutrition is:

1. Z score weight for height -1,1 to -2
2. Z score weight for height -2 to -3
3. Z score height for age -2 to -3

366. According to the WHO classification chronic severe undernutrition (stunting) is:

1. Z score weight for age less -2
2. Z score height for age less -3
3. Z score height for age less -2
4. Z score weight for height less -2

367. Colostrum is:

1. the milk secreted during the first two weeks of lactation
2. the milk secreted during the first three days after delivery
3. the milk of a mother who delivers prematurely
4. the milk secreted at the start of a feed

368. Criteria for successful breastfeeding are:

1. initiate breastfeeding within a half-hour of birth

2. give neonate/infant water after breastmilk
3. initiate breastfeeding 24 hours after uncomplicated delivery
4. during the first six months of life give infants no other food or drink except breastmilk
5. practice rooming-in
6. encourage breastfeeding on demand
7. feed the infant strictly by the hour

369. Breastfeeding is contraindicated in children with:

1. galactosemia
2. celiac disease
3. phenylketonuria
4. cystic fibrosis
5. maple syrup urine disease
6. congenital hypothyroidism

370. Which parameters are used for physical growth evaluating?

1. body weight
2. muscle tone
3. length
4. head circumferences
5. respiration rate
6. chest circumferences

371. Expected body weight for 0-6 months-old babies is calculated by the formula (n = age of the baby in month):

1. Expected weight = birth weight+800n
2. Expected weight = birth weight+600n
3. Expected weight = birth weight+400n
4. Expected weight = birth weight+1000n

372. Expected body weight for 6-12 months-old babies is calculated by the formula (n = age of the baby in month):

1. Expected weight = birth weight+800*6+400(n-6)
2. Expected weight = birth weight+600*6+400(n-6)
3. Expected weight = birth weight+800*6+600(n-6)

373. Expected length of a 6 months old baby (length at birth was 50 cm) is about:

1. 66 cm
2. 60 cm
3. 75 cm
4. 70 cm

374. Developmental milestones of a 3-months-old infant:

1. holds his head in vertical position
2. produces cooing
3. produces monosyllables (da, ma)
4. holds object with crude grasp by palm
5. follows the object with steady movement of eyes

375. Developmental milestones of a 5 months old infant:

1. rolls from back to side and from back to abdomen
2. produces monosyllables (da, ma)
3. crawls, keeping his abdomen off the ground
4. sits without support
5. sits with support
6. holds object with crude grasp to palm

376. Developmental milestones of an 1-year-old infant:

1. speaks first words
2. tells a short story
3. stands without support
4. can walk to the toilet
5. dresses or undresses himself

377. Developmental milestones of a 9-months-old infant:

1. is sitting without support
2. can understand spoken speech and respond in an appropriate manner to verbal requests e.g. «Where is daddy?»
3. crawls, keeping his abdomen off the ground
4. can hold small object between index finger and thumb (pincer grasp)

378. Developmental milestones of an 1-month-old infant:

1. lifts the chin up momentarily in the midline
2. holds his head in vertical position
3. recognizes the mother
4. turns his head towards the sound of a bell or a rattle

379. Which of the following are considered as extensively hydrolyzed formulas?

1. Alfare
2. Humana HA
3. Frisopep
4. HiPP AR
5. PreNAN

380. Recommended prophylactic dose for vitamin D in neonates and infants (up to 1 year of age) is:

1. 400–600 IU/day

2. 100–200 IU/day
3. 1,000–2,000 IU/day

381. Deficient level of vitamin D diagnoses if serum 25(OH)D is:
1. less40 ng/mL
2. less 20 ng/mL
3. 50 ng/mL

382. Typical laboratory findings for nutritional rickets are following:
1. decreased serum 25(OH)D level
2. decreased serum phosphorus
3. decreased serum calcium
4. increased serum calcium
5. decreased alkaline phosphatase (ALP)
6. increased alkaline phosphatase (ALP)
7. increased serum phosphorus

383. Hypocalcemia (for term infants) is diagnoses if:
1. total serum calcium less than 2 mmol/L or ionized calcium less than 1.1 mmol/L
2. total serum calcium less than 2,5 mmol/L or ionized fraction of less than 1.5 mmol/L
3. total serum calcium concentration less than 3 mmol/L or ionized calcium less than 2 mmol/L

384. The principals of complementary foods introduction for infant:
1. complementary foods should be given with a small spoon before breast/formula feeding
2. complementary foods should be given with a small spoon after breast/formula feeding
3. cereals or vegetables puree are recommended to be introduced first
4. fruit juice is recommended to be introduced at 3 months
5. meat is recommended to be introduced after 9months
6. the whole egg is recommended to be introduced at 5 months

385. Recommended daily amount of food for an 8-month-old child:
1. 1/8 of body mass
2. 1/7 of body mass
3. 1/6 of body mass
4. 1/5 of body mass

386. Recommended daily amount of food for a 3-month-old child:
1. 1/5 of body mass
2. 1/4 of body mass
3. 1/6 of body mass

4. 1/7 of body mass

387. Which of the following are specialized formulas:

1. NAN-2
2. Frisolac 1
3. NAN AR
4. Alfare
5. Neocate

388. Heart failure, depending on the rate of development of symptoms divided by:

1. acute HF
2. subacute HF
3. chronic HF
4. recurrent HF

389. Acute heart failure is characterized by:

1. life-threatening condition
2. rapid onset symptoms of HF
3. requiring hospitalisation
4. long-term condition

390. Left-sided heart failure is generally associated with signs of:

1. pulmonary venous congestion
2. systemic venous congestion

391. Right-sided heart failure is generally associated with signs of:

1. pulmonary venous congestion
2. systemic venous congestion

392. Congestive heart failure with normal cardiac output is classified as:

1. compensated
2 .uncompensated

393. Congestive heart failure with inadequate cardiac output is classified as:

1. compensated
2. uncompensated

394. Left ventricular failure can be divided into:

1. compensated, uncompensated
2. systolic, diastolic dysfunction
3. acute, subacute

395. HF in children can be divided into two groups according causes:

1. over-circulation failure, pump failure
2. systolic, diastolic dysfunction
3. compensated, uncompensated

396. Select symptoms of right-sided heart failure:

1. hepatosplenomegaly
2. ascites
3. decreased urine output
4. pulmonary edema

397. Select symptoms of right-sided heart failure:

1. edema (puffiness of the eyes or feet)
2. pleural effusions
3. cardiac asthma
4. bradypnea

398. Select symptoms of left-sided heart failure:

1. hepatosplenomegaly
2. nasal flaring or grunting
3. recurrent wheezing
4. tachypnea

399. Select symptoms of left-sided heart failure:

1. tachypnea
2. respiratory distress
3. cyanosis
4. diaphoresis during feedings
5. ascites and/or pleural effusions

400. Which classification of heart failure for children is used?

1. NYHA classification
2. ACC/AHA classification
3. Ross classification
4. ARF classification
5. Jones criteria

401. Class I (Ross classification):

1. asymptomatic
2. mild tachypnea or diaphoresis with feeding in infants, dyspnea on exertion in older children

3. marked tachypnea or diaphoresis with feeding in infants, marked dyspnea on exertion, prolonged feeding times with growth failure

4. symptoms such as tachypnea, retractions, grunting, or diaphoresis at rest

402. Class II (Ross classification):

1. symptoms such as tachypnea, retractions, grunting, or diaphoresis at rest

2. mild tachypnea or diaphoresis with feeding in infants, dyspnea on exertion in older children

3. marked tachypnea or diaphoresis with feeding in infants, marked dyspnea on exertion, prolonged feeding times with growth failure

4. asymptomatic

403. Class III (Ross classification):

1. asymptomatic

2. mild tachypnea or diaphoresis with feeding in infants, dyspnea on exertion in older children

3. marked tachypnea or diaphoresis with feeding in infants, marked dyspnea on exertion, prolonged feeding times with growth failure

4. symptoms such as tachypnea, retractions, grunting, or diaphoresis at rest

404. Class IV (Ross classification):

1. asymptomatic

2. mild tachypnea or diaphoresis with feeding in infants, dyspnea on exertion in older children

3. symptoms such as tachypnea, retractions, grunting, or diaphoresis at rest

4. marked tachypnea or diaphoresis with feeding in infants, marked dyspnea on exertion, prolonged feeding times with growth failure

405. Class I (NYHA classification):

1. no limitations of physical activity

2. symptoms with minimal exertion that interfere with normal daily activity

3. may experience fatigue, palpitations, dyspnea, or angina during moderate exercise but not during rest

4. unable to carry out any physical activity because they typically have symptoms of HF at rest that worsen with any exertion

406. Class II (NYHA classification):

1. no limitations of physical activity

2. symptoms with minimal exertion that interfere with normal daily activity

3. may experience fatigue, palpitations, dyspnea, or angina during moderate exercise but not during rest

4. unable to carry out any physical activity because they typically have symptoms of HF at rest that worsen with any exertion

407. Class III (NYHA classification):

1. no limitations of physical activity
2. symptoms with minimal exertion that interfere with normal daily activity
3. may experience fatigue, palpitations, dyspnea, or angina during moderate exercise but not during rest
4. unable to carry out any physical activity because they typically have symptoms of HF at rest that worsen with any exertion

408. Class IV (NYHA classification):

1. no limitations of physical activity
2. symptoms with minimal exertion that interfere with normal daily activity
3. unable to carry out any physical activity because they typically have symptoms of HF at rest that worsen with any exertion
4. may experience fatigue, palpitations, dyspnea, or angina during moderate exercise but not during rest

409. Select basic investigations in patients with suspected heart failure:

1. chest radiography
2. electrocardiography
3. echocardiography
4. metabolic and genetic testing
5. endomyocardial biopsy

410. Select special investigations in patients with heart failure:

1. cardiac magnetic resonance imaging
2. electrocardiography
3. polymerase chain reaction
4. metabolic and genetic testing
5. endomyocardial biopsy

411. Drugs used in pediatric heart failure:

1. furosemide
2. digoxin
3. metopropol
4. bicillin-5
5. metronidazole

412. Furosemide is given intravenously at a dose of:

1. 0,1-0,2 mg/kg

2. 1-2 mg/kg
3. 10-20 mg/kg

413. Device therapy in heart failure includes:

1. cardiac resynchronization therapy
2. extracorporeal membrane oxygenation
3. pacemaker therapy
4. cardiac magnetic resonance imaging
5. endomyocardial biopsy

414. Cardiomegaly on pediatric chest radiography is suggested by a cardiothoracic ratio of:

1. more60% in neonates
2. more55% in neonates
3. more55% in older children
4. more50% in older children

ANSWERS

1 – 1, 2, 3
2 – 1
3 – 4
4 – 1
5 – 3
6 – 1, 2, 4
7 – 4
8 – 2
9 – 3
10 – 1, 2, 3
11 – 2
12 – 2
13 – 3
14 – 1
15 – 2
16 – 4
17 – 1
18 – 2
19 – 1, 2, 4
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24 – 6
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28 – 4
29 – 1

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344 – 3, 4
345 – 1
346 – 2
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