

MCQs 6<sup>th</sup> academic year

1. The patient with acquired heart failure has diastolic pressure of 0 mm Hg. What heart failure does the child have?
  - A. Aortal insufficiency
  - B. Mitral stenosis
  - C. Aortal stenosis
  - D. Mitral insufficiency
  - E. Rheumatic fever
2. One of your asthmatic patients arrives for a checkup. The child seems to need albuterol daily, especially when exercising, and she has coughing fits that awaken her from sleep about twice a week. Appropriate treatment measures would include which of the following?
  - A. Short-acting inhaled  $\beta$ -agonist, as needed
  - B. Daily leukotriene modifier with short-acting  $\beta$ -agonist
  - C. Inhaled nedocromil with short-acting  $\beta$ -agonists
  - D. Medium-dose inhaled corticosteroids with short-acting  $\beta$ -agonists
  - E. High-dose inhaled corticosteroids with theophylline and short-acting  $\beta$ -agonists
3. A 9 year old girl with a history of intermittent wheezing for several years is brought to the pediatrician. The child has been taking no medications for some time. Physical examination reveals agitation and perioral cyanosis. Intercostal and suprasternal retractions are present. The breath sounds are quiet, and wheezing is audible bilaterally. The child is admitted to the hospital. Appropriate interventions might include all of the following EXCEPT:
  - A. Prescribe nebulized cromolyn sodium
  - B. Prescribe intravenous aminophylline
  - C. Administer supplemental oxygen
  - D. Prescribe intravenous corticosteroids
  - E. Prescribe nebulized metaproterenol
4. An 8-year-old boy is accidentally hit in the abdomen by a baseball bat. After several minutes of discomfort, he seems to be fine. Over the 24 h, however, he develops a fever, abdominal pain radiating to the back, and persistent vomiting. On examination the abdomen is tender, with decreased bowel sounds, but especially painful, with guarding in the midepigastic region. Which of the following tests is most likely to confirm the diagnosis?
  - A. Serum amylase
  - B. CBC with differential
  - C. Serum bilirubin level
  - D. Abdominal radiograph
  - E. Electrolyte panel
5. A 7 y.o. boy was admitted to the hospital. He complains of unpleasant sensations in the heart region, pain in the epigastrium, dizziness, vomiting. Objectively: evident paleness of skin, dyspnea, jugular pulse. Heart borders are within the normal range. Heart sounds are clear, HR- 170/min, small pulse. AP- 90/50 mm Hg. EKG showed: paroxysm of ventricular tachycardia. The paroxysm can be suppressed by:
  - A. Lidocain
  - B. Morphine
  - C. Enalapril
  - D. Nifedipine
  - E. Strophanthine
6. In the night a 2-year-old boy developed noisy breathing on inspiration, marked retractions of the chest wall, flaring of the nostrils, and a barking cough. He has had a mild upper respiratory infection (URI) for 2 days. Which of the following is the most likely diagnosis?
  - A. Asthma
  - B. Epiglottitis

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- C. Bronchiolitis
  - D. Viral croup
  - E. Foreign body in the right mainstem bronchus
7. A 2-months-old child after preventive vaccination had a prolonged hemorrhage from the vaccination place and due to those an intramuscular hematoma. During examination of the child a considerable rise of prothrombin consumption and a significant prolongation of the activated partial thromboplastic time were found. What is the most probable diagnosis?
- A. Hemophilia
  - B. Werlhof's disease
  - C. Henoch-Schoenlein disease
  - D. Hemorrhagic disease of the neonate
  - E. Inborn afibrinogenemia
8. A 10-year-old boy has been having "bellyaches" for about 2 years. They occur at night as well as during the day. Occasionally, he vomits after the onset of pain. occult blood has been found in his stool. His father also gets frequent stomachaches. Which of the following is the most likely diagnosis?
- A. Peptic ulcer
  - B. Appendicitis
  - C. Meckel diverticulum
  - D. Functional abdominal pain
  - E. Pinworm infestation
9. A 6-month-old infant has large, foul-smelling stools and is not gaining weight. Sweat chloride level was 68 mmol/l. Appropriate nutritional recommendations include which one of the following?
- A. Change to elemental formula
  - B. Pancreatic enzyme replacement
  - C. High-fat diet
  - D. Low-protein diet
  - E. Low-carbohydrate diet
10. A 14 year old child suffers from vegetovascular dystonia of pubertal period. He has got sympathoadrenal attack. What medicine should be used for attack reduction?
- A. No-shpa
  - B. Obsidan
  - C. Amysyl
  - D. Aminophylline
  - E. Corglicone
11. A 12-month-old girl has been spitting up her meals since 1 month of age. Her growth is at the 95th percentile, and she is otherwise asymptomatic and without findings on physical examination. Which of the following is the most likely diagnosis?
- A. Pyloric stenosis
  - B. Partial duodenal atresia
  - C. Hypothyroidism
  - D. Gastroesophageal reflux disease
  - E. Tracheoesophageal fistula
12. A 10 month old boy has been ill for 5 days after consumption of unboiled milk. Body temperature is 38-39°C, there is vomiting, liquid stool. The child is pale and inert. His tongue is covered with white deposition. Heart sounds are muffled. Abdomen is swollen, there is borborygmus in the region of umbilicus, liver is enlarged by 3 cm. Stool is liquid, dark-green, with admixtures of mucus, 5 times a day. What is the most probable diagnosis?
- A. Salmonellosis
  - B. Staphylococcal enteric infection

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- C. Escherichiosis
- D. Acute shigellosis
- E. Rotaviral infection

13. An 11-year-old child diagnosed with hepatitis C infection. Which of the following may be considered in the treatment of chronic hepatitis C infection?

- A. Active vaccination
- B. Interferon
- C. Gamma globulin
- D. Zidovudine
- E. Low-protein diet

14. A 14-year-old girl has a 9-month history of diarrhea, abdominal pain (usually periumbilical and postprandial), fever and weight loss. She has had several episodes of blood in her stools. Which of the following is the most likely diagnosis?

- A. Chronic appendicitis
- B. Chronic pancreatitis
- C. Crohn disease
- D. Bulimia
- E. Gallstones

15. A 17-year-old boy is brought to the emergency room with the complaint of coughing up blood. He is stabilized, and his HGB and hematocrit levels are determined to be in the safe range. At the hospital he is noted to have persistently elevated blood pressure and his urinalysis is remarkable for hematuria and proteinuria. You are suspicious the patient has which of the following?

- A. Hemolytic-uremic syndrome
- B. Goodpasture syndrome
- C. Nephrotic syndrome
- D. Poststreptococcal glomerulonephritis
- E. Renal vein thrombosis

16. A child was delivered severely premature. After the birth the child has RI symptoms, anasarca, fine bubbling moist rales over the lower lobe of the right lung. Multiple skin extravasations, bloody foam from the mouth have occurred after the 2 day. On chest X-ray: atelectasis of the lower lobe of the right lung. In blood: Hb-100 g/L, Ht- 0,45. What is the most probable diagnosis?

- A. Edematous-hemorrhagic syndrome
- B. Disseminated intravascular clotting syndrome
- C. Pulmonary edema
- D. Hyaline membrane disease
- E. Congenital pneumonia

17. A 14-year-old girl is noted over a several year period to have progressive renal deficiency. She now has an 80% reduction of glomerular filtration rate and elevated levels of blood urea nitrogen and creatinine. Which of the following is she most likely to demonstrate?

- A. Polycythemia
- B. Rickets
- C. Hypoglycemia
- D. Early onset of puberty
- E. Metabolic alkalosis

18. An 8 y.o. boy was ill with B hepatitis one year ago. In the last 2 months he has complaints of undue fatigability, sleep disorder, appetite loss, nausea, especially in the mornings. Skin isn't icterious, liver and spleen are 1 cm below the costal margins, painless. Alanine aminotransferase activity is 2,2 mcml/L. How can this condition be estimated?

- A. Development of chronic hepatitis

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- B. Recurrence of viral hepatitis type B
  - C. Biliary dyskinesia
  - D. Residual effects of old viral hepatitis type B
  - E. Development of liver cirrhosis
19. During routine well child visit of 24 month child, pediatrician revealed that parents missed one routine check up. How often child should undergo routine visits during second year of life?
- A. 15 mo, 18mo, 24mo
  - B. 15mo, 24mo
  - C. 16mo, 19mo
  - D. 14mo, 16mo, 18mo, 24mo
  - E. A and C is correct
20. During routine well child examination of 5y.o boy, pediatrician determined height of child 115 cm, weight 24 kg, BP 108/68, CBC: Hb 12g/dl HTC 35%. Parents of children are vegetarians and they asked physician if child can be a vegetarian also. Which of the following should be the correct doctor response?
- A. It is absolutely contraindicated in such young child.
  - B. Can be performed under dietetic supervision, to compose diet with vegetables and grains selected from different classes. More often routine visits and CBC exam should be done.
  - C. It is totally healthy but parents must be sure that kids get key nutrients, especially protein and calcium.
  - D. Should inform about possible delayed growing and anemia development.
  - E. B and D is correct
21. Infant is 6,5 months now and is given natural feeding since birth. Body mass was 3,5 kg, with length 52 cm at birth. How many times per day the supplement (up feeding) should be given?
- A. 2
  - B. 3
  - C. 1
  - D. 0
  - E. 4
22. A 4-year-old boy, whose past medical history is positive for 3 urinary tract infections, presents with a blood pressure of 135/90 mm Hg. He is likely to exhibit which of the following symptoms?
- A. Multiple cranial nerve palsy
  - B. Hedache
  - C. Hyporeflexia
  - D. Increased urine output
  - E. Right ventricular hypertrophy
23. A 15-year-old girl has had intermittent fever, malaise and weight loss over the previous several months. Recently she has developed swollen hands, wrists and ankles, the pain of which seems out of proportion to the clinical findings. Which of the following laboratory tests is most likely to assist in the diagnosis?
- A. Antibodies to nDNA and Sm nuclear antigen
  - B. Throat culture for group A  $\beta$ -hemolytic antigens
  - C. Urine culture
  - D. ESR
  - E. Creatinine, BUN
24. On the 15-th day after a minor trauma of the right foot a patient felt malaise, fatigability, irritability, headache, high body temperature, feeling of compression, tension and muscular twitching of his right crus. What disease can it be?
- A. Tetanus
  - B. Anaerobic gas gangrene
  - C. Erysipelas
  - D. Acute thrombophlebitis

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E. Thromboembolism of popliteal artery

25. A full-term child survived antenatal and intranatal hypoxia, it was born in asphyxia (2-5 points on Apgar score). After birth the child has progressing excitability, there are also vomiting, nystagmus, spasms, strabismus, spontaneous Moro's and Babinsky's reflexes. What localization of intracranial hemorrhage is the most probable?

- A. Small cerebral tissue hemorrhages
- B. Subdural hemorrhage
- C. Subarachnoid hemorrhage
- D. Periventricular hemorrhages
- E. Hemorrhages into the brain ventricles

26. Elevated levels of cholesterol and triglycerides found in a 6-year-old boy whose mother reports that he has been awakening with puffy eyes each morning. On your physical examination you determine that he has had unexpected weight gain and has scrotal edema. Which of the following is the most likely diagnosis?

- A. Nephrotic syndrome
- B. Henoch-Schonlein purpura nephritis
- C. Bartter syndrome
- D. Acute glomerulonephritis
- E. IgA nephropathy

27. A 2-week-old girl is brought to the emergency room. She is pale and dyspneic with a respiratory rate of 80 breaths per min. Heart rate is 195 bpm, heart sounds are distant, a gallop is heard, and she has cardiomegaly on x-ray. An echocardiogram demonstrates poor ventricular function, dilated ventricles and dilation of the left atrium. An ECG shows ventricular depolarization complexes that have low voltage. Which of the following is the most likely diagnosis?

- A. Endocardial fibroelastosis
- B. Pericarditis
- C. Tetralogy of Fallot
- D. Myocarditis
- E. Glycogen storage disease

28. An 18-month-old child was taken to a hospital on the 4-th day of the disease. The disease began acutely with temperature 39, weakness, cough, breathlessness. He is pale, cyanotic, has had febrile temperature for over 3 days. There are crepitative fine bubbling rales on auscultation. Percussion sound is shortened in the right infrascapular region. X-ray picture shows non-homogeneous segment infiltration 8-10 mm on the right, the intensification of lung pattern. Your diagnosis:

- A. Flu
- B. Segmentary pneumonia
- C. Bronchitis
- D. Bronchiolitis
- E. Interstitial pneumonia

29. A 9-year-old girl has attacks of abdominal pain after fried food. No fever. She has pain in Cera point. The liver is not enlarged. Portion B (duodenal probe) - 50 ml. What is your diagnosis?

- A. Biliary tracts dyskinesia, hypotonic type
- B. Hepatocirrhosis
- C. Acute colitis
- D. Chronic duodenum
- E. Peptic ulcer

30. A 9-month-old infant accidentally ingests an unknown quantity of digitalis. Which of the following is the most important noncardiac manifestation of toxicity in this infant?

- A. Fever

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- B. Dizziness
- C. Vomiting
- D. Visual disturbances
- E. Urticaria

31. 3-month-old infant is brought to your office for pallor and listlessness. Your physical examination reveals a heart rate of 280 bpm. He has no hepatomegaly and the lungs are clear. ECG reveals P waves before each QRS complex, but an abnormal P wave axis. The heart rate is consistent and does not vary with crying. Which of the following is the most appropriate initial management of this patient?

- A. Rapid verapamil infusion
- B. Transthoracic pacing of the heart
- C. Vagal nerve stimulation
- D. DC cardioversion
- E. Precordial thump

32. A 2-year-old boy is brought into the emergency room with a complaint of fever for 6 days and the development of a limp. On examination, he is found to have an erythematous macular exanthema over his body, conjunctivitis, a red throat and cervical lymphadenopathy. There is a systolic ejection murmur at the lower left sternal border. A CBC and differential show predominant neutrophils and increased platelets. Which of the following is the most likely diagnosis?

- A. Scarlet fever
- B. Rheumatic fever
- C. Kawasaki disease
- D. Juvenile rheumatoid arthritis
- E. Infectious mononucleosis

33. A newborn is diagnosed with congenital heart disease. You counsel the family that the incidence of heart disease in future children is which of the following?

- A. 1%
- B. 2-6%
- C. 8-10%
- D. 15-20%
- E. 25-30%

34. A newborn infant has mild cyanosis, poor peripheral pulses, hepatomegaly and cardiomegaly. Respiratory rate is 60 breaths per min, and heart rate is 250 bpm. The child most likely has congestive heart failure caused by which of the following?

- A. A large atrial septal defect and valvular pulmonic stenosis
- B. A ventricular septal defect and transposition of the great vessels
- C. Total anomalous pulmonary venous return
- D. Hypoplastic left heart syndrome
- E. Paroxysmal atrial tachycardia

35. During a regular checkup of an 8-year-old child, you note a loud first heart sound with a fixed and widely split second heart sound at the upper left sternal border that does not change with respiration. The patient is otherwise active and healthy. Which of the following heart lesions most likely explains these findings?

- A. Atrial septal defect
- B. Ventricular septal defect
- C. Tricuspid regurgitation
- D. Tetralogy of Fallot
- E. Mitral valve prolapse

36. A baby was born at 36 weeks of gestation. Delivery was normal, by natural way. The baby has a large cephalohematoma. The results of blood count are: Hb- 120g/l, Er- 3,51012/l, total serum

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bilirubin - 123 mmol/l, direct bilirubin - 11 mmol/l, indirect - 112 mmol/l. What are causes of hyperbilirubinemia in this case?

- A. Erythrocyte hemolysis
- B. Intravascular hemolysis
- C. Disturbance of the conjugative function of liver
- D. Bile condensing
- E. Mechanical obstruction of the bile outflow

37. A 9 year old boy had acute respiratory viral infection. After it there appeared polydipsia, polyuria, weakness, nausea. Examination revealed the following symptoms: mental confusion, dry skin, soft eyeballs, Kussmaul's respiration, acetone smell from the mouth, muffled heart sounds, soft and painless abdomen. Blood sugar was 19 millimole/l. What acute condition is it?

- A. Ketoacidotic coma
- B. Hyperosmolar coma
- C. Cerebral coma
- D. Hepatic coma
- E. Acute renal insufficiency

38. A child has a 2-week history of spiking fevers, which have been as high as 40°C. She has spindle-shaped swelling of finger joints and complains of upper sternal pain. Her heart sounds are muffled and she has increased pulsus paradoxus. Which of the following is the most likely diagnosis?

- A. Rheumatic fever.
- B. Juvenile rheumatoid arthritis
- C. Toxic synovitis
- D. Septic arthritis
- E. Osteoarthritis

39. A 3-day-old infant with a single 2<sup>nd</sup> heart sound has had progressively cyanosis since birth but no respiratory distress. Chest radiography demonstrates no cardiomegaly and normal pulmonary vasculature. An ECG shows an axis of 120° and right ventricular prominence. Which of the following congenital cardiac malformations is most likely responsible for the cyanosis?

- A. Tetralogy of Fallot
- B. Transposition of the great vessels
- C. Tricuspid atresia
- D. Pulmonary atresia
- E. Total anomalous pulmonary venous

40. Head circumference of a 1-month-old boy with signs of excitement is 37 cm, prefontanel is 2x2 cm large. After feeding the child regurgitates small portions of milk; stool is normal in its volume and composition. Muscle tone is within norm. What is the most likely diagnosis?

- A. Pylorospasm
- B. Meningitis
- C. Pylorostenosis
- D. Microcephaly
- E. Craniostenosis

41. On the second day after preventive vaccination a 2-year-old boy presented with abdominal pain without clear localization, body temperature rose up to 38°C. On the third day the child got red papular haemorrhagic eruption on the extensor surfaces of limbs and around the joints. Knee joints were edematous and slightly painful. Examination of other organs and systems revealed no pathological changes. What is the most likely diagnosis?

- A. Haemorrhagic vasculitis
- B. Thrombocytopenic purpura
- C. Meningococemia
- D. Urticaria

E. DIC syndrome

42. During a physical examination for participation in a sport, a 16-year-old girl is noted to have a late apical systolic murmur, which is preceded by a click. The rest of the cardiac examination is normal. Her mother also has some type of heart murmur but knows nothing else about it. Which of the following is the most likely diagnosis?

- A. Atrial septal defect
- B. Aortic stenosis
- C. Tricuspid regurgitation
- D. Mitral valve prolapse
- E. Ventricular septal defect.

43. A 15-year-old adolescent male presents to the office for a sports physical. He notes that he occasionally gets short of breath and dizzy during exercise, with occasional chest pain. He lost consciousness once last summer during football practice. His grandfather died suddenly at age 35 of unknown etiology. Choose the most likely cardiac diagnosis:

- A. Congenital heart block
- B. Hypertrophic cardiomyopathy
- C. Prolonged QT syndrome
- D. Congestive heart failure
- E. Cor pulmonale

44. The child is 11 m.o. He suffers from nervous-arthritis diathesis. The increased synthesis of what acid is pathogenic at nervous-arthritis diathesis?

- A. Uric acid
- B. Acetic acid
- C. Phosphoric acid
- D. Hydrochloric acid
- E. Sulfuric acid

45. A 10-year-old child complains of fever (temperature is 39°C), frequent painful urination (pollakiuria). Urine test: proteinuria (0,066 g/L), leukocyturia (entirely within eyespot), bacteriuria (105 colony forming units/mL). What is the most probable diagnosis?

- A. Acute pyelonephritis
- B. Acute glomerulonephritis
- C. Dysmetabolic nephropathy
- D. Acute cystitis
- E. Urolithiasis

46. Electrocardiographic monitoring provides information about the heart's:

- A. Coronary arteries
- B. Force of contraction
- C. Electrical activity
- D. Cardiac output
- E. Ejection fraction

47. The normal physiological pacemaker is the:

- A. Bundle of His
- B. AV node
- C. SA node
- D. Purkinje fibers
- E. Autonomic node

48. A 8-year-old boy has suffered from tonsillitis. In 2 weeks he started complaining of migratory joint pain, edema of joints, restriction of movements, fever. On examination, an acute rheumatic heart

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disease, activity of the III-rd degree, primary rheumocarditis, polyarthritis; acute course of disease, cardiovascular failure IIA. What medication is to be prescribed?

- A. Prednisone
- B. Cefazolin
- C. Delagil
- D. Diprazinum
- E. Erythromycin

49. The 10 y.o. boy has complains on headache, weakness, fever 40°C, vomiting, expressed dyspnea, pale skin with flush on right cheek, lag of right hemithorax respiratory movement, dullness on percussion over low lobe of right lung, weakness of vesicular respiration in this zone. The abdomen is painless and soft at palpation. Which disease lead to these symptoms and signs?

- A. Pneumonia croupousa
- B. Intestinal infection
- C. Acute appendicitis
- D. Acute cholecystitis
- E. Flu

50. Which ECG features would you look for in the patient who has hypokalemia?

- A. Tall, peaked T waves, prolonged PR
- B. Decreased height of T wave, U wave present
- C. Absent P waves
- D. Wide QRS
- E. Depressed ST

51. Individuals with Wolf-Parkinson-White syndrome are subject to episodes of:

- A. Atrial tachycardia
- B. Ventricula tachycardia
- C. Sinus bradycardia
- D. First degree block
- E. Third degree block

52. A patient with acute respiratory viral infection (3rd day of disease) complains of pain in lumbar region, nausea, dysuria, oliguria. Urinalysis - hematuria (100-200 RBC in eyeshot spot), specific gravity - 1002. The blood creatinin level is 0,18 millimole/l, potassium level - 6,4 millimole/l. Make the diagnosis:

- A. Acute renal failure
- B. Acute glomerylonephritis
- C. Acute cystitis
- D. Acute interstitial nephritis
- E. Acute renal colic

53. A 7 year old girl has mild form of varicella. Headache, weakness, vertigo, tremor of her limbs, ataxia, then mental confusion appeared on the 5th day of illness. Meningeal signs are negative. Cerebrospinal fluid examination is normal. How can you explain these signs?

- A. Meningitis
- B. Meningoencephalitis
- C. Encephalitis
- D. Myelitis
- E. Neurotoxic syndrome

54. During a regular checkup of an 8-year-old child, you note a loud first heart sound with a fixed and widely split second heart sound at the upper left sternal border that does not change with respirations. The patient is otherwise active and healthy. Which of the following heart lesion most likely explains these findings?

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- A. Atrial septal defect
- B. Mitral valve prolapse
- C. Tetralogy of Fallot
- D. Ventricular septal defect
- E. Truncus arteriosus

55. A teenager with a history of rheumatic fever complains of fever 38-39°C, abdominal pain, dyspnea, tachycardia. Heart borders are enlarged to the left, systolic and diastolic murmurs above aorta, AP – 140/50 mm Hg. Petechial rash occurs after measurement of blood pressure. Liver is enlarged by 3 cm, spleen is palpable. Urine is brown-yellowish. What is the most likely diagnosis?

- A. Rheumatic fever
- B. Acute nephritis
- C. Acute hepatitis
- D. Infectious endocarditis
- E. Aortic regurgitation

56. A previously well 1-year-old infant has had a runny nose and has been sneezing and coughing for 2 days. Two other members of the family had similar symptoms. Four hours ago, his cough became much worse. On physical examination, he is in moderate respiratory distress with nasal flaring, hyperexpansion of the chest, and easily audible wheezing without rales. Which of the following is the most likely diagnosis?

- A. Bronchiolitis
- B. Viral croup
- C. Asthma
- D. Epiglottitis
- E. Diphtheria

57. An 8-year-old boy fell ill acutely: he presents with fever, weakness, headache, abdominal pain, recurrent vomiting, then diarrhea and tenesmus. Stools occur 12 times daily, are scanty, contain a lot of mucus, pus, streaks of blood. His sigmoid gut is tender and hardened. What is your diagnosis?

- A. Dysentery
- B. Salmonellosis
- C. Cholera
- D. Staphylococcal gastroenteritis
- E. Escherichiosis

58. A mother with an infant visited the pediatrician for expertise advice. Her baby was born with body weight 3,2 kg and body length 50 cm. He is 1 year old now. How many teeth the baby should have?

- A. 10
- B. 12
- C. 20
- D. 8
- E. 6

59. A neonate was born from the 1st gestation on term. The jaundice was revealed on the 2nd day of life, then it became more acute. The adynamia, vomiting and hepatomegaly were observed. Indirect bilirubin level was 275mmol/L, direct bilirubin level - 5mmol/L, Hb - 150 g/l. Mother's blood group – 0(I), Rh+, child's blood group- A(II), Rh+. What is the most probable diagnosis?

- A. Jaundice due to conjugation disorder
- B. Hepatitis
- C. Hemolytic disease of the neonate (ABO incompatibility), icteric type
- D. Physiological jaundice
- E. Hemolytic disease of the neonate (Rh – incompatibility)

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60. A baby boy was born in time, it was his mother's 1st pregnancy. The jaundice was revealed on the 2nd day of life, then it progressed. The adynamia, vomiting and hepatomegaly were presented. The indirect bilirubin level was 275  $\mu\text{mol/L}$ , the direct bilirubin level – 5  $\mu\text{mol/L}$ , Hb- 150 g/L. Mother's blood group - 0(I), Rh+, child's blood group - A(II), Rh+. Make a diagnosis.
- Hemolytic disease of newborn (ABO incompatibility), icteric type
  - Jaundice due to conjugation disorder
  - Hepatitis
  - Physiological jaundice
  - Hemolytic disease of newborn (Rh - incompatibility)
61. A 10-month-old infant has poor weight gain, a persistent cough, and a history of several bouts of pneumonitis. The mother describes the child as having very large, foul-smelling stools for months. Which of the following diagnostic maneuvers is likely to result in the correct diagnosis of this child?
- CT of the chest
  - Serum immunoglobulins
  - TB skin test
  - Inspiratory and expiratory chest X-ray
  - Sweat chloride test
62. A 16-year-old patient presented with body temperature rise up to 38,5°C, pain in the small articulations of hands; face edemata and erythema. Blood count: RBC –  $2,6 \times 10^{12}/\text{l}$ , HGB – 9,8 g/dl, WBC -  $2 \times 10^9/\text{l}$ , ESR – 28mm/h. Urinalysis: protein – 3,1 g/l, RBC-10-15 in the vision field. What disease can be suspected in this case?
- Systemic lupus erythematosus
  - Acute glomerulonephritis
  - Sepsis
  - Systemic scleroderma
  - Periarteritis nodosa
63. A 9-year-old boy has been suffering from bronchoectasis since he was 3. Exacerbations occur quite often, 3-4 times a year. Conservative therapy results in short periods of remission. The disease is progressing, the child is pale, acrocyanotic, he has “watch glass” nail deformation. Bronchography revealed saccular bronchiectases of the lower lobe of his right lung. What is the best treatment approach?
- Physiotherapy
  - Further conservative therapy
  - Surgical treatment
  - Tempering of the child
  - Sanatorium treatment
64. A 3 month old infant suffering from acute segmental pneumonia has dyspnea (respiration rate - 80 per minute), paradoxical breathing, tachycardia, total cyanosis. Respiration and pulse - ratio is 1:2. The heart dullness under normal size. Such signs characterise:
- Respiratory failure of III degree
  - Respiratory failure of I degree
  - Respiratory failure of II degree
  - Myocarditis
  - Congenital heart malformation
65. The 7 m.o. infant is suffering from acute pneumonia which was complicated by cardiovascular insufficiency and respiratory failure of II degree. The accompanied diagnosis is malnutrition of II degree. Choose the best variant of therapy:
- Ampiox and Amicacin
  - Macropen and Penicillin
  - Penicillin and Ampiox

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- D. Gentamycin and Macropen
- E. Ampiox and Polymixin

66. A mother consulted a pediatrician about her son. Her son was born with body mass of 3 kg and length of 48 cm. He's 1 year old now. What is the required normal mass?

- A. 10,5 kg
- B. 9,0 kg
- C. 11,0 kg
- D. 12,0 kg
- E. 15,0 kg

67. In autumn a 15-year-old patient complains of stomach ache that appears in 2 hours after meals and at night time, and constipation. The pain is getting worse after spicy, salty and sour food. The patient has been suffering from this disease for a year. Palpation of the abdomen reveals tenderness in the right epigastrium. What is the most likely diagnosis?

- A. Diaphragmatic hernia
- B. Chronic cholecystitis
- C. Chronic pancreatitis
- D. Stomach ulcer
- E. Duodenal ulcer

68. A 10-year-old patient complains of painful breathing, cough, dyspnea. On examination: fever – 37,6°C, respiratory rate – 19/min, heart rate – 92/min, AP-120/80 mm Hg. Vesicular breathing. In the inferolateral parts of chest auscultation in both – inspiration and expiration phase revealed noise that was getting stronger at stethoscope pressing and can be still heard after cough. ECG showed no pathological changes. What is the most likely diagnosis?

- A. Spontaneous pneumothorax
- B. Pericarditis sicca
- C. Acute pleuritis
- D. Intercostal neuralgia
- E. Subcutaneous emphysema

69. A 12-year-old patient presented with the following symptoms: fever, dyspnea, dry cough, pleural pain, myalgia, arthralgia,. On examination: moist rales on the right, pleural friction rub. X-ray film showed infiltration of the inferior lobe. Blood count: WBC –  $11 \times 10^9 / l$ , band neutrophils – 6%, segmented neutrophils – 70%, lymphocytes – 8%, ESR – 42mm/h. What is the ethiological factor of pneumonia?

- A. Staphylococcus
- B. Legionella
- C. Mycoplasma
- D. Pneumococcus
- E. Streptococcus

70. 6 m.o. infant was born with body's mass 3 kg and length 50 cm. He is given natural feeding. How many times per day the infant should be fed?

- A. 5
- B. 7
- C. 6
- D. 8
- E. 4

71. A 14-year-old boy has rheumatism. Over the last 2 years he has had 3 rheumatic attacks. What course of rheumatism does the patient have?

- A. Prolonged
- B. Acute

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- C. Subacute
  - D. Latent
  - E. Persistent-reccurent
72. A 12 year old child has the ulcer disease of stomach. What is the etiology of this disease?
- A. Intestinal bacillus
  - B. Helicobacter pylory
  - C. Salmonella
  - D. Lambliosis
  - E. Influenza
73. A 6-year-old patient, suffering from asthma, was stung by a bee. He has a sensation of chest compression, breath shortage, difficult expiration, dizziness. On examination: noisy breathing, AP – 90/60mm Hg, Ps – 110 bpm. Auscultation revealed weak, rhythmic heart sounds, diffuse wheezing above lungs. What drugs should be administered primarily?
- A. Analgetics
  - B. Cardiac glycosides
  - C. Glucocorticoids
  - D. Methylxanthines
  - E.  $\beta$ -2-agonists
74. A patient suffering from gastroesophageal reflux has taken from time to time a certain drug that “reduce acidity” over 5 years. This drug was recommended by a pharmacist. The following side effects are observed: osteoporosis, muscle asthenia, constipation. What drug has such effects?
- A. Metoclopramide
  - B. H<sub>2</sub>-blocker
  - C. Aluminium-bearing antacid
  - D. Gastrocepin
  - E. Proton pump inhibitor
75. A nine year old child is at a hospital with acute glomerulonephritis. Clinical and laboratory examinations show acute condition. What nutrients must not be limited during the acute period of glomerulonephritis?
- A. Salt
  - B. Carbohydrates
  - C. Liquid
  - D. Proteins
  - E. Fats
76. A 4-month-old girl with blond hair and blue eyes has "mousy" odor of sweat and urine, delayed psychomotoric development. The most typical laboratory data for this disorder is:
- A. High level of oxyproline in urine
  - B. Positive urine ferric chloride test
  - C. High level of glycosaminoglycanes in urine
  - D. High concentration of chlorides in sweat
  - E. Low level of thyroid gland hormones in blood
77. A neonate is 5 days old. What vaccination dose of BCG vaccine (in mg) is necessary for vaccination of this child?
- A. 0,025 mg
  - B. 0,05 mg
  - C. 0,075 mg
  - D. 0,1 mg
  - E. 0,2 mg

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78. A 17-year-old student is brought to the emergency room complaining of severe pain of 6-8 hours duration. He had been to a party the night before. The pain is in epigastrium, irradiating to the back and is accompanied by nausea. The patient vomited twice prior to coming to the emergency room. Clinical examination revealed that the young man was anxious, with body temperature of 38,2°C, with a regular pulse rate of 100/min and blood pressure of 100/68 mm Hg. What is the most likely diagnosis?

- A. Acute cholecystitis
- B. Acute pancreatitis
- C. Acute diverticulitis
- D. Mesenteric adenitis
- E. Acute appendicitis

79. After supercooling a 10-year-old girl developed muscle pain, dysuria, headache, body temperature rose up to 39°C. On examination – positive Pasternatskiy's symptom. Urinalysis: leukocyturia, bacteriuria. Blood count: HGB-10,3g/dl, left shift leukocytosis, ESR – 32mm/h. Blood urea – 6 mmol/l. What is the most likely diagnosis?

- A. Acute pyelonephritis
- B. Acute cystitis
- C. Acute glomerulonephritis
- D. Urolithiasis
- E. Renal tuberculosis

80. On the second day after preventive vaccination a 2-year-old boy presented with abdominal pain, body temperature rose up to 38°C. On the third day the child got red papular haemorrhagic eruption on the extensor surfaces of limbs and around the joints. Knee joints were edematous and slightly painful. Examination of other organs and systems revealed no pathological changes. What is the most likely diagnosis?

- A. Thrombocytopenic purpura
- B. Urticaria
- C. Haemorrhagic vasculitis (Henoch-Schonlein purpura)
- D. DIC syndrome
- E. Meningococemia

81. 7 y.o. boy with chronic sinusitis and recurrent pulmonary infections has chest X-ray demonstrating a right-sided cardiac silhouette. What is the most likely diagnosis?

- A. Kartagener syndrome
- B. Cystic fibrosis (mucoviscidosis)
- C. Bronchiolitis obliterans
- D. Laryngotracheomalacia
- E. Alpha1-antitrypsin deficiency

82. A 2 month old healthy infant with good appetite is given artificial feeding since he turned 1 month old. When is it recommended to start the corrective feeding (fruit juice)?

- A. 1,5 months
- B. 2,0 months
- C. 4,0 months
- D. 3,0 months
- E. 1,0 months

83. An infant was born with body mass 3 kg and body length 50 cm. Now he is 3 years old. His brother is 7 years old, suffers from rheumatic fever. Mother asked the doctor for a cardiac check up of the 3-year-old son. Where is the left relative heart border located?

- A. 1 cm right from the left medioclavicular line
- B. 1 cm left from the left medioclavicular line
- C. Along the left medioclavicular line

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- D. 1 cm left from the left parasternal line
- E. 1 cm right from the left parasternal line

84. A 16-year-old girl came to the emergency room complaining of a sudden onset of the epigastric and right upper quadrant pain, radiating to the back, accompanied by vomiting. On examination, tenderness is elicited in the right upper quadrant, bowel sounds are decreased, and laboratory data shows leukocytosis, normal serum levels of amylase, lipase and bilirubin. What is the most likely diagnosis?

- A. Acute gastritis
- B. Acute pancreatitis
- C. Acute cholecystitis
- D. Perforated peptic ulcer disease
- E. Sigmoid diverticulitis

85. A 10-year-old girl was admitted to a hospital with carditis presentation. It is known from the anamnesis that 2 weeks ago she had exacerbation of chronic tonsillitis. What is the most likely etiological factor in this case?

- A. Staphylococcus
- B. Klebsiella
- C. Pneumococcus
- D. Streptococcus
- E. Proteus

86. A boy of 7 y.o. had an attack of asthma and distant whistling rales after playing with a dog. In the medical history: atopic dermatitis caused by eating eggs, chicken, beef. What group of allergens is the reason of the development of bronchial asthma attacks?

- A. Epidermal
- B. Dust
- C. Pollen
- D. Itch mite
- E. Chemical

87. A full term infant was born after a normal pregnancy, delivery, however, was complicated by marginal placental detachment. At 12 hours of age the child, although appearing to be in good health, passes a bloody meconium stool. For determining the cause of the bleeding, which of the following diagnostic procedures should be performed first?

- A. An Apt test
- B. Gastric lavage with normal saline
- C. Barium enema
- D. An upper gastrointestinal series
- E. Platelet count, prothrombin time, and partial thromboplastin time

88. In the 43rd week of gestation a long, thin infant was delivered. He is apneic, limp, pale, and covered with "pea soup" amniotic fluid. The first step in the resuscitation of this infant at delivery should be:

- A. Artificial ventilation with bag and mask
- B. Suction of the trachea under direct vision
- C. Artificial ventilation with endotracheal tube
- D. Administration of 100% oxygen by mask
- E. Catheterization of the umbilical vein

89. A man, 42 years old, died in a road accident after the hemorrhage on the spot, because of acute hemorrhagic anemia. What minimum percent of the whole blood volume could result in death by acute hemorrhage?

- A. 25-30%

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- B. 6-9%
- C. 10-14%
- D. 15-20%
- E. 35-50%

90. A 14-year-old boy suffers from rheumatic fever. Over the last 2 years he has had 3 rheumatic attacks. What course of the disease does the patient have?

- A. Subacute
- B. Prolonged
- C. Latent
- D. Acute
- E. Persistent-recurrent

91. An 18-month-old child was admitted to the hospital on the 4th day of the disease. The disease began acutely with fever 39°C, weakness, cough, breathlessness. He is pale and cyanotic. There are crepitative fine bubbling rales on auscultation. Percussion sound is shortened in the right infrascapular region. X-ray film shows non-homogeneous segment infiltration 8-10mm in the right lower lobe. What is the diagnosis?

- A. Influenza
- B. Segmentary pneumonia
- C. Bronchiolitis
- D. Bronchitis
- E. Interstitial pneumonia

92. A patient with urolithiasis had an attack of renal colic. What is the mechanism of the attack development?

- A. Increase in relative density of urine
- B. Ureteric twists
- C. Disturbed urine outflow from the kidney
- D. Renal artery spasm
- E. Destruction of glomerules

93. A newborn infant has mild cyanosis, diaphoresis, poor peripheral pulse, hepatomegaly and cardiomegaly. Respiratory rate is 60 breaths per minute, and heart rate is 230 beats per minute. The child most likely has congestive heart failure caused by:

- A. Paroxysmal atrial tachycardia
- B. A ventricular septal defect and transposition of the great vessels
- C. Atrial flutter and partial atrioventricular block
- D. Hypoplastic left heart syndrome
- E. A large atrial septal defect and valvular pulmonary stenosis

94. A 7 d.o. boy is admitted to the hospital for evaluation of vomiting and dehydration. Physical examination is otherwise normal except for minimal hyperpigmentation of the nipples. Serum sodium and potassium concentrations are 120 meq/L and 9 meq/L respectively. The most likely diagnosis is:

- A. Pyloric stenosis
- B. Secondary hypothyroidism
- C. Congenital adrenal hyperplasia
- D. Panhypopituitarism
- E. Hyperaldosteronism

95. A 7 y.o. boy has crampy abdominal pain and a rash on the back of his legs and buttocks as well as on the extensor surfaces of his forearms. Laboratory analysis reveals proteinuria and microhematuria. He is most likely to be affected by:

- A. Systemic lupus erythematosus
- B. Anaphylactoid purpura

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- C. Poststreptococcal glomerulonephritis
- D. Polyarteritis nodosa
- E. Dermatomyositis

96. The girl of 11 y.o. She is ill for 1 month. She has "butterfly"-type rash on face (spots and papules), pain and swelling of small joints on arms and legs, signs of stomatitis (small-sized ulcers in mouth). CBC: Hb– 80 g/L, RBC– 2,91012/L, WBC– 15109/L, ESR- 40 mm/hour. Urinalysis: protein– 0,33 g/L. What is the most probable diagnosis?

- A. Systemic lupus erythematosus
- B. Juvenile rheumatoid arthritis, systemic type
- C. Periarteriitis nodosa
- D. Acute rheumatic fever
- E. Dermatomyositis

97. A newborn aged 3 days with hyperbilirubinemia (428 mkmol/L) developed following disorders. From beginning there were severe jaundice with poor suckling, hypotonia and hypodynamia. Little bit later periodical excitation, neonatal convulsions and neonatal primitive reflexes loss are noted. Now physical examination reveals convergent squint, rotatory nystagmus and setting sun eye sign. How to explain this condition?

- A. Skull injury
- B. Brain tumour
- C. Hydrocephalus
- D. Encephalopathy due to hyperbilirubinemia
- E. Spastic cerebral palsy

98. A 4 year old girl was playing with her toys and suddenly she got an attack of cough, dyspnea. Objectively: respiration rate - 45/min, heart rate - 130/min. Percussion revealed dullness of percutory sound on the right in the lower parts. Auscultation revealed diminished breath sounds with bronchial resonance on the right. X-ray picture showed shadowing of the lower part of lungs on the right. Blood analysis revealed no signs of inflammation. The child was diagnosed with foreign body in the right bronchus. What complication caused such clinical presentations?

- A. Emphysema
- B. Pneumothorax
- C. Atelectasis
- D. Bronchitis
- E. Pneumonia

99. 2 weeks after recovering from angina an 8-year-old boy developed edema of face and lower limbs. On examination: the general condition is severe, AP -120/80 mm Hg. Urine is of dark- brown colour. Oliguria is present. Urinalysis: specific gravity – 1015, protein – 1,2 g/l, changed RBC cover the whole vision field, granular casts – 1-2 in the vision field, salts are represented by urates. What is the most likely diagnosis?

- A. Acute glomerulonephritis with nephrotic syndrome
- B. Acute glomerulonephritis with nephrotic syndrome, hematuria and hypertension
- C. Acute glomerulonephritis with nephritic syndrome
- D. Acute pyelonephritis
- E. Acute glomerulonephritis with isolated urinary syndrome

100. A boy is 8 year old. His physical development is compliant with his age. The child has had cardiac murmur since birth. On examination: skin and visible mucous membranes are of normal colour. AP – 100/70 mm Hg. Auscultation revealed systolodiastolic murmur and diastolic shock above the pulmonary artery. ECG shows overload of the left heart. X-ray film shows coarsening of the lung pattern and normal heart shadow. What is the most likely diagnosis?

- A. Atrioseptal defect
- B. Coarctation of aorta

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- C. Tetralogy of Fallot
- D. Pulmonary artery stenosis
- E. Patent ductus arteriosus.

101. A 14-year-old patient complains of numbness of II-IV fingers, muscle rigidity. The patient presents also with polyarthralgia, masklike face, solid edema of hands. The heart is enlarged. Laboratory data: ESR – 20 mm/h, total protein – 86 g/l,  $\gamma$ -globulin – 26%. What is the most likely diagnosis?

- A. Rheumatoid arthritis
- B. Dermatomyositis
- C. Raynaud's disease
- D. Systemic scleroderma
- E. Systemic lupus erythematosus

102. Full term newborn has developed jaundice at 10 hours of age. Hemolytic disease of newborn due to Rh-incompatibility was diagnosed. 2 hours later the infant has indirect serum bilirubin level increasing up to 14 mmol/L. What is most appropriate for treatment of hyperbilirubinemia in this infant?

- A. Phototherapy
- B. Phenobarbital
- C. Exchange blood transfusion
- D. Intestinal sorbents
- E. Infusion therapy

103. A 6 week old child is admitted because of tachypnea. Birth had been uneventful, although conjunctivitis developed on the third day of life and lasted for about 2 weeks. Physical examination reveals tachypnea, bilateral inspiratory crackles and single expiratory wheezing. Bilateral pneumonia is evident on chest X-ray. The child is afebrile and has no history of fever. White blood cell count is 15109/l, with 28% of eosinophils. The most likely cause of this child's symptoms is:

- A. Clamydia trachomatis
- B. Pneumocystis carinii
- C. Mycoplasma pneumoniae
- D. Visceral larva migrans
- E. Varicella

104. A 6 y.o. asthmatic child was taken to the emergency hospital because of severe coughing and wheezing for the last 24 hours. Physical examination reveals that the child is excitable, has intercostal and suprasternal retractions, expiratory wheezing throughout all lung fields, RR- 60/min. Initial treatment may include the prescription of:

- A. Parenteral phenobarbital
- B. Subcutaneous epinephrine
- C. Intravenous fluids in the first 2 h to compensate water deficiency
- D. N-acetyl cysteine and cromolyn by inhalation
- E. Parenteral gentamicin

105. A 3-year-old child has been admitted to a hospital because of ostealgia and body temperature rise up to 39°C. Objectively: the patient is in grave condition, unable to stand for ostealgia, there is apparent intoxication, lymph nodes are enlarged up to 1,5 cm. Liver can be palpated 3 cm below the costal margin, spleen - 2 cm below the costal margin. In blood: RBCs - 3,01012/l, Hb- 87 g/l, colour index - 0,9, thrombocytes - 190109/l, WBCs - 3,2109/l, eosinophils - 1, stab neutrophils - 1, segmented neutrophils - 0, lymphocytes - 87, monocytes - 2, ESR - 36 mm/h. What examination should be conducted in order to specify the diagnosis?

- A. Ultrasound
- B. Lymph node puncture
- C. Lymph node biopsy

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- D. Computer tomography
- E. Sternal puncture

106. A patient with acquired heart failure has diastolic pressure of 0 mm Hg. What heart disorder most likely caused the problem with blood pressure?

- A. Mitral valve stenosis
- B. Mitral valve insufficiency
- C. Aortic valve stenosis
- D. Aortic valve insufficiency
- E. Mitral valve prolapse

107. A 4-year-old boy was brought to the emergency room with a 3-hour history of fever up to 39,5°C and sore throat. The child looks alert, anxious and has a mild inspiratory stridor. You should immediately:

- A. Start with oxygen supply
- B. Obtain an arterial blood gas
- C. Take a throat swab
- D. Place the child in a mist tent
- E. Order a chest X-ray

108. An infant aged 1 year on the third day of common cold at night developed inspiratory stridor, hoarse voice and barking cough. Physical examination revealed suprasternal and intercostal chest retractions. There is a bluish skin discoloration mostly seen over the upper lip. The respiratory rate is 52 per min and pulse- 122 bpm. The body temperature is 37,50C. What disease does the infant have?

- A. Acute infectious croup due to viral laryngotracheitis
- B. Acute laryngitis
- C. Bronchopneumonia without complications
- D. Acute bronchiolitis with respiratory distress
- E. Acute epiglottitis

109. Examination of a 9-month-old girl revealed skin pallor, cyanosis during excitement. Percussion revealed transverse dilatation of cardiac borders. Auscultation revealed continuous systolic murmur on the left from the breastbone in the 3-4 intercostal space. This murmur is conducted above the whole cardiac region to the back. What congenital cardiac pathology can be suspected?

- A. Defect of interventricular septum
- B. Defect of interatrial septum
- C. Coarctation of aorta
- D. Fallot's tetrad
- E. Pulmonary artery stenosis

110. A 13 y.o. patient was treated in dermatological hospital for atopic dermatitis exacerbation. He was discharged in the condition of clinical remission. What recommendations should the doctor give to prevent exacerbations?

- A. Frequent skin washing with detergents
- B. Systematic use of local corticosteroids
- C. Use of neutral creams to protect skin
- D. Systematic skin disinfection
- E. Avoidance of skin insolation

111. A young patient who came to a polyclinic was diagnosed with the 1 stage of hypertension. How often should he undergo the medical check-up?

- A. 4 times a year
- B. 3 times a year
- C. 5 times a year
- D. twice a year

E. once a year

112. During examination at a military commissariat a 15-year-old teenager was found to have systolic murmur on the apex of the heart, diastolic click over the pulmonary artery, tachycardia. What examination method will be the most informative for the diagnosis specification?

- A. Roentgenography
- B. Phonocardiography
- C. Electrocardiography
- D. Echocardiography
- E. Rheography

113. Apgar test done on a newborn girl at 1st and 5th minute after birth gave the result of 7-8 scores. During the delivery there was a short-term difficulty with extraction of shoulder girdle. After birth the child had the proximal extremity dysfunction and the arm couldn't be raised from the side. The shoulder was turned inwards, the elbow was flexed, there was also forearm pronation, obstetric palsy of brachial plexus. What is the clinical diagnosis?

- A. Duchenne-Erb palsy
- B. Trauma of thoracic spine
- C. Right hand osteomyelitis
- D. Intracranial haemorrhage
- E. Trauma of right hand soft tissues

114. On the 21 day after appearance of vesiculous chickenpox rash a 7-year-old child developed ataxia, nystagmus, intention tremor, muscle hypotonia. Liquor analysis shows insignificant lymphocytic pleocytosis, slightly increased protein rate. What complication is it?

- A. Purulent meningitis
- B. Pneumonitis
- C. Encephalitis
- D. Acute nephritis
- E. Postherpetic neuralgia

115. A worker was temporarily off work because of illness for 16 days, was under out-patient treatment. The doctor in charge issued a sick-list first for 5 days, then prolonged it for 10 days. Who can further prolong the sick-list of this patient?

- A. The doctor in charge of the case together with the head of department
- B. Working ability expertise committee
- C. The doctor in charge of the case with the permission of the head of department
- D. Deputy head physician on the working ability expertise
- E. The head of department

116. A patient complains of pain and morning stiffness of hand joints and temporomandibular joints . On examination: edema and limited motions of proximal interphalangeal joints. What examination is the most important for the diagnosis?

- A. Complete blood count
- B. Roentgenography of hands
- C. Proteinogram
- D. Immunogram
- E. Cytogenetic

117. On the 4th day after recovery from a cold a patient was hospitalized with complaints of discharged of about 250 ml of purulent blood-streaked sputum. On examination: patient's condition is moderately severe. Respiratory rate – 30/min, Ps – 96 bpm, AP – 110/70 mm Hg. There are moist rales above the lower lobe of the right lung and amphoric breath near the angle of a scapula. What is the most likely diagnosis?

- A. Pleurisy

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- B. Acute pulmonary abscess
- C. Pleural empyema
- D. Pyopneumothorax
- E. Acute focal pneumonia

118. Where is localized the left relative heart border of a 3-year-old child?

- A. 1 cm left from the left medioclavicular line
- B. 1 cm left from the left parasternal line
- C. 1 cm right from the left parasternal line
- D. On the left medioclavicular line
- E. 1 cm right from the left medioclavicular line

119. After objective clinical examination a 12 year old child was diagnosed with mitral valve prolapse. What complementary instrumental method of examination should be applied for the diagnosis confirmation?

- A. Echocardiography
- B. Roentgenography of chest
- C. Phonocardiography
- D. ECG
- E. Veloergometry

120. A 15 y.o. boy was twice attacked by bees, as a result he had severe anaphylactic shock. What is the most effective prophylaxis method?

- A. Desensibilisation by means of bee venom extract
- B. Prescription of corticosteroids for summer
- C. Long-term prophylactic treatment with antihistamines
- D. Limitation of outside staying during summer months
- E. Protective clothing

121. An 8 year old boy suffering from haemophilia was undergoing transfusion of packed red cells. Suddenly he got pain behind the breastbone and in the lumbar area, dyspnea, cold sweat. Objectively: pale skin, heart rate - 100/min, AP- 60/40 Hg; oliguria, brown urine. For treatment of this complication the following drug should be administered:

- A. Prednisolone
- B. Lasix
- C. Adrenaline
- D. Aminophylline
- E. Analgine

122. A 9-year-old boy has been suffering from bronchoectasis since he was 3. Exacerbations occur quite often, 3-4 times a year. Conservative therapy results in short periods of remission. The disease is progressing, the child has physical retardation. The child's skin is pale, acrocyanotic, he has "watch glass" nail deformation. Bronchography revealed saccular bronchiectases of the lower lobe of his right lung. What is the further treatment tactics?

- A. Surgical treatment
- B. Further conservative therapy
- C. Physiotherapeutic treatment
- D. Sanatorium-and-spa treatment
- E. Tempering of the child's organism

123. By means of standard sera a physician determined a patient's blood group and got the following results: 0(I) – no agglutination, A(II) – no agglutination, B(III) – no agglutination. What is the patient's blood group?

- A. B(III)
- B. AB (IV)

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- C. A (II)
- D. 0 (I)
- E. Rh (-)

124. An 11-year-old girl complains of pain in the lumbar region, nausea, vomiting, frequent urination, febrile fever. On examination: the abdomen is soft, positive Pasternatskiy's sign. Urinalysis revealed leukocyturia, bacteriuria. What is the most likely diagnosis?

- A. Acute vulvovaginitis
- B. Acute pyelonephritis
- C. Acute appendicitis
- D. Acute glomerulonephritis
- E. Acute cystitis

125. A 15-year-old boy presents with facial edema, moderate back pain, subfebrile fever, AP – 150/100 mm Hg, hematuria (100 RBC in a field), proteinuria (2 g/l), hyaline casts (10 in a field), specific gravity – 1020. The onset of the disease is connected with acute tonsillitis 2 weeks ago. What is the most likely diagnosis?

- A. Urolithiasis
- B. Chronic glomerulonephritis
- C. Acute glomerulonephritis
- D. Acute pyelonephritis
- E. Acute cystitis

126. An 8 year old boy suffering from haemophilia was undergoing transfusion of packed red cells. Suddenly he got pain behind the breastbone and in the lumbar area, dyspnea, cold sweat. Objectively: pale skin, heart rate - 100/min, AP- 60/40 Hg; oliguria, brown urine. For treatment of this complication the following drug should be administered:

- A. Prednisolone
- B. Lasix
- C. Adrenaline
- D. Aminophylline
- E. Analgine

127. A child with tetralogy of Fallot is most likely to exhibit:

- A. Increased pressure in the right ventricle
- B. Increased pulmonary blood flow
- C. Increased pulse pressure
- D. Normal pressure gradient across the pulmonary valve
- E. Normal oxygen tension (PaO<sub>2</sub>) in the left ventricle

128. A 10 y.o. boy with hemophilia has signs of acute respiratory viral infection with fever. What of the mentioned antifebrile medications are contraindicated to this patient?

- A. Analgin
- B. Pipolphen
- C. Paracetamol
- D. Acetylsalicylic acid
- E. Panadol extra

129. A 5-year-old girl with the transitory immunodeficiency according to T-system has a clinical picture of a right-sided pneumonia during 2 months. How pneumonia progress can be described?

- A. Recidivating
- B. Delaying
- C. Chronic
- D. Wavelike
- E. Acute

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130. A child is 4 years old, has been ill for 5 days. There are complaints of cough, skin rash, to-38,2oC, face puffiness, photophobia, conjunctivitis. Objectively: there is bright, maculo-papulous, in some areas confluent rash on the face, neck, upper chest. The pharynx is hyperemic. There are seropurulent discharges from the nose. Auscultation revealed dry rales in lungs. What is the most likely diagnosis?

- A. Measles
- B. Adenoviral infection
- C. Scarlet fever
- D. Rubella
- E. Enterovirus exanthema

131. A 7-year-old child is sick for 2 weeks with running nose, was taking nasal drops. The boy suffers with alimentary allergy. He applied to doctor due to suppurative and bloody discharges from nose, maceration of ala nasi and upper lip. Rhinoscopy results: there are whitish-greyish areas at nasal septum. Mucous membrane of oropharynx is not changed. What is the most probable disease?

- A. Adenovirus
- B. Rhinovirus
- C. Diphtheria of the nose
- D. Allergic rhinitis
- E. Sinusitis (maxillar sinus)

132. A 3 year old child with weight deficiency suffers from permanent moist cough. In history there are some pneumonias with obstruction. On examination: distended chest, dullness on percussion over the lower parts of lungs. On auscultation: a great number of different rales. Level of sweat chloride is 80 millimol/l. What is the most probable diagnosis?

- A. Bronchial asthma
- B. Mucoviscidosis (cystic fibrosis)
- C. Recurrent bronchitis
- D. Bronchiectasis
- E. Pulmonary hypoplasia

133. A full-term infant is 3 days old. On the different parts of skin there are erythemas, erosive spots, cracks, areas of epidermis peeling. The infant has scalded skin syndrome. Nikolsky's symptom is positive. General condition of the infant is grave. Anxiety, hyperesthesia, febrile temperature are evident. What is the most probable diagnosis?

- A. Phlegmon of newborn
- B. Finger's pseudofurunculosis
- C. Exfoliative dermatitis
- D. Impetigo neonatorum
- E. Mycotic erythema

134. District pediatrician examines a healthy carried 1-month-old child. The child is breast-fed. Prophylaxis of what disease will the doctor recommend to do first?

- A. Anemia
- B. Hypotrophia
- C. Rachitis
- D. Spasmophilia
- E. Parathropy

135. A 6-year old otherwise healthy child came to the outpatient clinic for general check up with a family doctor. Physical examination reveals no abnormalities, but his mother is complaining of her son holds the book too close to his eyes while reading and also sitting so close to the TV set. What is the doctor tactic?

- A. Recommend the child to sit far from TV

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- B. Recommend the child to keep eyes far from book
- C. Send the patient to ophthalmologist
- D. Request to come back in a month
- E. Atropine eye drops

136. A 7 y.o. boy has been treated in a hospital for a month. At the time of admission he had evident edemata, proteinuria - 7,1 g/L, protein content in the daily urine - 4,2 g. Biochemical blood analysis reveals permanent hypoproteinemia (43,2 g/L), hypercholesterolemia (9,2 mmol/L). What variant of glomerulonephritis is the most probable?

- A. Nephrotic
- B. Nephritic
- C. Isolated urinary
- D. Hematuric
- E. Mixed

137. A 3 y.o. girl has had a temperature rise up to 38°C, rhinitis, dry superficial cough, flabbiness, appetite loss. Palpation didn't reveal any changes over her lungs. Percussion sound has a wooden resonance, auscultation revealed puerile breathing, no rales. In blood: leukopenia, lymphocytosis, increased ESR. What is the most probable diagnosis?

- A. Acute obstructive bronchitis
- B. Recurrent bronchitis, acute condition
- C. Acute simple tracheitis
- D. Acute simple bronchitis
- E. Bilateral microfocal pneumonia

138. A 7-year-old child is sick for 2 weeks with running nose, was taking nasal drops. The boy suffers with alimentary allergy. He applied to doctor due to suppurative and bloody discharges from nose, maceration of ala nasi and upper lip. Rhinoscopy results: there are whitish-greyish areas at nasal septum. Mucous membrane of oropharynx is not changed. What is the most probable disease?

- A. Adenovirus
- B. Rhinovirus
- C. Diphtheria of the nose
- D. Allergic rhinitis
- E. Sinusitis (maxillar sinus)

139. A 12 y.o. girl took 2 pills of aspirine and 4 hours later her body temperature raised up to 39-40°C. She complains of general indisposition, dizziness, sudden rash in form of red spots and blisters. Objectively: skin lesions resemble of second-degree burns, here and there with erosive surface or epidermis peeling. Nikolsky's symptom is positive. What is the most probable diagnosis?

- A. Pemphigus vulgaris
- B. Polymorphous exudative erythema
- C. Acute epidermal necrosis
- D. Bullous dermatitis
- E. Dühring's disease

140. A 5-year-old child had an attack of palpitation with nausea, dizziness, generalized fatigue. On ECG: tachycardia with heartbeat rate of 220/min. Ventricle complexes are deformed and widened. P wave is absent. What medication is to be prescribed to provide first aid?

- A. Isoptin
- B. Seduxen
- C. Lydocain
- D. Novocainamides
- E. Strophantin

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141. Examination of a 4 month old child revealed some lemon-yellow squamae with fatty crusts on the scalp. What is the most probable diagnosis?
- A. Milk crust
  - B. Strophulus
  - C. Pseudofurunculosis
  - D. Infantile eczema
  - E. Gneiss
142. A 3 year old boy was seen by the doctor on a routine check up. The boy is healthy. Physical examination was unremarkable. The child is active and alert. Breathing rate and heart rate is normal. Height and weight are apt for age. Vision and hearing tests are negative. There is no anemia. He has received immunizations as per the schedule. The only problem is that he fears monsters during sleep. Your best advise for the parents to overcome the problem:
- A. Rationalize that monsters don't exist
  - B. Read books that do not have monsters in them
  - C. Calm down the child every time he is awoken with cry
  - D. Use "monster spray" power to keep monsters away
  - E. All of the above
143. A neonate from gestation with severe gestosis of the second half was born on the 41st week with 2400 g birth weight and 50cm long. On physical examination: skin is flaccid, subcutaneous fatty cellular tissue is thin, muscle hypotonia, new-born period reflexes are decreased. Internal organs are without pathological changes. How would you estimate this child?
- A. Term infant with pre-natal growth retardation
  - B. Premature infant
  - C. Immature infant
  - D. Postmature infant
  - E. Term infant with normal body weight
144. A child was taken to a hospital with focal changes in the skin folds. The child was anxious during examination, examination revealed dry skin with solitary papulous elements and ill-defined lichenification zones. Skin eruption was accompanied by strong itch. The child usually feels better in summer, his condition is getting worse in winter. The child has been artificially fed since he was 2 months old. He has a history of exudative diathesis. Grandmother by his mother's side has bronchial asthma. What is the most likely diagnosis?
- A. Contact dermatitis
  - B. Seborrheal eczema
  - C. Atopic dermatitis
  - D. Strophulus
  - E. Urticaria
145. A boy, aged 9, was examined: height - 127 cm (-0,36), weight - 28,2 kg (+0,96), chest circumference - 64,9 cm (+0,66), lung vital capacity - 1520 ml (-0,16). What is the complex assessment of the child's physical development?
- A. Disharmonious
  - B. Apparently disharmonious
  - C. Harmonious
  - D. Excessive
  - E. Below the average
146. 2 weeks after recovering from angina an 8-year-old boy developed edemata of face and lower limbs. Objectively: the patient is in grave condition, AP- 120/80 mm Hg. Urine is of dark brown colour. Oliguria is present. On urine analysis: relative density - 1,015, protein -1,2 g/l, RBCs are leached and cover the whole vision field, granular casts - 1-2 in the vision field, salts are represented by urates (big number). What is the most likely diagnosis?

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- A. Acute glomerulonephritis with nephrotic syndrome
- B. Acute glomerulonephritis with nephrotic syndrome, hematuria and hypertension
- C. Acute glomerulonephritis with nephritic syndrome
- D. Acute glomerulonephritis with isolated urinary syndrome
- E. Nephrolithiasis

147. A 4 month old child fell seriously ill: body temperature rose up to 38,5oC, the child became inert and had a single vomiting. 10 hours later there appeared rash over the buttocks and lower limbs in form of petechiae, spots and papules. Some haemorrhagic elements have necrosis in the centre. What is the most probable disease?

- A. Rubella
- B. Influenza
- C. Meningococemia
- D. Haemorrhagic vasculitis
- E. Scarlet fever

148. During a routine child visit, a 2 y.o. boy has no structural abnormalities and no significant medical illnesses. On physical examination there are dysmorphic features of the face, pulse is 100 bpm, normal blood pressure, thyroid gland is not enlarged, heart, lung and abdomen are also normal. Height and weight are just at the 3rd percentile. Eyes examination revealed mild hypermetropia and with no visible structural abnormalities. It was noted that child walks well but doesn't run, doesn't use a pencil and speaks only single words. What is the best approach to the child above?

- A. Recommend a chromosomal evaluation
- B. Recommend consultation by endocrinologist
- C. Opthamologic consultation
- D. Psychologist consultation
- E. All the above

149. A 5-year-old child had strong headache, vomiting, ataxy, dormancy, discoordination of movements, tremor of the extremities on the 8th day of the disease. It was followed by rise in body temperature, vesiculosis rash mainly on the skin of the body and the hairy part of the head. At the second wave of the fever a diagnosis of encephalitis was given. What disease complicated encephalitis in this case?

- A. Chicken pox
- B. Measles
- C. German measles
- D. Enterovirus ifection
- E. Herpetic infection

150. A 13 year old girl was admitted to the cardiological department because of pain in the muscles and joints. Examination of her face revealed an edematic erythema in form of butterfly in the region of nose bridge and cheeks. What is the most probable diagnosis?

- A. Rheumatic fever
- B. Dermatomyositis
- C. Systemic lupus erythematosus
- D. Rheumatoid arthritis
- E. Periarteritis nodosa

151. A 4 y.o. boy was admitted to the hospital with complaints of dyspnea, rapid fatigability. His anamnesis registers frequent respiratory diseases. On percussion: heart borders are dilatated to the left and upwards. On auscultation: amplification of the SII above pulmonary artery, a harsh systolodyastolic "machine" murmur is auscultated between the II and the III rib to the left of breast bone, this murmur is conducted to all other points including back. AP is 100/20 mm Hg. What is the most probable diagnosis?

- A. Interventricular septal defect

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- B. Isolated stenosis of pulmonary arterial orifice
- C. Opened arterial duct
- D. Interatrial septal defect
- E. Valvar aortic stenosis

152. A 12 year old girl complains about abrupt weakness, nausea, dizziness, vision impairment. The day before she ate home-made stockfish, beef. Examination revealed skin pallor, a scratch on the left knee, dryness of mucous membranes of oral pharynx, bilateral ptosis, mydriatic pupils. The girl is unable to read a simple text (mist over the eyes). What therapy would be the most adequate in this case?

- A. Parenteral disintoxication
- B. Parenteral introduction of antibiotics
- C. Parenteral introduction of polyvalent antitoxin serum
- D. Gastric lavage
- E. Parenteral introduction of antitetanus serum

153. A child from the first non-complicated pregnancy but complicated labor had cephalhematoma. On the second day there developed jaundice. On the 3th day appeared changes of neurologic status: nystagmus, Graefe's sign. Urea is yellow, feces- golden-yellow. Mother's blood group is A(II)Rh-, child- A(II)Rh+. On the third day child's Hb is 200 g/L, RBC- 6,11012/L, bilirubin in blood - 58 mk mol/L due to unconjugated bilirubin, Ht- 0,57. What is the child's jaundice explanation?

- A. Physiologic jaundice
- B. Hemolytic disease of newborn
- C. Brain delivery trauma
- D. Bile ducts atresia
- E. Fetal hepatitis

154. A 9 year old boy came to doctor for his normal follow-up visit. He asked to doctor about his skin rash that he had had 2 weeks ago after eating a new brightly blue candy. The rash was very itchy with a wheal formation. It disappeared on the next day. What should the doctor advise?

- A. Check for skin allergy
- B. Advise the child do not eat any candies for a while
- C. Refer to dermatologist
- D. Check for scabies
- E. Advise the child to do not eat this particular candy

155. An infant is 2 d.o. It was full-term born with signs of intrauterine infection, that's why it was prescribed antibiotics. Specify, why the gap between antibiotic introductions to the new-born children is longer and dosage is smaller compared to the older children and adults?

- A. The newborns have a lower level of glomerular filtration
- B. The newborns have lower concentration of protein and albumins in blood
- C. The newborns have reduced activity of glucuronil transferase
- D. The newborns have diminished blood pH
- E. The newborns have bigger hematocrit

156. A 10-year-old child is sick with chronic viral hepatitis B with marked activity of the process. Total bilirubin - 70mmol/L, direct - 26mmol/L, indirect - 44mmol/L. AST - 6,2 mmol/L, ALT - 4,8 mmol/L. What mechanism underlies the transaminase level increase of this patient?

- A. Failure of the synthetical function of the liver
- B. Cytolysis of hepatocytes
- C. Hypersplenism
- D. Intrahepatic cholestasis
- E. Failure of bilirubin conjugation

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157. A 12-year-old girl applied to doctor with complaints of swelling on the front part of the neck. The doctor diagnosed hyperplasia of the thyroid gland of the second degree, euthyroidism. Ultrasound suspected autoimmune thyroiditis. Blood was taken for titre of antibodies to thyroglobulin. What titre of antibodies will be diagnostically important?

- A. 1:100
- B. 1:50
- C. 1:150
- D. 1:200
- E. 1:250

158. A 14-year-old girl has been presenting with irritability and tearfulness for about a year. A year ago she was also found to have diffuse enlargement of the thyroid gland (II grade). This condition was regarded as a pubertal manifestation, the girl didn't undergo any treatment. The girl's irritability gradually gave place to a complete apathy. The girl got puffy face, soft tissues pastosity, bradycardia, constipations. Skin pallor and gland density progressed, the skin got a waxen hue. What disease may be assumed?

- A. Diffuse toxic goiter
- B. Thyroid carcinoma
- C. Autoimmune thyroiditis
- D. Subacute thyroiditis
- E. Juvenile basophilism

159. A pediatrician had a conversation with a mother of a 7-month-old breast-fed boy and found out that the child was fed 7 times a day. How many times should the child of such age be fed?

- A. 3 times
- B. 4 times
- C. 5 times
- D. 6 times
- E. 7 times

160. In the anamnesis of a 2-year-old girl there are recurrent pneumonias with signs of obstruction. There are heterogeneous moist and dry rales, respiration is weakened. Dense, viscous secretion is difficult to hawk. There are "drumsticks", physical retardation. What is the most probable diagnosis?

- A. Recidivating bronchitis
- B. Bronchial asthma
- C. Mucoviscidosis, pulmonary form
- D. Congenital pulmonary polycystosis
- E. Pulmonary tuberculosis

161. A 2 month old full-term child was born with weight 3500 g and was on the mixed feeding. Current weight is 4900 g. Evaluate the current weight of the child:

- A. 150 g less than necessary
- B. Hypotrophy of the I grade
- C. Corresponding to the age
- D. Hypotrophy of the II grade
- E. Paratrophy of the I grade

162. A 5 month old boy was born prematurely, he didn't suffer from any disease at the infant age and later on. Examination at an outpatient's hospital revealed paleness of skin, sleepiness. Blood count: Hb - 95 g/l, erythrocytes - 3,51012/l, reticulocytes - 90/00, colour index - 0,7, osmotic stability of erythrocytes - 0,44-0,33%, serum iron - 4,9 micromole/l. What is the most probable cause of anemia?

- A. Hemogenesis immaturity
- B. Infectious process
- C. Iron deficit
- D. Erythrocyte hemolysis

E. B12 deficit

163. A 7 y.o. child had elevation of temperature to 40°C in anamnesis. For the last 3 months he presents fusiform swelling of fingers, ankle joints and knee joint, pain in the upper part of the sternum and cervical part of the spinal column. What is the most probable diagnosis?

- A. Rheumatism
- B. Toxic synovitis
- C. Juvenile rheumatic arthritis
- D. Septic arthritis
- E. Osteoarthritis

164. A mother brought her 5 year old boy who has received all necessary vaccinations, for regular hospital checkups. On history taking the child has no significant complaints. Child growth and development is satisfactory, he is doing well at daycare center. The mother says he drinks a lot of coca cola. She says that he is over active and very restless, and it is difficult to put him to bed. What advice should be given to the parent?

- A. Explain that hyperactivity is likely to be caused by coca cola
- B. Refer the child to psychiatrist for attention deficit and hyperactivity disorder check-up
- C. Prescribe phenobarbital for 1 month to improve sleep behaviors
- D. Warn about risk of diabetes mellitus type I
- E. All above is correct.

165. An 8 year old girl complains about joint pain, temperature rise up to 38°C, dyspnea. Objectively: the left cardiac border is deviated by 2,5 cm to the left, tachycardia, systolic murmur on the apex and in the V point are present. Blood count: leukocytes - 20,0109/l, ESR - 18 mm/h. What sign gives the most substantial proof for rheumatism diagnosis?

- A. Carditis
- B. Arthralgia
- C. Leukocytosis
- D. Fever
- E. Accelerated ESR

166. A 5 y.o. child with stigmas of dysembryogenesis (small chin, thick lips, opened mouth, hyperthelorumus) has systolic murmur in the second intercostal to the right of the sternum. The murmur passes to the neck and along the sternum left edge. The pulse on the left brachial artery is weakened. BP on the right arm is 110/60 mm Hg, on the left - 100/60 mm Hg. ECG results: hypertrophy of the right ventricle. What defect is the most probable?

- A. Defect of interventricular septum
- B. Defect of interatrial septum
- C. Aortic stenosis
- D. Coarctation of the aorta
- E. Open aortic duct

167. A 1,5 y.o. child fell ill acutely with high temperature 38°C, headache, fatigue. The temperature declined on the fifth day, muscular pain in the right leg occurred in the morning, there were no movements and tendon reflexes, sensitivity was reserved. What is the initial diagnosis?

- A. Viral encephalitis
- B. Polyarthropathy
- C. Polyomyelitis
- D. Osteomyelitis
- E. Hip joint arthritis

168. A 2 m.o. child with birth weight 5100 g has jaundice, hoarse cry, umbilical hernia, physical development lag. Liver is +2 cm enlarged, spleen is not enlarged. In anamnesis: delayed falling-away of umbilical cord rest. In blood: Hb- 120 g/L, erythrocytes - 4,51012/L, ESR- 3 mm/h.

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Whole serum bilirubin is 28 mcmmole/L, indirect - 20 mcmmole/L, direct - 8 mcmmole/L. What is the most probable diagnosis?

- A. Congenital hepatitis
- B. Congenital hypothyreosis
- C. Hemolytic anemia
- D. Conjugated jaundice
- E. Cytomegalovirus infection

169. A 3 year old child fell acutely ill, body temperature rose up to 39,5°C, the child became inert, there appeared recurrent vomiting, headache. Examination revealed positive meningeal symptoms, after this lumbar puncture was performed. Spinal fluid is turbid, runs out under pressure, protein concentration is 1,8 g/l; Pandy reaction is +++, sugar concentration is 2,2 millimole/l, chloride concentration - 123 millimole/l, cytosis is 2,35109 (80% of neutrophils, 20% of lymphocytes). What is the most probable diagnosis?

- A. Purulent meningitis
- B. Serous viral meningitis
- C. Serous tuberculous meningitis
- D. Subarachnoid haemorrhage
- E. Brain tumour

170. A 13 y.o. girl complains of having temperature rises up to febrile figures for a month, joint ache, periodical skin rash. Examination revealed steady enhancing of ESR, LE-cells. What is the most probable diagnosis?

- A. Juvenile rheumatoid arthritis
- B. Systematic scleroderma
- C. Acute lymphoblast leukaemia
- D. Rheum
- E. Systematic lupus erythematosus

171. A child is 1 y.o. Within the last months after the beginning of supplemental feeding the child has appetite loss, diarrhea with massive defecation, sometimes vomiting. Objectively: body temperature is normal. Body weight is 7 kg. Evident pallor of skin, leg edemata, enlarged abdomen. Coprogram shows a lot of fatty acids and soaps. The child was diagnosed with celiac disease and prescribed gluten-free diet. What should be excluded from the dietary intake in this case?

- A. Cereals - wheat, oats
- B. Milk and dairy produce
- C. Fruit
- D. Animal protein
- E. Digestible carbohydrates

172. An 8 y.o. boy complains of constant cough along with discharge of greenish sputum, dyspnea during physical activities. At the age of 1 year and 8 months he fell ill for the first time with bilateral pneumonia that had protracted course. Later on there were recurrences of the disease 5-6 times a year, during the remission periods there was constant productive cough. What examination results will be the most important for making a final diagnosis?

- A. Roentgenography of thorax organs
- B. Bacterial inoculation of sputum
- C. Bronchography
- D. Bronchoscopy
- E. Spirography

173. A mother of a 5 y.o. girl consulted a doctor about daughter's involuntary urination at night, nightmares, sleep disorders, slow gaining of body weight. Objectively: malnutrition, intellectual development is good, the girl can read and explains common situations quite adultly. Her skin is very

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pale, liver is enlarged in size. Her mother suffers from cholelithiasis. What type of diathesis is the most probable in the child's case?

- A. Urine acid diathesis
- B. Gouty diathesis
- C. Exudative diathesis
- D. Allergic diathesis
- E. Lymphohypoplastic diathesis

174. A 10 year old girl complains about abdominal pain that is arising and getting worse after eating rough or spicy food. She complains also about sour eructation, heartburn, frequent constipations, headache, irritability. She has been suffering from this for 12 months. Objectively: the girl's diet is adequate. Tongue is moist with white deposit at the root. Abdomen is soft, painful in its epigastric part. What study method will help to make a diagnosis?

- A. Intra-gastral pH-metry
- B. Fractional examination of gastric juice
- C. Esophagogastroduodenoscopy
- D. Contrast roentgenoscopy
- E. Biochemical blood analysis

175. A 40 h.o. child has hyperosthesia, CNS depression, dyspepsia. Sepsis is suspected. What should the differential diagnosis be made with?

- A. Hypocalcemia
- B. Hyperbilirubinemia
- C. Hypoglycemia
- D. Hyperkalemia
- E. Hypomagnesemia

176. A 1,5 y.o. child fell seriously ill: chill, body temperature rise up to 40,10C, then rapid dropping to 36,20C, skin is covered with voluminous hemorrhagic rash and purple cyanotic spots. Extremities are cold, face features are sharpened. Diagnosis: meningococcosis, fulminant form, infection-toxic shock. What antibiotic must be used at the pre-admission stage?

- A. Penicillin
- B. Lincomycin
- C. Soluble Levomycetine succinate
- D. Gentamycin
- E. Sulfamonometoxin

177. A 10 year old boy suffers from chronic viral hepatitis type B with maximal activity. What laboratory test can give the most precise characteristic of cytolysis degree?

- A. Weltman's coagulation test
- B. Takata-Ara test
- C. Transaminase test
- D. Prothrombin test
- E. Test for whole protein

178. A 6 y.o child complains of thirst, polyuria, increased appetite for 2 months with weight loss for 3 kg. There has been nocturnal enuresis during last week. On examination: hyperglycemia 14 mol/L. The diagnosis is diabetes mellitus I type. What is the genesis of this disease?

- A. Viral
- B. Bacterial
- C. Autoimmune
- D. Neurogenic
- E. Virus-bacterial

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179. A 10 y.o. child who is at oligo-anuretic stage of acute renal insufficiency has got sensations of pricking in the mucous membrane of oral cavity and tongue, extremities numbness, reduced reflexes, respiratory disturbance, arrhythmia. What are these symptoms caused by?

- A. Hyponatremia
- B. Hyperazotemia
- C. Hyperkaliemia
- D. Acidosis
- E. Alkalosis

180. Examination of a 12 year old child revealed diffuse thyroid enlargement of the II degree. Heart auscultation revealed dullness of heart sounds, heart rate was 64/min. The child has frequent constipations, anemia. Concentration of thyreoglobulin antibodies is increased What disease might have caused such symptoms?

- A. Diffuse toxic goiter
- B. Thyroid carcinoma
- C. Autoimmune thyroiditis
- D. Thyroid hyperplasia
- E. Endemic goiter

181. A 13 y.o. teenager who suffers from hemophilia A was taken to the hospital after a fight at school. His diagnosis is right-sided hemarthros of knee joint, retroperitoneal hematoma. What should be primarily prescribed?

- A. Aminocapronic acid
- B. Fresh frozen plasma
- C. Washed thrombocytes
- D. Placental albumin
- E. Dry plasma

182. A 3 m.o. child fell seriously ill, body temperature rised up to 37,80C, there is semicough. On the 3-rd day the cough grew worse, dyspnea appeared. On percussion: tympanic sound above lungs, on auscultation: a lot of fine moist and wheezing rales during expiration. What is the most probable diagnosis?

- A. Acute respiratory viral infection, bronchiolitis
- B. Acute respiratory viral infection, bronchopneumonia
- C. Acute respiratory viral infection, bronchitis
- D. Acute respiratory viral infection, bronchitis with asthmatic component
- E. Acute respiratory viral infection, focal pneumonia

183. A mother of a newborn child suffers from chronic pyelonephritis. She had acute respiratory viral disease before the labor. Labor in time, with prolonged period without waters. A child had erythematous eruption on the 2 day, then there were seropurulent vesicles for about 1cm large. Nikolsky's symptom is positive. Erosions have occured after vesicle rupture. The child is flabby. The temperature is subfebrile. What is the most probable diagnosis?

- A. Vesiculopustulosis
- B. Pseudofurunculosis
- C. Newborn pemphigus
- D. Sepsis
- E. Ritter's dermatitis

184. A child was born at 34 weeks of gestation in bad condition. The cardinal symptoms show respiratoty disorders: sound prolonged expiration, additional muscles taking part in breathing, crepitation rales on the background of the rough breath sounds. Assesment according to Silverman's scale was 0, in 3 hours- 6 with presence of clinical data. What diagnostic method can determine pneumopathy's type in the child?

- A. Blood test

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- B. Blood gases
- C. Chest X-ray
- D. Proteinogram
- E. Immunologic investigation

185. A 9 year old boy has been suffering from diabetes mellitus for a year. He gets insulin injections (humulin R, NPH), the dose makes up 0,4 units per 1 kg of body weight a day. Insulin is introduced subcutaneously (into the shoulder) by means of a syringe. What measures should be taken in order to prevent lipodystrophy?

- A. To limit fats in the boy's diet
- B. To reduce insulin dose
- C. To change point of introduction
- D. To apply periodically other types of insulin
- E. To administer antioxidants

186. During intramuscular DTP vaccination in clinic, a 3 m.o. child developed signs of laryngospasm, paleness of skin, cyanosis of lips, "cock cry", stop of respiration, tension of the whole body with overturned backward head. Allergological history of the child is not complicated. What is the most probable diagnosis?

- A. Anaphylactic shock, clonic spasms
- B. Meningoencephalitic reaction, clonic and tonic spasms
- C. Spasmophilia, tonic spasms
- D. Cerebral haemorrhage, tonic spasms
- E. Meningism, clonic and tonic spasms

187. A child was born with body weight 3250 g and body length 52 cm. At the age of 1,5 month the actual weight is sufficient (4350 g), psychophysical development corresponds with the age. The child is breast-fed, occasionally there are regurgitations. What is the cause of regurgitations?

- A. Aerophagia
- B. Pylorostenosis
- C. Pylorospasm
- D. Acute gastroenteritis
- E. Esophageal atresia

188. A 10-year-old girl consulted a doctor about thirst, frequent urination, weight loss. She has been observing these symptoms for about a month. Objectively: no pathology of internal organs was revealed. What laboratory analysis should be carried out in the first place?

- A. Blood glucose analysis on an empty stomach
- B. Glucose in urine test on the base of daily diuresis
- C. Acetone in urine test
- D. Glucose tolerance test
- E. Glucosuric profile

189. A 2 y.o. boy was admitted to the hospital with weight loss, unstable feces, anorexia, following the semolina's introduction (since 5 months). The child is adynamic, flabby, his skin is pale and dry, subcutaneous fat layer is emaciated. Distended and tensed abdomen, tympanitis on percussion of the upper part of abdomen, splashing sounds, feces are foamy, of light color, foul. On coprocytogram: a lot of neutral fat. What is the most probable cause of the disease?

- A. Mucoviscidosis (cystic fibrosis)
- B. Intestinal dysbacteriosis
- C. Celiakia (celiac disease)
- D. Chronic enteritis
- E. Disaccharidase insufficiency

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190. A child with chronic cardialtis, cardial insufficiency IIA that is being treated with digoxin has got progressing bradycardia, nausea, vomiting, dizziness, sleep disorders. ECG results: extrasystole, PQ-0,18. What is the most probable cause of this condition?

- A. Pulmonary edema
- B. Cardiac glucosides overdose or intolerance
- C. Atrioventricular heart block of the I degree
- D. Acute enteric infection

191. Hypokaliemia

192. A child is 1 day old. During delivery there had been problems with extraction of shoulders. Body weight is 4300,0. Right arm hangs down along the body, hand is pronated, movement in the arm is absent. "Scarf" symptom is positive. What is the most probable diagnosis?

- A. Total right-sided obstetric paralysis
- B. Proximal right-sided obstetric paralysis
- C. Distal right-sided obstetric paralysis
- D. Hemiparesis
- E. Tetraparesis

193. A 10 y.o. child has average indices of body length and her chest circumference exceeds average indices, body weight index is heightened due to lipopexia. Functional characteristics of physical development are below average. Physical development of this child can be estimated as:

- A. Average
- B. Disharmonic
- C. Below average
- D. Harmonic
- E. Deeply disharmonic

194. A 3 year old boy has petechial eruption. Examination revealed no other pathological changes. Thrombocyte number is 20109g/l; haemoglobin and leukocyte concentration is normal. What is the most probable diagnosis?

- A. Schonlein-Henoch disease
- B. Disseminated intravascular coagulopathy
- C. Immune thrombocytopenic purpura
- D. Acute lymphoblastic leukemia
- E. Systemic lupus erythematosus

195. A 4-year-old boy in 2 weeks after the tonsillitis had edema, headache, vomiting three times per day. On physical exam: rise of blood pressure, urine is of meat slops color. What is the most probable diagnosis?

- A. Pyelonephritis
- B. Interstitial nephritis
- C. Glomerulonephritis
- D. Cystitis
- E. Urethritis

196. A 10-year-old girl was admitted to a hospital with carditis presentations. It is known from the anamnesis that two weeks ago she had exacerbation of chronic tonsillitis. What is the most likely etiological factor in this case?

- A. Staphylococcus
- B. Pneumococcus
- C. Streptococcus
- D. Klebsiella
- E. Proteus

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197. A newborn child has purulent discharges from the umbilical wound, skin around the umbilicus is swollen. Objectively: the child's skin is pale, of yellow-greyish colour, generalized hemorrhagic rash. Body temperature is of hectic nature. What is the most probable diagnosis?

- A. Hemorrhagic disease of newborn
- B. Hemolytic disease of newborn
- C. Sepsis
- D. Thrombocytopathy
- E. Omphalitis

198. A child is 2 m.o. Inguinofemoral folds contain acutely inflamed foci with distinct borders in form of spots that are slightly above the surrounding areas due to skin edema. The rash has appeared during the week. Vesiculation and wetting are absent. What is the most probable diagnosis?

- A. Infantile eczema
- B. Dermatomycosis
- C. Napkin-area dermatitis
- D. Psoriasis
- E. Complicated course of scabies

199. 15 minutes after the second vaccination with diphtheria and tetanus toxoids and pertussis vaccine a 4 month old boy manifested symptoms of Quincke's edema. What medication should be applied for emergency aid?

- A. Prednisolone
- B. Heparin
- C. Adrenalin
- D. Furosemide
- E. Seduxen

200. A 1,5-year-old child was taken by an acute disease: body temperature up to 39°C, frequent vomiting up to 5 times. Nervous system tests revealed positive Kernig's and Brudzinski's signs. The given symptoms relate to:

- A. Discoordination syndrome
- B. Motor disorder syndrome
- C. Encephalic syndrome
- D. Meningeal signs
- E. Infectious toxicosis signs

201. A 3 month old child has occiput alopecia, anxious sleep, excessive sweating. What disease might be suspected?

- A. Spasmophilia
- B. Anemia
- C. Phosphate diabetes
- D. Chondrodystrophy
- E. Rachitis

202. A 2 year old girl has been ill for 3 days. Today she has low grade fever, severe catarrhal presentations, slight maculopapular rash on her buttocks and enlarged occipital lymph nodes. What is your diagnosis?

- A. Scarlet fever
- B. Measles
- C. Rubella
- D. Adenoviral infection
- E. Pseudotuberculosis

203. A 2,5 m.o. child has got muscle hypotony, sweating, occipital alopecia. Along with massage and therapeutic exercises the child was prescribed vitamin D. What dosage and frequency are correct?

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- A. 500 IU every day
- B. 1000 IU every day
- C. 3000 IU every day
- D. 500 IU every other day
- E. 1000 IU every other day

204. A full-term infant has respiratory rate of 26/min, heart rate of 90/min, blue skin, muscle hypotonia. During catheter suction of mucus and amniotic fluid from the nose and mouth the child reacted with a grimace. Low reflexes. Auscultation revealed weakened vesicular respiration above lungs. Heart sounds are loud. After 5 minutes the respiration became rhythmic, at the rate of 38/min, heart rate of 120/min. What is the most likely diagnosis?

- A. Inborn pneumonia
- B. Birth trauma
- C. Bronchopulmonary dysplasia
- D. Asphyxia
- E. Respiratory distress syndrome

205. An 8 year old child has low-grade fever, arthritis, colicky abdominal pain and a purpuric rash localized on the lower extremities. Laboratory studies reveal a guaiac-positive stool, urinalysis with red blood cell (RBC) casts and mild proteinuria, and a normal platelet count. The most likely diagnosis is:

- A. Henoch Schonlein's vasculitis
- B. Systemic lupus erythematosus (SLE)
- C. Rocky Mountain spotted fever
- D. Idiopathic thrombocytopenic purpura
- E. Poststreptococcal glomerulonephritis

206. On the 6th day of life a child got multiple vesicles filled with seropurulent fluid in the region of occiput, neck and buttocks. General condition of the child is normal. What disease should be suspected?

- A. Impetigo neonatorum
- B. Vesiculopustulosis
- C. Miliaria
- D. Impetigo
- E. Epidermolysis bullosa

207. A young man has painful indurations in the peripapillary regions of both mammary glands. The most reasonable action will be:

- A. To remove them
- B. To cut and drain them
- C. To leave these indurations untouched
- D. To take an aspirate for bacterial inoculation and cytology
- E. To administer steroids locally

208. Routine examination of an otherwise healthy child with a history of bronchial asthma reveals AP of 140/90 mm Hg. The most likely cause of the hypertension is:

- A. Theophylline toxicity
- B. Chronic lung disease
- C. Coarctation of the aorta
- D. Obesity
- E. Renal disease

209. The child has complains of the "night" and "hungry" abdominal pains. At fibroscopy in area a bulbous of duodenum the ulcerative defect of 4 mm diameter is found, the floor is obstructed with a fibrin, (H.p +). Administer the optimum schemes of treatment:

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- A. De-nol
- B. Maalox - Ranitidin
- C. Vicalinum – Ranitidin
- D. Omeprazole - Trichopolium - Claritromicin
- E. Trichopolium

210. A woman delivered a child. It was her fifth pregnancy but the first delivery. Mother's blood group is A(II)Rh-, newborn's - A(II)Rh+. The level of indirect bilirubin in umbilical blood was 58 micromole/l, haemoglobin - 140 g/l, RBC- 3,81012/l. In 2 hours the level of indirect bilirubin turned 82 micromole/l. The hemolytic disease of newborn (icteric-anemic type, Rh-incompatibility) was diagnosed. Choose the therapeutic tactics:

- A. Replacement blood transfusion (conservative therapy)
- B. Conservative therapy
- C. Blood transfusion (conservative therapy)
- D. Symptomatic therapy
- E. Antibiotics

211. A 3 year old child has been suffering from fever, cough, coryza, conjunctivitis for 4 days. He has been taking sulfadimethoxine. Today it has fever up to 39oC and maculopapular rash on its face. Except of rash the child's skin has no changes. What is your diagnosis?

- A. Allergic rash
- B. Measles
- C. Rubella
- D. Scarlet fever
- E. Pseudotuberculosis

212. A 3 year old boy fell ill abruptly: fever up to 39oC, weakness, vomitng. Haemorrhagic rash of various size appeared on his lower limbs within 5 hours. Meningococemia with infective - toxic shock of the 1 degree was diagnosed. What medications should be administered?

- A. Penicillin and Prednisone
- B. Chloramphenicol succinate and prednisone
- C. Penicillin and immunoglobulin
- D. Chloramphenicol succinate and interferon
- E. Ampicillin and immunoglobulin

213. A 6-year-old boy was brought to the emergency room with a 3-hour history of fever up to 39,5oC and sore throat. The child looks alert, anxious and has a mild inspiratory stridor. You should immediately:

- A. Obtain an arterial blood gas and start an IV line
- B. Prepare to establish an airway
- C. Order a chest x-ray and lateral view of the neck
- D. Examine the throat and obtain a culture
- E. Admit the child and place him in a mist tent

214. A 2 m.o. breast-fed child suffers from cheek skin hyperemia, sporadic papulous elements on the skin of the chest and back following the apple juice introduction. The child is restless. What is the initial pediatriitian's tactics?

- A. Refer to prescribe dermathologist
- B. Administer general ultraviolet irradiation
- C. Treat with claritine
- D. Clarify mother's diet and exlude obligate allergens
- E. Apply ointment with corticosteroids to affected skin areas

215. A 7 y.o. girl fell ill abruptly: fever, headache, severe sore throat, vomiting. Minute bright red rash appear in her reddened skin in 3 hours. It is more intensive in axillae and groin. Mucous membrane of

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oropharynx is hyperemic. Greyish patches is on the tonsils. Submaxillary lymph nodes are enlarged and painful. What is your diagnosis?

- A. Measles
- B. Rubella
- C. Scarlet fever
- D. Pseudotuberculosis
- E. Enteroviral infection

216. A child 2 y.o. was brought to well child visit by his parents. Parents report that their son is generally a well – behaved child, though at times, he can be stubborn. His vocabulary is growing as he imitates adults around him and enjoys people reading to him. He has good appetite, but is sometimes picky with the foods he is offered. They would like to begin potty training with him, but he has been resistant to attempts. He sometimes throws temper tantrums when his parents encourage him to eat certain foods or when they make him sit on the training toilet seat. His parents are concerned that he is not engaging in potty training, and they worry that his temper tantrums may lead to future, more significant behavioural problems. What is the advice of the doctor?

- A. It is normal for this age group
- B. Give the child preferable meals during upset
- C. To take the child to behaviour specialist
- D. To give a some sedation
- E. All the above

217. An 11-yearold girl was taken by an acute disease: she got pain in the lumbar region, nausea, vomiting, frequent urination, body temperature 39oC. Objectively: the abdomen is soft, painful on palpation in the lumbar region. Common urine analysis revealed considerable leukocyturia, bacteriuria. The urine contained colibacilli. What is the most likely diagnosis?

- A. Acute pyelonephritis
- B. Acute appendicitis
- C. Chronic glomerulonephritis
- D. Acute vulvovaginitis
- E. Acute glomerulonephritis

218. A 5-year-old boy was progressively getting worse compared to the previous 2 months. A chest x-ray has shown right middle lobe collapse. A tuberculin skin test was strongly positive. What is the most characteristic finding in primary tuberculosis?

- A. Atelectasis with obstructive pneumonia
- B. Cavity formation
- C. Hilar or paratracheal lymph node enlargement
- D. Miliary tuberculosis
- E. Hematogenous dissemination leading to extrapulmonary tuberculosis

219. A girl is 12 y.o. Yesterday she was overcooled. Now she is complaining on pain in suprapubic area, frequent painful urination by small portions, temperature is 37,80C. Pasternatsky symptom is negative. Urine analysis: protein - 0,033 g/L, WBC- 20-25 in f/vis, RBC- 1-2 in f/vis. What diagnosis is the most probable?

- A. Dysmetabolic nephropathy
- B. Acute glomerulonephritis
- C. Acute cystitis
- D. Acute pyelonephritis
- E. Urolithiasis

220. On the third day of life an infant's skin got icteric colouring. The child was born with body weight of 3,200 kg, body length of 52 cm. The child is active. There is puerile respiration above the lungs. Respiratory rate is 36/min, heart sounds are rhythmic, heart rate is 130/min. Abdomen is soft, liver

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comes out from the edge of costal arch by 2 cm, spleen is not palpable. Feces are in form of meconium. What is the most probable diagnosis?

- A. Hemolytic disease of newborn
- B. Neonatal sepsis
- C. Physiologic jaundice
- D. Minkowsky-Shauffard disease
- E. Biliary tracts atresia

221. Mother of a newborn child suffers from chronic pyelonephritis. She survived acute respiratory viral infection directly before labour. Delivery was at term, the period before discharge of waters was prolonged. On the 2<sup>nd</sup> day the child got erythematous rash, later on - vesicles about 1 cm large with seropurulent content. Nikolsky's symptom is positive. Dissection of vesicles results in erosions. The child is inert, body temperature is subfebrile. What is the most probable diagnosis?

- A. Vesicular pustulosis
- B. Pseudofurunculosis
- C. Sepsis
- D. Ritter's dermatitis
- E. Impetigo neonatorum

222. A 12 y.o. child with acute glomerulonephritis presented with hypertensive syndrome during first days of the disease. What is the role of angiotensin II in the pathogenesis?

- A. Increases heart output
- B. Inhibits depressive action of prostaglandins
- C. Increases erythropoietin production
- D. Intensifies production and secretion of aldosterone
- E. Increases renin level

223. A 6-month old boy was brought to regional pediatric hospital for routine visit. His mother complains that he had low grade fever for 1 day after having vaccination for hepatitis B. Physical examination reveals normal growth and development, normal heart sounds, normal reflexes, active participation in activities, playfulness. Parents are advised to take a good care about nutritional and feeding status, avoiding small toys around the child. What is your advice?

- A. Prescribe acetaminophen
- B. Fever due to teething
- C. Post-vaccination effect
- D. Mild respiratory infection
- E. Allergic hypersensitivity reaction

224. A 12-year old boy is admitted to hospital with the complaints of shortness of breath, elevated jugular venous pulse, sweating, easy fatigability, failure to gain weight and tachypnea with weak peripheral pulses. The auscultation of heart revealed gallop rhythm with accentuated p2, murmurs of mitral and tricuspid regurgitation. The chest radiograph reveals cardiomegaly with a prominent left ventricular apex and prominent pulmonary artery segment. What is diagnosis?

- A. Mitral regurgitation
- B. Left sided ventricular hypertrophy
- C. Atrial septal defect
- D. Idiopathic dilated cardiomyopathy
- E. Tricuspid regurgitation

225. A 1-year old child was brought to hospital by his mother with complaints of decreased exercise tolerance, blue discoloration limited to the lower extremities, shortness of breath on exertion. A physical examination reveals prominent carotid pulsations, tachycardia, widened pulse pressure, tachypnea. On auscultation, there was lateral displacement of apical pulse, crescendo systolic murmur that extends into diastole. Radiographic study shows a prominent pulmonary artery with increased intrapulmonary vascular markings, Doppler examination shows systolic retrograde turbulent flow in the pulmonary

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artery and aortic retrograde flow in diastole. Diagnosis?

- A. Pulmonary hypertension
- B. Aortic regurgitation
- C. Patent Ductus arteriosus
- D. Respiratory distress syndrome
- E. Congestive Heart failure

226. A 12- year boy came to hospital with his mother with the complaints of fatigue, light-headedness, episodes of irregular heart beat, shortness of breath, chest pain and transient episodes of syncope. He had a history of myocarditis when he was 8 years old. Chest X-ray reveals mild enlargement in heart size and clear lung fields. Echocardiogram reveals structurally normal valves, left ventricular function mildly impaired (ejection fraction 44%). Electrocardiography analysis shows the abrupt onset of a non-conducted P wave that is not preceded by a lengthening of the PR interval and every third P wave is not followed by QRS complex. What is the diagnosis?

- A. Mobitz type 1
- B. Mobitz type 2
- C. First degree atrioventricular block
- D. Wolf-Parkinson-White syndrome
- E. Myocarditis

227. A 10 year old girl was brought to hospital by her mother with complaints of fever,swollen joints with tenderness, loss of motion, proximal muscle weakness , sequence of skin color changes affecting fingers and toes, which happens after cold exposure. A physical examination reveals epigastric tenderness, alopecia, petechial rash and sclerodermatous skin changes. Serologic study shows positive anti-U1 RNP more than 1:4000 and a negative anti-Sm Ab. What is the diagnosis?

- A. Gout
- B. Scleroderma
- C. Systemic lupus erythromatosus
- D. Mixed connective tissue disorder
- E. Dermatomyositis

228. A 14-year old boy was brought to hospital by his mother with complaints of weakness, light-headedness, vertigo and tinnitus, palpitations and sore tongue. A physical examination reveals epigastric tenderness,rapid pulse, purpuric rashes over trunk, anorexia with moderate weight loss. Laboratory analysis shows low pepsinogen I levels (< 20 ng/mL), serologic detection of anti-H pylori antibodies is positive and a positive rapid urease test. Upper GI endoscopy reveals areas of atrophy and intestinal metaplasia. Diagnosis ?

- A. Gastritis type A
- B. Gastritis type B
- C. Peptic ulcers
- D. Zollinger-Ellison disease
- E. Irritable bowel disease

229. A 3-year old boy was brought to hospital by his mother with the complaints of irritability, decreased appetite, infrequent bowel movements, hard and painful defecation, refusing to go to toilet. A physical examination reveals mild abdominal distension, papable stool in left lower quadrant, normal anal sphincter tone no significant changes around perineal area, no history of any disease. What is the diagnosis?

- A. Ulcerative colitis
- B. Cancer of large intestine
- C. Irritable bowel disease
- D. Hirsprung disease
- E. Functional constipation

230. A 17-year old boy comes to hospital with his mother with complaints of pain in loin region,

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appearance of blood in urine. Her mother tells that he was suffering from viral pharyngitis 2 weeks ago. A physical examination reveals mild edema in lower extremities, blood pressure is 125/75 mm Hg, pallor and slightly lethargic. Laboratory investigations reveals positive Antistreptolysin-O titer, urinalysis shows hematuria, proteinuria and leukocytes. Microscopic examination reveals dysmorphic RBCs and RBC casts. Percutaneous renal biopsy and histopathologic finding shows the presence of IgA in the glomerular mesangium. Diagnosis?

- A. Hemolytic uremic syndrome
- B. Poststreptococcal glomerulonephritis
- C. Primary IgA nephropathy
- D. Glomerulonephritis due to SLE
- E. Rapidly progressive glomerulonephritis

231. A 3-year old boy was admitted to hospital with the complaints of fever, vomiting, abdominal pain, and diarrhea that is initially watery but then becomes bloody. He was diagnosed with acute gastroenteritis and treated. After 8 days there was sudden onset of pallor, irritability, weakness, lethargy, and oliguria. A physical examination reveals dehydration, edema, petechiae, hepatosplenomegaly, and marked irritability. Laboratory finding shows microangiopathic hemolytic anemia and thrombocytopenia. The blood peripheral smear reveals helmet cells, burr cells, and fragmented RBCs. Urinalysis shows low-grade microscopic hematuria and proteinuria. Diagnosis?

- A. Hepatitis A
- B. Hemolytic uremic syndrome
- C. Idiopathic thrombocytopenia purpura
- D. Chronic renal failure
- E. Rotavirus infection

232. A 10-year old boy was brought to Pediatric Emergency department with complaints of chills, fever, headache, fatigue, maculopapular eruptions. His mother told that he was diagnosed with ulcerative colitis and is being treated with Azulfidine. A physical examination reveals purpuric macules on face and trunk, pruritus and swelling of tongue. What is likely diagnosis?

- A. Measles
- B. Atopic dermatitis
- C. Drug allergy with Sulfasalazine
- D. Psoriasis
- E. Rubella

233. A 16 year old girl with a past medical history of systemic lupus erythematosus presents with intractable nausea and vomiting, increasing edema and no urine output for two days. She had been diagnosed with SLE at age 14. A biopsy of her kidney revealed prominent crescents and minimal fibrosis. Her creatinine was 1.5. She has pale conjunctiva. Her upper and lower extremities have edema. Her blood test revealed anemia, elevated potassium levels 5.7 mEq/l, low bicarbonate 13 mEq/l and elevated BUN at 119 mg/dl and creatinine 14. ANA is 160. A renal ultrasound shows small echogenic kidneys with no masses or stones. A chest x-ray shows engorged pulmonary vessels (fluid overload) and an enlarged heart.

- A. Chronic renal failure in the setting of SLE
- B. Acute renal failure
- C. Sarcoidosis
- D. Rheumatic fever
- E. Glomerulonephritis

234. A 4-year old boy was admitted to hospital with complaints of low grade fever, hoarseness of voice followed by paroxysms of nonproductive, brassy cough that ends with a characteristic inspiratory stridor. The child appears anxious, has tachycardia and retraction of intercostal muscles, associated wheezing. The anterior-posterior X-ray view of neck shows the overdilated hypopharynx. Subglottic narrowing with a characteristic 'steeple sign', thickened vocal cord and normal epiglottis.

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- A. Flu
- B. Pertussis
- C. Bronchial asthma
- D. Parainfluenza infection with croup syndrome
- E. Foreign body inspiration

235. A 12 year old female presents with a 4 week history of fatigue and facial rash which seems to exacerbate on sun exposure. She has recently developed pain and swelling in her fingers and wrists. She has no significant past illnesses. Family history is significant for an aunt with lupus and a grandmother with thyroid disease. She has thinning hair over her front scalp. She has an erythematous maculopapular rash over her malar areas spanning the bridge of her nose, erythema of the hard palate. Joint exam reveals mild swelling and tenderness to palpation and range of motion in the proximal interphalangeal joints of several of her fingers and both wrists. Levels of ANA 1280. Platelet count 167,000.

- A. Rheumatoid arthritis
- B. Osteoarthritis
- C. SLE
- D. Atopic dermatitis
- E. Dermatomyositis

236. An 8-year old boy was playing in the school playground when he started vomiting and collapsed. His stepmother was called who took him to the emergency department where his heart rate was recorded 37 beats per minute. On further questioning the stepmother told that the boy had complained of uneasiness in chest which she had ignored. Capillary perfusion rate is increased upto 2 seconds. The child was administered atropine to which he remained unresponsive and a simultaneous ECG revealed: Upright P waves in 1, 2 and 3 leads. Occasionally a P wave is not followed by a QRS complex (2:1). QRS complex is 0.25 sec.(widened).

- A. Wolf-Parkinson-White syndrome
- B. Mobitz type 2
- C. Mobitz type 1
- D. Atrial fibrillation
- E. Ventricular tachycardia

237. A 5 year old boy presents to the hospital with complaint of difficulty in breathing. His mother tells that he has been feeling weak from past few weeks, he has shortness of breath on exertion , leg pain when running. On physical examination the child is lethargic and has difficulty in breathing. Blood pressure is measured and the values: left arm 97/70 mm Hg : left leg 80/60. The pulses are diminished in the groin and legs. Auscultation revealed systolic murmur on the left sternal border. X-ray showed left ventricular hypertrophy and narrowed aorta at the level of sternal angle and pulmonary edema. Echo of the heart shows sluggish ventricular contraction, prolonged systolic phase and increased velocities on color doppler.

- A. Coarctation of aorta
- B. Aortic regurgitation
- C. Aortic stenosis
- D. Left-sided heart failure
- E. Right-sided heart failure

238. A 12 years old boy with diagnosed benign tumor of adrenal gland was waiting for a planned surgery which suppose to occur in next month, when suddenly found to be in an acute respiratory distress with severe hypoxemia. Immediate intubation was needed. ECG revealed sinus tachycardia, heart rate 160 bpm, significantly elevated T wave in the anterior lead, ST depression in inferior lead. Blood pressure was increased and jugular venous distension seen on visual examination. Patient was sedated. Echocardiography revealed ejection fraction 20%.

- A. Hypertension
- B. Addison disease

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- C. Cushing disease
- D. Acute heart failure due to pheochromocytoma
- E. Primary adrenal insufficiency

239. 3 year old child has general weakness, productive cough and is complaining on pain in the chest. Child has high temperature (38.5 C) , poor appetite and difficulties in breathing. During auscultation, decreased breath sound and crackles are heard. Percussion revealed dull sound. Chest x-ray showed lobar consolidations.

- A. Atelectasis
- B. Lung abscess
- C. Atypical pneumonia
- D. Bronchiolitis
- E. Streptococcus pneumonia

240. Mother of 14 months old child, who recently underwent cardiac surgery for patent ductus arteriosus, complains that baby is frequently choking or coughing during feeding. She also noticed, that baby's cry is weaker than before operation. Auscultation revealed inspiratory stridor.

- A. Vocal cord paralysis
- B. Foreign body aspiration
- C. Laryngospasm
- D. Anaphylaxis
- E. Upper respiratory tract infections

241. A 14 year old girl was complaining on decreased exercise tolerance during sport classes and intermittent breathlessness. Chest radiography showed a homogenous soft tissue mass at right lower lobe of the lung. Thoracic echocardiography showed normal cardiac structure. As the mother mentioned that the family is positive for Hereditary Hemorrhagic Teleangiectasia, doctor directly send a girl for computer tomography pulmonary angiogram.

- A. Pulmonary sequestration
- B. Bronchogenic cyst
- C. Pulmonary arteriovenous malformation
- D. Pulmonary embolism
- E. Pnumonia

242. A 8 month-old girl with diagnosed cardiac arrhythmia was examined by a doctor. The child has reduced peripheral pulse and murmurs are heard during auscultation. Doctor performed echocardiography and cardiomegaly is present. There is history of Tuberous Sclerosis in child's family. Doctor noticed that lesions situated in ventricular myocardium underwent slight regression from time of last examination.

- A. Tuberculosis of the lung
- B. Bronchial asthma
- C. Hypertrophic cardiomyopathy
- D. Cardiac rhabdomyoma
- E. Myocarditis

243. 14 month boy, was admitted to ICU with chills, fever up to 38 C, severe productive cough, and symptoms respiratory distress. Onset of the disease was 2 weeks ago with the nasal discharge and fever up to 39.5 C From the life anamnesis child after splenectomy as result of car accident. On ascultation: diminished breth sounds, bronchial breathing and egophony. On percussion: dullness on right lower lobe. Bilateral knee joints swelling was observed. CBC: moderate leukocytosis with a relative lymphopenia. On X ray loss of clarity of the diaphragm on the AP right lobe up to 10th rib, convex meniscus visible. Diagnosis?

- A. Pneumonia with pleural effusion caused by Haemophilus Influenzae
- B. Community acquired pneumonia
- C. Sepsis

- D. Broncholitis
- E. Acute lymphoblastic leukemia

244. 6 m.o. girl admitted to hospital because of chronic cough, rhinitis, poor growth despite well feeding. No response to antibiotic therapy. Moreover, mother complaints feeling of infant salty taste, constipation and bad feces smell. Nasal polyps and culture positive for *P. aeruginosa* was determined also. On biochemistry, amylase and lipase level decreased, glucose level up to 6,1 mmol/l. Sweat test positive (chloride level 65 mmol/L) Diagnosis?

- A. Pediatric celiac disease
- B. Asthma
- C. Cystic fibrosis
- D. Functional constipation
- E. Ketoacidosis

245. 12 years old boy admitted to ICU with chest pain, dyspnea, and cyanosis. Respiratory distress, presence of amphoric breathing and markedly decreased breath sounds over the right lung were determined. On posteroanterior X ray, beside the air in right pleural space, the fissure was distinguished, which superiorly has a triangular shape and inferiorly demonstrates the tear-shaped shadow, vein suggestive. Lung biopsy did not revealed any pathological findings. Mantoux test negative. Diagnosis?

- A. Pleuritis with pleural effusion
- B. Bronchial asthma
- C. Spontaneous pneumothorax as a result of azygos lobe anomaly.
- D. Tracheo-esophageal fistula
- E. Tuberculosis

246. Boy 16 m.o directed from family doctor to polyclinic because of developmental abnormalities including flat face, depressed nasal bridge, and bulging forehead, child also can not walk. On examination: enlarged tongue, heart murmur, pulse is brisk. ECG shows variable degrees of ST segment depression and T-wave inversion. X ray demonstrates left ventricle hypertrophy. Enzyme assays revealed alpha-L iduronidase deficiency. Diagnosis?

- A. Cardiomegaly as a result of mucopolysaccharidosis type I-Hurler syndrome
- B. Down's syndrome
- C. Myocarditis
- D. Ventricular septal defect
- E. Edward's syndrome

247. 4 days child, girl with perinatal asphyxia. Suddenly cyanosis and dyspnea occurred. BP 60/40. Tachycardia and tachypnea present. Respiratory acidosis develops. On auscultation gallop rhythm, midsystolic murmur heard, the 2nd heart sound (S2) is single and loud. On chest x-ray, the cardiac shadow have the egg-on-a-string appearance with a narrow upper mediastinum. Diagnosis?

- A. Respiratory distress syndrome
- B. Mitral valve stenosis
- C. Dilated cardiomyopathy
- D. Cardiac rhabdomyoma
- E. Acute heart failure due to transposition of the great arteries

248. Boy 12 y.o after car accident admitted to ICU, shortness of breath, weak pulse was present. Suddenly child lost consciousness, on ECG bizarre, irregular, random wave form, no clearly identifiable QRS complexes or P waves, wandering baseline.

- A. Wolf-Parkinson-White syndrome
- B. Ventricular fibrillation
- C. Ventricular tachycardia
- D. Atrial fibrillation
- E. Cardiac tamponade

249. 5 y.o girl admitted to hospital, mother complaints recurrent problems of her child with getting out of the bed, even with walking, difficulty with swallowing of food and fluids. On her back and shoulders she observed V shape erythematous which worsens with UV light. Half year ago girl had infectious mononucleosis. On examination: proximal muscle weakness, calcinosis cutis and Gorton sign. In lab tests: ANA positive, creatine kinase 350 (norm till 200). Muscle biopsy revealed chronic inflammation and muscle degeneration and regeneration.

- A. Scleroderma
- B. Systemic lupus erythromatosus
- C. Dermatomyositis
- D. Esophagal achalasia
- E. Atopic dermatitis

250. 14 years old girl, suffered for DM 1 from 5 years, admitted to policlinic. She complaints of heaviness on the epigastric area, constant nausea, pain and sometimes vomiting after eating, irritability. On exam; tenderness in the epigastric area, tongue is smooth, red, and painful. Lab. Tests: prominent macro-ovalocytosis of the RBC, neutrophils are large and hypersegmented, serum bilirubin 3 mg/dL, H.Pylori test negative. Endoscopy revealed mononuclear cells consisting of lymphocytes and plasma cells in the lamina propria. Usually located around fundic glands. Glandular destruction is present.

- A. Gastritis type B
- B. Peptic ulcer
- C. Gastro-esophageal reflux disease
- D. Gastritis type A, Pernicious anemia
- E. Gastritis type C

251. 15 year old boy, admitted to hospital with insidious onset of mild diarrhea and rectal bleeding with intermittent low grade fever and mild abdominal pain. On lab. hypoalbuminemia, leukocytosis, thrombocytosis ESR 20. Stool sample negative for pathogens. Colonoscopy (macroscopic) revealed diffuse erythema with contact bleeding. On double-contrast (air- barium) granular appearance (like fine or coarse sandpaper).

- A. Hemorrhoids
- B. Cancer of the large intestine
- C. Ulcerative colitis
- D. Irritable bowel disease
- E. Crohn disease

252. 7 y.o girl admitted to ICU with shortness of breath and swollen eye, lips and tongue, nausea and vomiting are present. Mother complaints that child ate milk chocolate with hazelnuts one hour ago. Physical exam: Quincke's Oedema, extended abdomen. On CBC eosinophilia, ESR 28 mm/h. What is the diagnosis?

- A. Lactose intolerance
- B. Food poisoning
- C. Irritable bowel disease
- D. Food allergy
- E. Celiac disease

253. A 3 years old boy was admitted to hospital due to 5 days of bloody mucous diarrhea, vomiting, fever 38 C, abdominal pain, oligouria, and lethargy. On physical examination: mucous membrane of mouth is pale and dry; tongue is dry with whitish coat; skin is pale with decrease elasticity; periorbital edema and hepatosplenomegaly are present. In laboratory analysis of blood shows microangiopathic hemolytic anemia, thrombocytopenia. Markedly elevated creatinine level. Urine analysis shows hematuria and proteinuria. GFR 40 ml/min.

- A. Salmonellosis
- B. Alport syndrome

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- C. Chronic renal failure
- D. Encephalitis
- E. Acute renal failure due to hemolytic uremic syndrome

254. A 8 years old boy 2 weeks ago was admitted to hospital due to palpable purpuric rash ,mild periorbital edema and “cola like” color of urine and BP 120/75 mmHg. His GFR was 85 ml/min. In anamnesis: 3 weeks ago appeared rash on posterior surface of legs and buttocks. Today patient complains on severe headache, vomiting, nose bleeding and weakness. On physical examination: patient is pale, has severe periorbital and peripheral edema, BP is 130/90 mmHg. In laboratory investigation: Blood analysis show leucocytosis with mild anemia and elevated ESR. BUN and creatinine levels are markedly elevated. Urinalysis shows modest proteinuria,microscopic hematuria, RBCs, and RBC and WBC casts. GFR is 30 ml/min. A renal biopsy specimens show a diffuse, proliferative, necrotizing glomerulonephritis with crescent formation.

- A. Glomerulonephritis
- B. Rapidly progressive glomerulonephritis due to Henoch-Schönlein purpura glomerulonephritis.
- C. Pyelonephritis
- D. Renal stones
- E. Urethritis

255. 10 years old girl complains on pain in right lower abdominal quadrant, general weakness, temperature 37.5 C, poor appetite, weight loss and diarrhea. A girl has had similar symptoms from one year. On physical examination: the height and weight of the girl are not adequate to her age. She is pale and in her oral cavity are present aphthous ulcers. A tender mass is palpable in the right lower abdominal quadrant. Laboratory analysis revealed anemia and elevated ESR. Anti-Saccharomyces cerevisiae antibodies are positive. On colonoscopy are seen erythema, loss of vascular pattern, a linear ulcers, and small strictures in the area of terminal ileum and cecum.

- A. Irritable bowel syndrome
- B. Cancer of large intestine
- C. Ulcertive collitis
- D. Appenicitis
- E. Crohn disease.

256. A 16 years old girl with Hashimoto’s thyroiditis complains that from 5 mo has decrease apetite, weakness, mild headaches, loss of weight, episodes of nausea and slight heaviness in the in epigastric area after meal intake. On physical examination a girl is pale. In laboratory analysis: general blood analysis -macrocytic, hyperchromic anemia. Antiparietal and anti-intrinsic factor antibodies present in serum. Esophagogastroduodenoscopy shows redness of mucous membranes in corpus of stomach with visible capillaries. Hypochlorhydria and elevated gastrin level were revealed. H. pylori test (-).

- A. Zollinger- Ellison sundrome
- B. Ulcerative collitis
- C. Gastritis type B
- D. Peptic ulcers
- E. Gastritis type A. Pernicious anemia.

257. A 7 years old girl since 4 mo has been complaining on rash exacerbated on the sun,weakness of extremities. 3 mo before appearance of the rash girl had upper respiratory infection. The rush was treated for 2 mo without any improvement. On physical examination: periorbital violaceous erythema, eyelids and face are swollen. Elevated, violaceous papules present over:the metacarpophalangeal joints, the proximal interphalangeal joints, the elbows, the knees. Decrease strength of the proximal muscles in the upper and lower limbs. Laboratory findings: elevated serum levels of creatine kinase, and aldolase, ANA(+). Electromyography reveals a reduction of the motor unit action potentials in the proximal muscles of upper and lower limbs. Muscle biopsy shows necrosis and fibrosis of muscle fibers with swelling and disruption of muscle cells.

- A. Atopic dermatitis

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- B. Juvenile Dermatomyositis
- C. Myasthenia Gravis
- D. Multiple sclerosis
- E. Scleroderma

258. A 16 years old boy is a member of junior sport team. He is a runner. During a routine medical checkup he does not have any complains. His HR is 49 beats/min, BP is 110/65 mmHg. On physical examination no pathological changes were revealed. On ECG PR intervals are 240 msec. After every P wave is present QRS complex. Treatment is unnecessary.

- A. First-degree atrioventricular block.
- B. Cardiogenic shock
- C. Wolf- Parkinson-White syndrome
- D. Mobitz type 2
- E. Mobitz type 1

259. A 11 years old boy 4 years ago was treated with doxorubicin, bleomycin, vinblastine, dacarbazine due to Hodgkin Disease. He came to a doctor because during last 6 mo he had some episodes of difficulty in breathing during physical training class. He noticed that sometimes “his shoes are tight on him”. He also complains on abdominal pain, fatigue, decreased appetite and weakness. On physical examination apex beat is displaced and heaving in character. On auscultation gallop- rhythm, pansystolic murmur of mitral valve regurgitation. Were revealed hepatomegaly, and pitting edema around the ankles and feet. X-ray shows enlargement on heart. Echocardiography reveals hypertrophy of the left ventricle and atrium, mitral regurgitation and mild hypertrophy of the right ventricle.

- A. Pericarditis
- B. Myocarditis
- C. Cardiac Rhabdomyoma
- D. Acute heart failure
- E. Chronic heart failure caused by doxorubicin.

260. A 6 years old boy 12 days ago developed one day temperature 37,5 C and mild dry cough. Since 10 days dry cough became persistent and spasmodic. Rate of cough attacks reach 20 times a day. The attack of cough is followed by vomiting. In the anamnesis the boy has incomplete immunization with DTP. In blood analysis present leucocytosis. X ray of the chest without pathological changes.

- A. Bronchial asthma
- B. Pertussis
- C. Bronchitis
- D. Cystic fibrosis
- E. Pneumonia

261. A 13 years old boy came to the doctor with symptoms of the pneumonia. In the anamnesis a boy had recurrent left sided lower lobe pneumonia and chronic cough in early childhood. On the physical examination decreased breath sound and dull area were revealed over the left lung base. Laboratory data showed leucocytosis. On X-ray was seen dense opacity of the left lower lobe. After the effective treatment of pulmonary infection with appropriate antibiotics, X-ray was repeated. It shows a mass in the posterior basal segment of the left lower lobe. CT scan with contrast confirms a mass in posterior basal segment of the left lower lobe with blood supply from the thoracic aorta.

- A. Pulmonary sequestration
- B. Congenital lobar emphysema
- C. Pulmonary agenesis
- D. Bronchogenic cyst
- E. Pulmonary hypoplasia.

262. A mother of 3.5 mo age boy complains about inability to hold the head up by child, difficulty in feeding, stop gaining the weight, and decrease loudness of his crying. On physical examination the child has hypotonia generalized muscle weakness and is pale. Double apical pulsation, macroglossia

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and hepatomegaly are seen. A child's uncle died due to the similar symptoms. The laboratory findings show increased levels of CK, AST, and LDH. The electrocardiogram shows prominent P waves, a short P-R interval, massive QRS voltage, signs of biventricular hypertrophy. On the X-ray cardiothoracic index is 70%. Echocardiography reveals thickening of both ventricles and the intraventricular septum. The enzyme assay of muscles demonstrates deficiency of acid  $\alpha$ -glucosidase.

- A. Glucose intolerance
- B. Hepatic cysts
- C. Pompe disease. Cardiomegaly
- D. Hepatic carcinoma
- E. Celiac disease

263. A 16 year old girl with dull pain mostly in periumbilical region was examined by a doctor. She complained on alternating constipation with diarrhea which contains mucous. After defecation abdominal pain is usually relived. She noticed that all symptoms exacerbate after stressful events in her life , when her parents died in car accident few months ago.

- A. Ulcerative colitis
- B. Irritable bowel syndrome
- C. Crohn disease
- D. Functional constipation
- E. Helmintic disease

264. A 12 year old child with symptoms of repeating epigastric pain which is relieved after food intake came to hospital. Such symptom accompanied with episode of vomiting last approximately one year. Child was treated for peptic ulcers but it was not successful. As the laboratory diagnosis shows that gastrin level is 800 pq/ml and the pH is less than 2 , doctor decided that secretin stimulation test must be performed.

- A. Zollinger-Ellison disease
- B. Peptic ulcer disease
- C. Gastritis type B
- D. Gastritis type A
- E. Parasites

265. An 6 month old infant with congenital heart disease- anomaly that affect tricuspid valve (Ebstein anomaly) was diagnosed by a doctor. Child was in severe condition. Mother said that child doesn't behave normally – doesn't tolerate feeding and is easy irritable. She was scared that child was losing consciousness. Physical examination revealed heart rate- 200 bpm and blood pressure low -60/50 mmHg. Respiratory rate 25 breaths per min. ECG shows: shortened PR interval and a slow rise of the initial upstroke of the QRS complex (delta wave).

- A. Atrial septal defect
- B. Left bundle branch block
- C. Mobitz type 1
- D. Ventricular tachycardia
- E. Wolf-Parkinson-White syndrome

266. 2.5 year old child with recent infection of digestive track with *E. coli* was admitted to the hospital with unexplained bruises on skin, bleeding from the nose and edema on the face and extremities. Mother said that the output of urine is decreased and reddish in color. Blood count shows RBC  $2.1 \times 10^{12} /L$  , Hb 90g/L and platelets  $100 \times 10^9 /L$ .

- A. Hemolytic uremic syndrome due to *E. coli* infection
- B. Chronic renal failure
- C. Henoch- Schonlein Purpura
- D. Anemia
- E. Food poisoning

267. A caucasian mother of a 2year old child complaints of her child tasting salty when she kisses

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him. She states there have been episodes of productive cough, sticky and foul smelling stools. There are no other complaints. Physical examination reveals wheezing, hyper-resonance to percussion. Chest x-ray shows hyper inflated lungs. A sweat test revealed levels of chloride 69 mEq/L. Genotyping is done but the result is awaited.

- A. Cystic fibrosis
- B. Pediatric celiac disease
- C. Asthma
- D. Functional constipation
- E. Pneumonia

268. A 2-year old boy presents to the clinic with complaints of difficulty in breathing, cough which later became productive, coryza, conjunctivitis, sinusitis, pain in knee and ankle joint and ear pain. On physical examination a rash was found on the lower extremity, the skin is pale. There is slight increase in body temperature 38.8 degrees. Chest x-ray results revealed infiltrate in the lower lobe of the right lung. CT of the sinuses was done. Sputum culture was positive for Hib. Gram staining for CBC and CSF. There are signs of anemia.

- A. Community acquired pneumonia
- B. Pneumonia due Haemophilus Influenzae
- C. Sepsis
- D. Broncholitis
- E. Acute lymphoblastic leukemia

269. Worried neighbors of a 3 year old boy leave for the emergency department after noting a red swelling on his cheek and sudden abdominal pain. His mother had dropped her son at the neighbours for a birthday party. By the time they reached the hospital, the boy developed expiratory wheezing and generalized urticaria. The doctors administered epinephrine, which relieved his symptoms. He is sent for allergy test which came back positive with a high level of IgE. He had tasted peanut butter and jelly sandwiches at the party.

- A. Shigellosis
- B. Atopic dermatitis
- C. Peanut allergy
- D. Irritable bowel disease
- E. Laryngospasm

270. 3 weeks ago a 12 years old boy was ill with tonsilitis. Clinical examination revealed edema on the legs, BP 130/90 mmHg. Urine analysis showed hematuria, proteinuria, granular and erythrocytic casts. What is the preliminary diagnosis?

- A. Cystitis
- B. Glomerulonephritis
- C. Pyelonephritis
- D. Renal amyloidosis
- E. Kidney stones

271. The 16 years old boy came to doctor for routine medical check up. He does not have any complaints. On physical examination: heart auscultation revealed accent on S2 and systolic murmur above the pulmonary artery. Pulse is rhythmic. ECG and Echocardiography do not show any pathological changes. What is the diagnosis?

- A. Myocarditis
- B. Pulmonary artery valve regurgitation
- C. Stenosis of pulmonary artery valve
- D. Functional murmur
- E. Ventricular septal defect

272. A 6 year old boy on a well child visit complains to the doctor that he was chewing some candy a day ago and suddenly he felt like there is stone in his mouth, when he took it out, he realised its his

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tooth. His mother comforted him by saying everything is fine but the child thinks there is something wrong. Being a doctor what will be your suggestion for the child and mother?

- A. Consult a stomatologist
- B. Biochemistry test to check calcium level
- C. It is normal for his age, no need to worry
- D. X-ray examination
- E. Child is suffering from anxiety disorder

273. A 13 years old girl has been complaining of having itching rash on her face for two days. She associates this disease with application of cosmetic face cream. On physical examination: reddnes and edema of the skin in the region of chicks, chin and forehead; fine papulo-vesicular rash. What is the diagnosis?

- A. Erysipelas
- B. Allergic dermatitis
- C. Eczema
- D. Neurodermatitis
- E. Dermatitis simplex

274. A 4-year-old boy is brought in the clinic by his mother because he has been soiling his underwear. The patient reports that he does not notice when he needs to move his bowels, he only notices later that his underwear is dirty. Previously he moved his bowels 2- times a week and only had small, pellet-like stools. He complains of pain with bowel movement. Anorectal examination excludes anatomical abnormalities and traumatic injury.

- A. Irritable bowel disease
- B. Hirsprung disease
- C. Functional Constipation
- D. Cancer of large intestine
- E. Celiac disease

275. A 12 year old female came to the hospital with complaints of sore tongue, abdominal discomfort, weight loss of 2 kgs in past one month. She is pale, weak and lethargic. On examination her nails are pale and not pink. An endoscopy is done which reveals dystrophy of gastric corpus. A biopsy is taken and results reveal lymphocytes infiltrates of gastric submucosa. Blood test shows decreased serum cobalamin level, 86pg/ml; Anti-parietal and anti-Intrinsic Factor antibodies positive in serum; anemia, increased MCV.

- A. Peptic ulcer disease
- B. Crohn disease
- C. Zollinger-Ellison disease
- D. Autoimmune gastritis
- E. Gastritis type B

276. A previously healthy 7 week old female is brought to the emergency department 15 minutes after experiencing a sudden onset of breathing difficulty. Mother says she was feeding her when she observed her daughter going blue. Pulse oximetry is done which at admission was 90% and after administering oxygen improved to 99%. A systolic murmur is heard on auscultation. X-ray is done. Spine is scoliotic, right ventricular hypertrophy ,classical "boot shaped heart" and decreased pulmonary vascularity are seen.

- A. Pulmonary hypertension
- B. Tetralogy of fallot
- C. Right sided heart failure
- D. Pulmonary valve stenosis
- E. Ventriclar septal defect

277. Parents bring their 19 month old daughter to urgent care clinic with complaints of choking, gagging and respiratory distress. 20 minutes ago she was playing with her elder sister comfortably and

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was eating sunflower seeds. Physical examination reveals respiratory rate of 42 and an expiratory wheeze is heard over sternal notch. A chest X-ray shows a focal hyper-inflated area on the right lung. There is no family history of asthma.

- A. Atalactasis
- B. Bronchiolitis
- C. Pneumothorax
- D. Bronchial Asthma
- E. Foreign body aspiration

278. A 2-year old boy was admitted to hospital 2 weeks ago with the complaints of high grade fever, reduced appetite, irritability, restlessness, diarrhea and vomiting. He was diagnosed with acute gastroenteritis and is being treated in neonatal care unit, for i.v access a central vein catheter was introduced. After few days, he developed again mild fever, coughing, tachycardia, peripheral cyanosis, pale skin, mild respiratory distress. The laboratory investigation reveals leukocytosis with increased ESR and CRP. X-ray shows alveolar infiltration with involvement of both lungs.

- A. Viral pneumonia
- B. Pneumonia caused by Streptococcus epidermidis
- C. Abscess of the lung
- D. Gastroenteritis
- E. Pneumonia due to Hemophilus Influenza

279. A 6-month old boy was brought to regional pediatric hospital for routine visit. Her mother complains that he had mild temperature after he received vaccination for hepatitis B. A physical examination reveals normal growth and development, normal heart sounds, normal reflexes, active participation in activities, playfulness. Parents are advised to take a good care about nutritional and feeding status, avoiding small toys around child.

- A. The child is acutely ill
- B. The child is suffering from infectious disease
- C. Post-vaccination effects, normal health status
- D. The child had hypersensitivity reaction to vaccine
- E. Prodrome phase of Hepatitis B

280. A 16 years old girl complains of having paroxysmal headaches for the last 2 years. The pain is one-sided, intense, localised in frontal region of head, accompanied by nausea and stomach discomfort, begins one of a sudden, usually one day before menstruation. Onset is usually preceded by vision reduction. In between the onsets of headache her state is satisfactory. Objectively: high-calorie diet (body weight index - 29). Neurologic state has no peculiarities. What is the most probable diagnosis?

- A. Chronic subdural hematoma
- B. Epilepsy
- C. Benign intracranial hypertension
- D. Migraine
- E. Hypertensive encephalopathy

281. A 7 y.o. boy suddenly felt pain in his right knee, it became edematous. The day before he took part in a cross-country race. Family anamnesis has no data about hemophilia and bleeding sickness. Objectively: body temperature is 37,5<sup>0</sup>C. The knee is painful, hot to the touch, edematous with local tissue tension over it. Blood count: Hb- 123 g/L, leukocytes - 5,610<sup>9</sup>L, thrombocytes - 35410<sup>9</sup>L, prothrombin time - 12 seconds (normally 10-15 seconds), partly activated thromboplastin time - 72 seconds (normally 35-45 seconds). Hemorrhage time is normal, VIII:C factor is 5\% of norm. What is the most probable diagnosis?

- A. Vitamin K deficiency
- B. Hemophilia
- C. Schoenlein-Henoch disease
- D. Hemophilia A

## E. Thrombocytopenia

282. A 16 year old girl with a present history of systemic lupus erythematosus presents manifests with nausea and vomiting, increasing edema and no urine output for two days. A biopsy of her kidney revealed prominent crescents and minimal fibrosis. Her creatinine was 1.5. Her upper and lower extremities have edema. Her blood test revealed low hemoglobin of 7.5g/dl, elevated potassium levels 5.7 mEq/l, low bicarbonate 13 mEq/l and elevated BUN at 119 mg/dl and creatinine 14. ANA is 160. A renal ultrasound shows small echogenic kidneys with no masses or stones. A chest X-ray shows engorged pulmonary vessels and an enlarged left heart. Moderate level of pericardial effusion. What is the current complication of SLE?

- A. Chronic renal failure
- B. Hypertrophic cardiomegaly
- C. Anemia
- D. Severe dehydration
- E. Polycystic kidneys

283. A 7 years old boy was admitted to hospital because of high fever, joint pain, sudden limitation of joint movements. Antalgic gait was present. The child was previously treated for pneumonia caused by *S. aureus*. The laboratory test shows the leukocytosis with immature cells and rise of ESR and CRP. In X-ray show capsular swelling of the hip joint. What is the most likely complication of pneumonia?

- A. Leukemoid-like reaction
- B. Habit antalgic gait
- C. Posttraumatic osteoma
- D. Suppurative arthritis
- E. Reactive arthritis

284. A 3 years old boy was admitted to pediatric department with complains of chest pain, which worsens during inspiration, fever, cough and dyspnea. According to mother, dyspnea and fever present for the past 5 days. During the auscultation the pleural friction rub is heard and dull sound during percussion. On X-ray, it is possible to see large opacity on the left lung with obliteration of the left angle and a fluid stripe. What would be your diagnosis in this case?

- A. Bacterial endocarditis
- B. Pleural effusion
- C. Pneumothorax
- D. Relaxation of diaphragm
- E. Mesothelioma

285. A 5-year-old girl was admitted to the ICU with complaints of high grade fever, tachycardia and an increase in respiratory rate, dyspnea, pleuritic chest pain, tachypnoe, sudden shaking chills and dry cough. Parents added that the child had pharyngitis 6 days ago. Physical examination revealed evidence of streptococcal impetigo on the girls skin and dullness on percussion on the left side. X-ray reveals homogenous density of the left lung with foci of destruction. CBC shows WBC-22,000/mm<sup>3</sup>, predominance of neutrophils. Antistreptolysine antibodies 690 IU/l. What is the likely cause of pneumonia?

- A. Group A Streptococci
- B. Klebsiella
- C. Group B Streptococci
- D. Alpha-hemolytic Streptococci
- E. Staphylococcus aureus

286. A 6-year-old girl, was admitted to the ICU with the signs of respiratory distress syndrome. A girl complained about dyspnea, sharp chest pain which is exacerbating during deep inspiration. Other symptoms are high grade fever, shaking chills, night sweating. In anamnesis the girl had pneumococcal pneumonia from 6 days. On percussion, dullness and decreased tactile fremitus. On auscultation diminished of breath sounds is heard over the left lung. X-ray confirmed presence of fluid

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in the left lung. CBC revealed leucocytosis WBC 21, 000/ mm<sup>3</sup>, shifted to the left. What is the likely diagnosis?

- A. Bacterial endocarditis
- B. Pneumothorax
- C. Pleural effusion
- D. Relaxation of diaphragm
- E. Mesothelioma

287. A 15 years old girl came to the ENT department complaining of severe ear pain for 2 days. She has low-grade fever, cough and rhinorrhea for about a week. The cough was worsening but was non productive. She had sore throat for the past 3 days. During physical examination her temperature was 37.8°C and respiratory rate was 38 breath/min but with no distress. Her pharynx was erythematous with no exudate and on auscultation her lungs had bilateral rales and mild expiratory wheezing. On CBC the total white blood count was 18,000/mm<sup>3</sup>. What is the most likely clinical diagnosis?

- A. Pneumonia caused by *S. pneumoniae*
- B. Pneumonia caused by *K. pneumoniae*
- C. Pneumonia caused by *M. pneumoniae*
- D. Pneumonia caused by *H. influenzae*
- E. Pneumonia caused by *E. coli*

288. A 13 years old boy, was admitted to pediatric department with diagnosed pneumonia. His symptoms were getting worse, moreover he started complaining of shortness of breath and the pain radiating from the chest to the back. On physical examination his temperature was 38.5°C, pulse rate 140 beats/min, and respiratory rate was 40 breath/min. He is alert but subdued and somewhat toxic in appearance. Cardiac examination reveals tachycardia and muffled heart sound. Chest x-ray identified bilateral multiple nodular opacities and increased cardio-thoracic index. CBC shows a WBC 25500/mm<sup>3</sup>. ECG reveals sinus tachycardia. What is the complication of pneumonia has developed?

- A. Sepsis
- B. Meningitis
- C. Middle lobe syndrome
- D. Pericarditis
- E. Endocarditis

289. A 3 years old girl was diagnosed by family doctor with acute otitis media, treated by amoxicillin-clavulanate. On the end of 3<sup>rd</sup> day developed dry cough, high fever, shaking chills. She was admitted to ICU. The child has not got all vaccinations. On physical examination revealed retraction of intercostals and subcostal areas, dullness in percussion. During auscultation, diminished breath sounds at lower lobes, additionally there were heard fine crackles sound. Laboratory test shows: in CBC-WBC count 25000/mm<sup>3</sup>, shift to left, ESR 35 mm/h. Chest X-ray show infiltrations and consolidation present in lower lobes. Middle ear cultures revealed gram-negative rod. What is the likely causative bacteria for this disease?

- A. *S. pneumoniae*
- B. *K. pneumoniae*
- C. *M. pneumoniae*
- D. *H. influenzae*
- E. *coli*

290. A 5-year old boy was admitted to pediatric department in severe condition, persistent fever, dyspnea, dull pain in chest. From one week child received ambulatory treatment on bacterial pneumonia, because mother refused hospitalization. During physical examination, dullness on percussion at lower segments of the left lung, auscultation revealed absent breath sounds in the left lower lobes. On chest X-ray increased uniform intensity of pleura with extra pleural fluid collection on left side. Thoracocentesis was performed, which revealed following results: cloudy appearance, pH 7.05, neutrophils 110.000/μl (PMNs). What would be your diagnosis in this particular case?

- A. Empyema

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- B. Abscess
- C. Exudate
- D. Pneumothorax
- E. Lymphatic drainage

291. A 2 years old child was suffering from severe pneumonia caused by *Staphylococcus aureus*. After one month, there was local swelling on lower extremities. Pain was migrating from lower extremities to upper extremities, which was disturbing the child. It was accompanied by high fever, general weakness and irritability. CBC shows ESR: 40 mm/h (N: 4-6 mm/h), CRP: 60 mg/l (N: <10mg/l). X-ray shows inflammation of the tibia. What is the clinical diagnosis?

- A. Posttraumatic osteoma
- B. Suppurative arthritis
- C. Reactive arthritis
- D. Tendovaginitis
- E. Osteomyelitis

292. A 6-year old boy was admitted to the pediatric hospital with high grade fever and sore throat. Three weeks ago a child was suffering from influenza virus infection. Physical examination reveals moist rales and tympanic sound over the inflammatory focuses. X-ray examination shows the presence of shadows and infiltrates involving segments. Bacteriological diagnostic test reveals presence of gram-positive cocci arranged in chains. CBC test shows : WBC  $1510^9/l$  (N:  $4-10.810^9/l$ ) Neutrophils 55%, bands: 6%, segmented: 49%, Monocytes: 3%, Eosinophils: 2%, Basophils: 0%, Lymphocytes – 45%, ESR: 15mm/h (N: 4-6mm/h), CRP: 26 mg/l (N: 10mg/l). What is the clinical diagnosis?

- A. Pneumonia caused by *S. pneumoniae*
- B. Pneumonia caused by *K. pneumoniae*
- C. Pneumonia caused by *M. pneumoniae*
- D. Pneumonia caused by *H. influenzae*
- E.  $\beta$ - hemolytic group A *Streptococcus*

293. The boy, 2 month old was admitted to intensive care because of progressive illness. The child suffered 2 times from upper respiratory infection in the past. On the skin he has deep sited abscess. The child has high fever; precipitate groan breathing (grunting); sternum and intercostal contraction, dyspnea and cyanosis. In diagnostic study leukocytosis with granulocytes was predominated. Anemia was revealed. Abscess with fluid and different size of bubbles in right lung was present. What is your diagnosis in this case?

- A. Pneumonia caused by *S. aureus*
- B. Pneumonia caused by *S. pneumoniae*
- C. Pneumonia caused by *K. pneumoniae*
- D. Pneumonia caused by *M. pneumoniae*
- E. Pneumonia caused by *H. influenzae*

294. A 5 years old boy, 2 days after appendectomy suddenly got dyspnoe, temperature 39 C and rapidly progressive distress syndrome. X-ray shows consolidation in the right lower lobe. The laboratory findings show WBC is  $17.000/mm^3$ , shift to the left (21% of bands) and ESR is 42mm/h. Sputum culture shows gram positive cocci in grapelike cluster. What is the likely diagnosis?

- A. Pneumonia caused by *S. aureus*
- B. Pneumonia caused by *S. pneumoniae*
- C. Pneumonia caused by *K. pneumoniae*
- D. Pneumonia caused by *M. pneumoniae*
- E. Pneumonia caused by *H. influenzae*

295. From two years , 17 years old girl had symptoms of abdominal pain, weight loss, poor appetite, temperture 37.3C, general weakness. She had diarrhea with mucous. Stomatitis was present. Pallor of the skin was present. X-ray with barium meal showed thick folds in the most proximal part of the jejunum, with a loss of the normal feathery pattern. Beyond this the jejunum showed many strictures

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with dilatation of the bowel between the strictures. Radiographs of the skeleton shows reduced bone mineral content with partial collapse in the vertebra body Th7.

- A. Ulcerative colitis
- B. Crohn's disease
- C. Meckel diverticulitis
- D. Hirschsprung disease
- E. Protein losing enteropathy

296. A 15 years old male, was brought to the gastroenterology department with complains of bloating, abdominal pain. The colic pain is located in hypogastric region, partially relieved after defecation. He often experiences constipation, stools are small and hard. These symptoms occurs for the past 3 months. Contrast of GIT with barium milk shows no changes. What is your diagnosis?

- A. Irritable Bowel Syndrome
- B. Ulcerative colitis
- C. Crohn's disease
- D. Meckel diverticulitis
- E. Hirschsprung disease

297. An 14 years old girl was presents to the outpatient department with abdominal pain, diarrhea with mucous and mild elevated temperature. She had similar episodes for the past few years. She is underweight. Her abdomen appears scaphoid. There was mildly hyperactive bowel sounds with diffuse vague abdominal pain without any points of tenderness. CBC shows macrocytic, hyperchromic anemia and thrombocytopenia. On endoscopy narrowing of the antral position of the stomach was seen along with thickening of the mucosal folds. Jejunum contains several well-demarcated ulcers. What is your diagnosis?

- A. Crohn disease
- B. Irritable Bowel Syndrome
- C. Ulcer disease
- D. Gastritis A
- E. Hirschsprung disease

298. A 6-year old boy was brought to the hospital with complain of abdominal pain which is not relieved by defecation. According to mother, child was complaining for the past 6 months but there was no clinical findings. The child has no other symptoms. On physical examination Temperature 36.6°C, pulse rate 98/min, respiratory rate 20/min, blood pressure 100/60 mmHg. CBC: WBC 14.0, Hb 16 g/dL, Hct 48%, Na 135, K 3.0, Cl 90, bicarbonate 30. Urine analysis: Specific gravity 1.030, there was no pyuria or hematuria. What is your diagnosis?

- A. Irritable Bowel Syndrome
- B. Ulcer disease
- C. Functional abdominal pain
- D. Gastritis A
- E. Hirschsprung disease

299. A 11 years old girl complained about abdominal pain located in the periumbilical region, not revealed after defecation. Symptoms increases, especially when the girl gets ready for the school. That was the reason of her frequent absence on the lessons. Colonoscopy was performed but did not find any abnormalities, CBC was normal, stool sample testing was also normal. What is your diagnosis in this particular case?

- A. Irritable Bowel Syndrome
- B. Ulcer disease
- C. Functional abdominal pain
- D. Gastritis A
- E. Hirschsprung disease

300. A 10 years old boy was admitted to the hospital with complaints of frequent diarrhea, cramping

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abdominal pain in RLQ. Mother said that her son was persistently tired and weak from 5 months; also he not gaining weight even though he is eating very well. Physical examination: temperature 37°C, pallor of skin, tender abdominal mass palpable in RLQ, mouth ulceration. Contrast X-ray examination of GIT shows narrowing and irregularity in the distal ileum. Colonoscopy data: diffused erythema, perianal lesions. What would be your diagnosis in this case?

- A. Ulcerative colitis
- B. Irritable Bowel Syndrome
- C. Ulcer disease
- D. Crohn disease
- E. Functional abdominal pain

301. A 16 years old girl came to Pediatric Polyclinic. She seems to be shy, stressed and embarrassed. She owned up that she empties once per week with feeling of incomplete evacuation of feces, and even this single defecation is hard and painful and needs excessive effort. She describes that from 2 months frequently passes gases. Physical examination: large fecal mass in sigmoid on palpation, distension of bowel. On X-ray, after enema, no structural changes were seen. What would be your diagnosis in this case?

- A. Functional abdominal pain
- B. Irritable bowel syndrome
- C. Functional constipation
- D. Celiac disease
- E. Cystic fibrosis

302. A 12-years old girl came in the Pediatric Department with complains of defecated hard stools every 8 days. Retentive stool masses were noticed during physical examination. The anal region was contaminated with stool. On X-ray, after enema, no structural changes were seen. On biopsy of the bowel mucosa – there were no abnormalities. What is the diagnosis for this particular patient?

- A. Functional abdominal pain
- B. Irritable bowel syndrome
- C. Functional constipation
- D. Celiac disease
- E. Cystic fibrosis

303. A 13-year old boy suffered from severe abdominal pain, weight loss and recurrent appearing diarrhea for the past 2 years. The patient had previously been admitted to another hospital at the age of 11 years with the same symptoms. Examination had shown several mouth ulcers, tender mass localized in RLQ and an anal fissure and slightly increased temperature. Contrast X-ray examination of GIT shows narrowing and irregularity in the terminal ileum. The fissure had been excised, and histological examination showed granulation tissue containing non-caseating epithelioid cell granulomas. What is likely diagnosis for this patient?

- A. Crohn disease
- B. Irritable bowel syndrome
- C. Ulcer disease
- D. Gastritis A
- E. Hirschsprung disease

304. A 5 weeks old boy was brought in to outpatient department. The mother complained that her baby is crying especially during daytime while defecating. Stool is hard and infrequent. He is fed by milk formula rich with protein. During physical examination in the left iliac area a large size mass is palpable. His weight is 3400 (normal 3550). Stool culture examination and rectal motility studies were normal. Endoscopic examination gave no changes. What is your diagnosis?

- A. Irritable bowel syndrome
- B. Ulcer disease
- C. Pyloric stenosis
- D. Hirschsprung disease

## E. Functional constipation

305. A 6 years old child was brought to hospital by his mother because he has been soiling his underwear. Mother noticed that child is defecating once a week and it is accompanied with stool passage difficulties. Child is complaining about painful evacuation of stool. Physical examination revealed palpable mass in LLQ. After enema, colonoscopy did not show any structural changes in wall of large intestine. What is your diagnosis?

- A. Irritable bowel syndrome
- B. Functional constipation
- C. Ulcer disease
- D. Pyloric stenosis
- E. Hirschsprung disease

306. A 3 year old boy is brought to hospital by his mother, when she noted bloody diarrhea earlier in the day. His family had attended a birthday party 3 days before, where the child had consumed a lot of vegetables and fruits. On examination eyelids are swollen with a pitting edema on the legs. His conjunctiva is yellow. Blood analysis: hemoglobin 8 mg/dL, hematocrit 25%, platelet count 75,000/mm<sup>3</sup>; creatinine is 0.13 mmol/l, indirect bilirubin is 35 mmol/l. What is the diagnosis?

- A. Poststreptococcal glomerulonephritis
- B. Hemolytic uremic syndrome
- C. Lead intoxication
- D. Food poisoning
- E. Idiopathic hemolytic anemia

307. A 12 years old girl present with a history of abdominal pain, altered bowel movements and bloating from 4 months. The colic pain is located in hypogastric region, partially relieved after defecation. The abdominal discomfort occurs during daytime. She often experiences constipation, stools are small and hard. She also notes that defecation is associated with incomplete evacuation, which leads to prolonged straining. Abdominal tenderness is present during palpation. There are no characteristic laboratory and morphological changes. Stool examination excluded bacterial intestinal infection. Test for *Helicobacter pylori* - negative, celiac serologic test-negative. What is the clinical suspicion?

- A. Hirschsprung disease
- B. Irritable bowel syndrome
- C. Crohn disease
- D. Cancer of the large intestines
- E. Ulcerative colitis

308. A four years old boy was referred to hospital. History revealed that the boy was suffering from high-grade spiky fever for the last seven days with associated irritability. He developed oliguria for the last two days. On examination, the child was found to have postauricular lymphadenopathy, erythematous skin of the body. His chest X-ray was normal. Electrocardiogram demonstrated sinus tachycardia with S-T wave depression. Echocardiography showed aneurysm of the left carotid artery. Blood biochemistry: creatinine 0.08 mmol/L, K<sup>+</sup> 3.2 mmol/l. Urinalysis showed 5-10 white blood cells/HPF and a few hyaline casts. What is the most likely diagnosis?

- A. Systemic lupus erythematosus
- B. Myocarditis
- C. Kawasaki disease
- D. Acute renal failure
- E. Pericarditis

309. A 6 years old boy was admitted to hospital with the chief complaints of bloody diarrhea, cramps, urgency to defecate and abdominal pain. His parents report that a week before he had low-grade fever and mild decrease in body weight. On physical examination: T: 37.3°C, weight 17 kg. Number of daily loose stools: 3 with blood, mucus and with a feeling of straining during defecation. Laboratory test

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reveals: HGB: 9 g/dl, ESR: 30 mm/h, serum albumin: 32 g/l. Stool examination excludes bacterial and parasitic infection. Plain radiography of the abdomen demonstrate loss of haustral markings in an air-filled colon. Endoscopy reveals slight ulceration, extending from the rectum to sigmoid colon. What is the diagnosis?

- A. Ulcerative colitis
- B. Hirschsprung disease
- C. Celiac disease
- D. Crohn disease
- E. Cancer of the large intestines

310. A girl age 15 was admitted into Pediatric Department with complains of rectal bleeding approximately 2-3 times per day with frequent stools and mucous discharge from the rectum. Colonoscopy shows erythematous mucosa, with ulceration without intervening areas of normal mucosa. Colonic biopsy samples from patients show significantly increased levels of platelet-activating factor (PAF). On laboratory findings: anemia hemoglobin 10 g/dL, thrombocytosis platelet count 450,000/ $\mu$ L. What would be the diagnosis?

- A. Acute dysentery
- B. Ulcerative colitis
- C. Crohn disease
- D. Celiac disease
- E. Irritable bowel syndrome

311. A 7-year old boy admitted to hospital with lethargy, weakness, occasional vomiting, and some jaundice. From the history, it is known that the child was eaten forest mushroom soup, the day before the admission. Physical findings were mostly unchanged apart from a dry skin with yellowish discoloration, and urinary output slightly decreased. BUN and serum creatinine are normal. What is the diagnosis?

- A. HUS
- B. Hepatitis A
- C. Food poisoning
- D. Renal failure
- E. Encephalitis

312. A 14 years old girl came to outpatient clinic with complains of frequent constipations which she describes as hard stools of narrow caliber, painful defecations and abdominal pain without radiation which is relieved after defecation. Endoscopy and stool examination did not show any abnormalities. What is your primary diagnosis?

- A. Ulcerative colitis
- B. Cancer of the large intestine
- C. Irritable bowel syndrome
- D. Functional constipation
- E. Hirschsprung disease

313. This is a 15 years old female presents with fever and diarrhea. She had similar episodes in the past few years. Examination shows: Temperature: 37.0°C, She is a thin. There are mildly hyperactive bowel sounds with diffuse vague abdominal pain without any point tenderness. Rectal examination demonstrates non-specific discomfort without masses or severe tenderness. Her stool is guaiac positive. CBC shows: mild microcytic, hypochromic anemia and thrombocytopenia. ESR was elevated. Serologic markers for inflammatory disease was positive results of ANCA and negative for ASC Colonoscopy showed the following: inflammation that is first evident in the rectum and that proximally extends in a contiguous fashion. The mucosa typically appears erythematous, friable, and granular and has lost the normally visible vascular markings. What is your diagnosis and plan for treatment ?

- A. Ulcerative colitis complicated by anemia
- B. Crohn disease

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- C. Irritable bowel syndrome
- D. Acute dysentery
- E. Hirschsprung disease

314. A 3-year old boy was admitted to hospital with the complaints of fever, vomiting, abdominal pain, and diarrhea that was initially watery but then became bloody. He was diagnosed with acute gastroenteritis and treated. After 8 days there was sudden onset of pallor, irritability, weakness, lethargy, and oliguria. A physical examination reveals dehydration, edema, petechiae, hepatosplenomegaly, and marked irritability. Laboratory finding shows microangiopathic hemolytic anemia and thrombocytopenia. The blood peripheral smear reveals helmet cells, burr cells, and fragmented RBCs. Urinalysis shows low-grade microscopic hematuria and proteinuria. What is the diagnosis?

- A. Hepatitis C
- B. Idiopathic thrombocytopenic purpura
- C. Acute lymphoblastic leukemia
- D. Hemolytic-uremic syndrome
- E. Ulcerative colitis

315. A 16 years old girl was brought to the emergency department complaining of severe abdominal pain, cramps, fever and feeling of lightheadedness and diarrhea up to 5 times a day. On physical examination her sclera is white and her skin is pallor. Vital signs are the following: temperature 37.3°C, heart rate 130/min, respiratory rate 23/min. Blood analysis shows: Hb 9 g/dL, ESR and CRP protein are elevated. Stool culture was negative on parasites and pathogenic bacteria. On the endoscopic examination multiple ulcers are visible with no haustration. The girl's weight is 45 kgs. What is your diagnosis in this case?

- A. Irritable bowel syndrome
- B. Functional constipation
- C. Ulcer disease
- D. Ulcerative colitis
- E. Hirschsprung disease

316. A 12 years old boy was admitted to the clinic with abdominal pain, discomfort, bloating and constipation. The mother mentioned that pain started approximately 2 months ago and the child is having one attack per week. Child mentioned that he needs to strain to have a bowel movement and has sensation of not completely emptying the bowels, and the pain or discomfort is relieved by having a bowel movement, also pain was associated with a change in the appearance of stool small, hard, pellet-like and sometimes has mucus. The CBC examination was normal, absence of parasites or ova in the stools, all other examinations which was performed was normal. What is your diagnosis?

- A. Ulcerative colitis
- B. Cancer of the large intestines
- C. Hirschsprung disease
- D. Functional constipation
- E. Irritable bowel syndrome

317. A 16-year-old boy has complaints of shortness of breath, chest pain worse on inspiration, and tiredness on minimal exertion, which has worsened over time. The patient also complained of paroxysmal nocturnal dyspnea and two-pillow orthopnea. There's tachycardia, BP is 180/120, absence of breath sounds with bilateral crackles, pulmonary edema on X-ray. Patient also has a history of sensorineural hearing loss and retinal flecks. A 24-hour urine revealed 1800 mg of total protein and a creatinine clearance of 15 ml/min. Kidneys are of normal size with increased echogenicity. BUN is 57mg/dl and creatinine 5.8mg/dl. Skin biopsy showed monoclonal antibody against collagen type IV alpha-5 chain. At the age of one he was incidentally diagnosed with microscopic hematuria also in repeated tests. The mother's family has a history of end stage renal failure. What is the diagnosis?

- A. Primary arterial hypertension
- B. Alport syndrome with end stage renal disease

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- C. SLE with end stage renal disease
- D. Berger disease with end stage of renal disease
- E. Chronic urinary tract infection

318. A 17 y.o. boy admitted to the hospital with long-standing uncontrolled diabetes mellitus type I. Occasionally on laboratory test BUN is 53 and serum creatinine 2.8. Over the day his urine output falls to 500 ml over 24 hours period and he was given 2 l of fluids IV. On the second day he developed shortness of breath and lower extremities oedema. The fluid was discontinued and labs revealed even greater increase in creatinine. What sit the diagnosis?

- A. Acute renal failure
- B. Diabetic ketoacidosis
- C. Secondary pneumonia
- D. Cardiomyopathy
- E. Acute heart failure

319. A 15 year old adolescent was taken to the hospital with complaints of poor night vision. Objectively: increased darkness adaptation time, Bitot's spots on conjunctiva. The patient's skin is dry, scales off, folliculitis signs of the face skin are present. What is the cause of this disease?

- A. Folic acid deficiency
- B. Thiamine deficiency
- C. Biotin deficiency
- D. Retinol deficiency
- E. Naphthochynones deficiency

320. A 7 years old patient was hospitalized in children department due to severe pneumonia. On the 3<sup>rd</sup> day of the disease child complains on the pain in the right arm, which increases during motion, raised body temperature up to 39<sup>0</sup>C. In the right cubital fossa there is inserted catheter, hyperemia and thickening along the vein. What is your diagnosis?

- A. Phlebitis
- B. Phlegmon
- C. Abscess
- D. Phlebitis
- E. Erysipelas

321. Patient, male, 6 years old was behind other children in development since early childhood and still has moderate mental retardation. He is short, has dismorphic body, his face is round, flattened, his eyes are narrow and slanted, and there are epicantial folds in the corners of his eyes. There is only one transversal flexor line on his palms. What is the diagnosis?

- A. Maternal alcohol abuse during pregnancy
- B. Gene abnormalities
- C. Down's syndrome
- D. Congenital infection
- E. Pathological deliver

322. A 14-year old girl came to the outpatient department complaining of painful cramps on the lower abdomen and lower back pain. The cramps started 1 week ago. Since 2 days she has been feeling nausea and yesterday she had vomited twice after eating. She started menstrual cycle at age of 12, every 28 days, lasting 7 days. Most of the time she is not attending the school and stays in the bed. She has history of menstrual pain which lasts 3 days. Pelvic examinations indicated discomfort in the suprapelvic area.

- A. Premenstrual syndrome
- B. Primary dysmenorrhea
- C. Secondary dysmenorrhea
- D. Appendicitis
- E. Salpingoophoritis

323. A 15 years old girl was examined in the outpatient department for routine check-up. Parents complained about excessive eating. Girl has moon-like face. Her height was 163 cm, her weight was 90 kg. The blood pressure was 150/95 mm Hg. Severe acanthosis nigricans was visible on the neck and axillae, and there was a moderate acne on the face; a slightly android pattern of hair growth was evident on the abdomen. Stria on abdomen, thighs and breasts. The rest of the physical examination is normal. Laboratory values shows increased cortisol and glucose level. What is the likely diagnosis?

- A. Cushing disease
- B. Addison disease
- C. Obesity
- D. Polycystic ovary syndrome
- E. Hypothyroidism

324. A 14 year old girl was admitted to Children Hospital due to arterial hypertension of unknown etiology, treated from 5 years without improvements. On physical examination BP- 180/100mmHg. Urine analysis confirmed mild microhematuria with proteinuria up to 0.225 g/24h. Biochemical parameters: electrolytes except K: 2,6 mmol/l(N: 3,5-5,5mmol/l), serum glucose, GFR, cortisol, aldosterone, 17-hydroxyprogesterone, rennin were within normal ranges. Fundoscopy revealed narrowed retinal arteries. Sinus bradycardia and left ventricular hypertrophy were found on ECG. Dynamic renal scintigraphy with angiotensin converting inhibitor was done. Renal angiography revealed narrowed arteries. What is the diagnosis?

- A. Left ventricular hypertrophy
- B. Hypertension due to renal artery stenosis
- C. Chronic kidney failure
- D. Nephritic syndrome
- E. Addison disease

325. A 17 years old patient refused admission to psychiatric hospital which was advised to her due to problem with food intake. Her eating disorder had started when she was 14 years old and when she started doing exercise and avoiding fatty foods. Her weight dropped from 78 kg to 49 kg (her height is 175 cm) within few months. At the same time her parents had terrible marital problems. During this time she had symptoms of depression. The predominant symptoms within the clinical picture were: loss of menstrual period, fear of weight gain, a skewed body image, anxiety.

- A. Irritable bowel syndrome
- B. Celiac disease
- C. Anorexia nervosa
- D. Depression
- E. Hyperthyroidism

326. A 17-years old boy came to hospital with the following complaints: headache, burning pain during urination, frequent urination, feeling of fullness in the stomach, mild fever 37°C and weakness. He also said that his urine was cloudy and smelled bad. In the anamnesis, boy admitted having a sexual contacts without using condoms with 3 partners. The urine analysis for *E.coli* was negative. Ultrasound did not show any abnormalities. Tests for gonorrhea and genital herpes were negative. What would be your diagnosis in this case?

- A. Prostatitis
- B. Vesicourethral reflux
- C. Syphilis
- D. Urinary tract infection caused by *Staphylococcus epidermidis*
- E. Neurogenic urinary bladder

327. A 17 years old adolescent came to military service office for a medical check-up. Medical commission revealed the following data: the young man was 180 cm tall, his weight was 70kg. His vision acuity was appropriate. Posture was appropriate, symmetrical skeleton development, spinal cord was with physiological lumbar lordosis and thoracic kyphosis, no evidence of flat feet. On physical

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examination: heart auscultation S1, accentuation without additional murmurs, pulse 75 bpm, BP was 120/80 mm/Hg. Chest examination: abdominal type of breathing, on auscultation normal vesicular sound, no accessory sounds. Abdomen during palpation soft, without pathological masses and painful points, liver and spleen not palpable. Sexual organ development appropriate to age. All additional investigations were in norm. What is your diagnosis in this case?

- A. Healthy adolescent
- B. Visual impairment
- C. Overweight
- D. Congestive heart failure
- E. Rheumatic fever

328. A 17 year old girl was brought to the Emergency department because she was feeling acute abdominal pain and nausea. The girl complained about feeling extreme nausea for the past one month and mother added that the girl had lost some weight as well. On physical examination: heart rate was 120 beats per minute, temperature 36.6°C, respiration rate 25 breaths per minute, blood pressure 135/65 mm/Hg. Patient also revealed that she has been in this condition since the time of forthcoming school exams which was in one month time. Her weight was 47 kg.

- A. Anorexia nervosa
- B. Anxiety disorder
- C. Irritable bowel syndrome
- D. Hypertension
- E. Pregnancy

329. A 15 years old girl was brought by her parents to psychologist. The psychologist asked for medical advice from Dermatology Department. The girl didn't not want to tell about her problems. Mother said that she was irritable, she was not participating in any kind of activities, she didn't want to attend the school and she was staying in her room and crying all the time. The dermatological investigation showed that, on her face and upper part of the chest there were areas of seborrhea, pustules, comedones and nodules. All symptoms appeared in one and half year ago. Psychological symptoms started to be more pronounced in last 6 months when she started to do make-up and that was not enough to hide changes on her face. What is diagnosis in this case?

- A. Depression due to acne vulgaris
- B. Allergic dermatitis due to excessive use of cosmetics
- C. Crohn disease
- D. Impetigo
- E. Sebaceous hyperplasia

330. A mother brought her 15 year old boy to a physician. Mother complained that the boy had problem at the school because he was not able to concentrate on the one thing and also he had lost his motivation. He had problem with sleep, memory, learning, impairments with thinking and solving problems. Sometimes he had short term memory loss, delusions and hallucinations. At the moment of examination patient was in the euphoric state also he had dry mouth, dry eyes, dilated pupils, HR 140 beat per minute, BP 130/100 mmHg and cough.

- A. Schizophrenia
- B. Brain tumor
- C. Attention deficit hyperactivity disorder
- D. Alcohol intoxication
- E. Canabinoids abuse

331. A term African-Polish female neonate, was found to have jaundice at 4<sup>th</sup> hour after birth. The neonate's red cells typed B, Rh+ while the mother's red cells typed O, Rh+. The mother's anti-B antibody titer was 256. A screen for fetomaternal hemorrhage was negative. The direct antiglobulin test was positive with the cord red cells and anti-B antibody was detected. The infant blood hemoglobin: 10.6 g/d (1<sup>st</sup> day N: 14-24 g/dl, 2<sup>nd</sup> day N: 15-23 mg/dl, 6<sup>th</sup> day N: 13-23 mg/dl), indirect bilirubin: 11,6 mg%, 182 µmol/l (1<sup>st</sup> day N: <10 mg%, N: <171 µmol/l). The peripheral blood smear

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demonstrated numerous RBCs, schistocytes, prominent microspherocytes, polychromatic and mitotic figures. An infectious disease evaluation was negative. The infant's indirect bilirubin peaked till 16, 1 mg% on 3<sup>rd</sup> day (N: <15 mg%). The infant's body weight is 2700g. What is your diagnosis and treatment for this particular patient?

- A. Physiological jaundice
- B. Spherocytic anemia
- C. Neonatal jaundice. ABO incompatibility
- D. Rhesus factor incompatibility
- E. Hepatitis C

332. A 5 day old female infant was brought to hospital with complaints of yellowish pigmentation of the skin, which appeared on the 2nd day of life. On physical examination: the baby was active. The child was icteric. Rest of the physical examination was normal. On admission complete blood count was in normal limits. Peripheral blood smear and reticulocyte counts were not remarkable for hemolysis. Total bilirubin of 27 g/dl (N: <12.0 mg/dl) with a direct bilirubin 1.5 g/dl (N: 0.0-0.2 mg/dl). An exchange transfusion was performed. Glucose-6-phosphate dehydrogenase and pyruvate kinase screening were normal. PT was 13 seconds (N: 11-15second), PTT 39 seconds (N: 42-54seconds), fibrinogen: 232 mg/dl (N: 200-500mg/dl), antithrombin: 374.1% (N: approximately 50%), protein-C 42.5% (N:70-90%), proteins 91.2%, bleeding time 4 minutes (N: 2-9 minutes). Abdominal ultrasonography revealed a mass with 2cm diameter at inferior pole of spleen, which had cystic components with heterogeneous echogenity, strongly suggesting subcortical hematoma. What is your diagnosis?

- A. Physiological jaundice
- B. Spherocytic anemia
- C. Pediatric splenomegaly
- D. Jaundice with splenic hematoma
- E. Hepatitis B

333. A jaundiced, 4 day old, 3.1 kg, girl born at term. The baby was discharged from the hospital on the 2nd day of life. After 4 days the body was completely yellow and the parent brought the child to the hospital. In the office, on day 4, mother reports that she is breastfeeding the baby every three hours and changing 2 wet diapers per day. The urine is described as dark yellow in color and the stools appear dark green. Physical examination revealed: Temperature 37.8°C, pulse rate beats 162 beats/min, respiratory rate 55 breaths/min, blood pressure 63/45 mm/Hg. The infant is jaundiced and irritable. The anterior fontanel is slightly sunken, the oral mucosa is tacky, and there was sign of jaundice in the lower extremities. The sclera of both eyes were icteric. The total bilirubin was 20 mg% with a direct fraction of 0.7 mg%. What would be your diagnosis and treatment?

- A. Neonatal hyperbilirubinemia
- B. ABO incompatibility
- C. Hepatitis B
- D. Hemolytic-uremic syndrome
- E. Alfa-thalassemia

334. A full term 2 days old boy was in the nursery and the mother noticed yellow color of the sclera, face, chest and baby refused feeding and had a high pitch cry. The newborn was examined in good daylight and dermal staining was performed face 2 mg/dL, upper chest 10 mg/dL. Total serum bilirubin level 12 mg/dL (N: 6 - 8 mg/dL). The physician prescribed phototherapy blue spectrum of 427 nm with irradiance 10  $\mu$ W/cm<sup>2</sup> and protection of eyes and genitals for 17 hours. He also encouraged the mother to breast-feed frequently without water or dextrose water. Follow up mother was told to bring the baby to the hospital if the baby looks too yellow or yellow discoloration appears on the skin beyond the legs. Reevaluation of total bilirubin level after 1 week.

- A. ABO incompatibility
- B. Crigler-Najjar syndrome
- C. Hepatitis B
- D. Hemolytic-uremic syndrome

## E. Physiologic jaundice

335. A 10 years old boy was admitted for his regular check up. His examination showed: T 36.8 °C, P 85 (N: 70 to 120 beats/min), RR 20 (N: 18-26 breaths/min), BP 120/80 mm/Hg, oxygen saturation 100% in R. Weight 32 kg and height 130cm. He is alert, active and in full consciousness. His conjunctiva were normal. Head, eyes, ear, nose and throat were all normal. His oral mucosa was moist and his tongue was pinkish. His neck was supple without adenopathy. His heart had a regular rhythm without any additional sounds. His lungs were clear with good aeration. His abdomen was flat, soft, and non-tender and liver edge was in normal size. The spleen was non-palpable. His genitalia and anus were normal. His pulse and perfusion were good. There were no edema, rash, or petechiae. He had no allergy and all vaccination was done according to schedule. Mantoux test was negative. Laboratory analysis without any changes. Urine analysis without any changes. What is your diagnosis?

- A. Underweight boy
- B. Hypertension
- C. Overweight boy
- D. Down syndrome
- E. Healthy 10-years-old boy

336. A 5 years old girl came to outpatient care with her mother. Family doctor performed routine pediatrics examination of the girl, which revealed following data: weight 20kg, height 111cm, BP 111/72 mm/Hg, resting heart rate 75/min, respiratory rate 20/min, body temperature 36,4°C. Developmental chart examination shows calm, but self-confident girl. She knew her age, days of the week and months, she could speak fluently, comprehensibly and using 5-7 words in the sentences. She was able to count by a concept of 10. She was also helping her mother in simple household chores and also by self-caring (preparing cereal for meal, dressing herself, brushing teeth ect.). Complete Blood Count shows: Hb 145 mg/L, RBC  $4,5 \times 10^{12}$  /L, WBC  $5,1 \times 10^9$  /L, NEUTROPHILS 45% (juvenile 0,5%, bands 3 %, segmented 41,5 %), LYMPHOCYTES 45 %, EOSINOPHILS 3 % , MONOCYTES-5%, BASOPHILS-1 %, ESR 6 mm/h.

- A. Parasitic disease
- B. Bacterial infection
- C. Healthy 5-years-old girl
- D. Overweight girl
- E. Underweight girl

337. 9 month old baby girl is brought to the pediatrician's office for a routine check up. On physical examination: height 74cm, weight 10 kg, head circumference 45 cm. Heart rate 100 beats per minute, blood pressure 80/55 mmHg, Temperature 36.6°C, respiratory rate was 25/min. All her immunization were given in time. The girl was breast-feeding 3 times a day and her diet also included carbohydrates, fresh juices and tender pieces of meat and also supplements of vitamin C. Fine motor skill: the child was holding objects with both hands and could drink up from a cup she sits without support, squats and stoops. She could pronounce 6 words and could uses her hands to point at something that she wanted. Cognitive: active comparison of toys and interaction with her friends. What is the diagnosis?

- A. Overweight baby
- B. Underweight baby
- C. Rickets
- D. Healthy 9-month old baby girl
- E. Child with mental retardation

338. A 16 year old boy was admitted to the hospital because of the car accident. He was in very bad condition, because of extensive burn injuries involving 35% of total body surface and massive blood loss. Twenty four hours following admission, he had developed oliguria. Laboratory studies showed leukocytosis, elevated blood urea nitrogen and serum creatinine, with a BUN: creatinine ratio of 30. Urine osmolality was 800 mOsmol/kg H<sub>2</sub>O, and fractional excretion of sodium at the level of 0,5%. What is your diagnosis in this particular case?

- A. Hemorrhagic shock complicated by Acute Renal Failure

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- B. Poststreptococcal glomerulonephritis
- C. Chronic renal failure
- D. Rupture of kidney
- E. Pyelonephritis

339. A 10 year old girl has an acute onset of fever up to 39°C with chills, cough, and pain on respiration in the right side of her chest. On physical examination: HR - 90/min, BP-95/60 mm Hg, RR- 26/min. There is dullness over the right lung on percussion. On X-ray: infiltrate in the right middle lobe of the lung. What is the diagnosis?

- A. Acute lung abscess
- B. Acute pleuritis
- C. Community-acquired lobar pneumonia of moderate severity
- D. Nosocomial lobar pneumonia
- E. Community-acquired bronchopneumonia

340. A 8 years old girl complains of a purulent discharge from the left nostril. The body temperature is 37,5<sup>0</sup>. The patient has been ill for a week and associates her illness with common cold. There are pain and tenderness on palpation of her left cheek. The mucous membrane in the left nasal cavity is red and turgid. The purulent exudate is seen in the middle meatus in maxillary. What is the most probable diagnosis?

- A. Common cold
- B. Influenza
- C. Acute purulent sphenoiditis
- D. Acute purulent ethmoiditis
- E. Acute purulent maxillary sinusitis

341. A 14 years old complains of muscle feebleness, weight loss, diarrhea, increased frequency of urination. Objectively: hyperpigmentation of skin, gums, internal cheek surfaces. AP is 90/58 mm Hg. Blood count: erythrocytes - 3,110<sup>12</sup>/L, Hb- 95 g/L, leukocytes - 9,410<sup>9</sup>/L, eosinophils - 7, segmentonuclear leukocytes - 45, stab neutrophils - 1, lymphocytes - 40, monocytes - 7, Na<sup>+</sup>- 115 mmole/L, K<sup>+</sup>- 7,3 mmole/L. What is the preliminary diagnosis?

- A. Pheochromocytoma
- B. Primary hyperaldosteronism
- C. Primary insufficiency of adrenal cortex
- D. Diabetes insipidus
- E. Congenital adrenal hyperplasia

342. A patient, aged 16, complains of headache, mainly in the frontal and temporal areas, superciliary arch, appearing of vomiting at the peak of headache, pain during the eyeballs movement, joint's pain. On examination: excited, t- 39<sup>0</sup>C, Ps- 110/min. Tonic and clonus cramps. Uncertain meningeal signs. What is the most likely diagnosis?

- A. Influenza with cerebral edema manifestations
- B. Influenza, typical disease duration
- C. Respiratory syncytial virus
- D. Parainfluenza
- E. Adenovirus infection

343. A 8 years old patient has complained of great weakness for 2 years. He fell seriously ill, the illness is accompanied by body temperature rise, indisposition, pain in joints and along the legs muscles. Objectively: violet-bluish erythema around eyes and over knee joints. HR- 120/min, heart sounds are weak. Blood count: leukocytes - 1210<sup>9</sup>/L, ESR- 40 mm/h.

344. What is the most probable diagnosis?

- A. Systemic lupus erythematosus
- B. Dermatomyositis

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- C. Rheumatoid arthritis
- D. Atopic dermatitis
- E. Reactive polyarthritis

345. In autumn a 17-year-old patient developed stomach ache that arose 1,5-2 hours after having meals and at night. He complains about pyrosis and constipation. The pain is getting worse after consuming spicy, salty and sour food, it can be relieved by means of soda and hot-water bag. The patient has been suffering from this disease for a year. Objectively: furred moist tongue. Abdomen palpation reveals epigastric pain on the right, resistance of abdominal muscles in the same region. What is the most likely diagnosis?

- A. Stomach ulcer
- B. Chronic cholecystitis
- C. Diaphragmatic hernia
- D. Duodenal ulcer
- E. Chronic pancreatitis

346. After supercooling a 14-year-old woman developed muscle pain, body temperature rise up to 39°C, headache, dysuria, positive Pasternatsky's symptom. In the urine: leukocyturia, bacteriuria. In blood: Decrease in Hb rate down to 103 g/l, left shift leukocytosis, ESR acceleration up to 32 mm/h. Blood urea - 6,0 millimole/l. What is the most likely diagnosis?

- A. Acute pyelonephritis
- B. Renal tuberclosis
- C. Acute glomerulonephritis
- D. Urolithiasis
- E. Acute cystitis

347. A 13 y.o. patient wasurgently admitted to the hospital with complaints of sudden weakness, dizziness, loss of consciousness, body weight loss, nausea, vomiting, severe pain in epigastric area, diarrhea, skin hyperpigmentation. What is the most probable diagnosis?

- A. Gout
- B. Acute gastroenteritis
- C. Meningoencephalitis
- D. Scleroderma
- E. Addisonic crisis

348. A 6-year-old male patient complains of piercing pain during breathing, cough, dyspnea. Objectively: t°- 37,3°C, respiration rate - 19/min, heart rate=Ps - 92/min; Vesicular respiration. In the inferolateral parts of chest auscultation in both inspiration and expiration phase revealed noise that was getting stronger at phonendoscope pressing and can be still heard after cough. ECG showed no pathological changes. What is the most likely diagnosis?

- A. Acute pleuritis
- B. Intercostal neuralgia
- C. Subcutaneous emphysema
- D. Spontaneous pneumothorax
- E. Pericarditis sicca

349. A 15-year-old female patient was admitted to the hospital after car accident with evident acrocyanosis, swollen cervical veins, enlarged liver, ascites. Cardiac borders are dilated. Heart sounds cannot be auscultated, apical beat is undetectable. AP is 100/50 mm Hg. X-ray picture of chest shows enlarged heart shadow in form of a trapezium. What pathology might have caused these symptoms?

- A. Hiatal hernia
- B. Exudative pleuritis
- C. Complex heart defect
- D. Cardiac tamponade
- E. Acute cardiac insufficiency

350. A 12-year old boy was brought into the outpatient department. The child complains of swelling of the face and puffiness around the eyes, subglottic edema, airway insufficiency, malaise, lethargy, abdominal pain, and fever 38° C during night time, less urine output and blood in urine. The patient recently had streptococcal pharyngitis, which lasted for 1 week. Physical examination revealed: BP: 135/75mmHg. Laboratory investigations: urinalysis: macroscopic hematuria; red blood cells cast and granular casts; proteinuria 2+. Serum C3 level was reduced. Oliguria. Positive Throat culture, antistreptolysin O titer was elevated. BUN concentration elevated. CBC: mild normochromic anemia present. Light microscope reveals diffuse mesangial cell proliferation with an increase in mesangial matrix. Electron microscope revealed subepithelial electron deposits “humps” were observed on the epithelial side of the glomerular basement membrane. What is your diagnosis?

- A. Acute renal failure
- B. Acute poststreptococcal glomerulonephritis
- C. Chronic renal failure
- D. Glomerulonephritis due to SLE
- E. Renal amyloidosis

351. A 17 years old boy came to the outpatient clinic complaining for edema of lower extremities, malaise, fatigue and hematuria. During physical examination BP was measured – 120/90. Renal biopsy was done and during the histological examination using the electron microscopy, numerous and larger deposits with spikes were seen.

- A. Membranous glomerulonephritis
- B. Poststreptococcal glomerulonephritis
- C. Renal amyloidosis
- D. Glomerulonephritis due to SLE
- E. Pyelonephritis

352. A 10 year old boy was admitted to the hospital with fever and cough after 1 day duration and receiving a 150-mg dose of Ibuprofen (5 mg/kg) from his family physician. He developed a generalized rash, facial angioedema, and shortness of breath 1 hour after the ingestion. The patient was noted to be tachypneic during examination with a respiratory rate of 54 breaths/minute and an oxygen saturation 89%. It was also noted that he was with bradycardia (heart rate from 40 to 60 beats per minute) and hypotension (blood pressure trough of 60/40 mmHg). Other physical findings included generalized urticaria, bilateral periorbital and perioral angioedema. What is your diagnosis?

- A. Acute renal failure
- B. Allergic reaction to NSAIDs
- C. Influenza
- D. Scleroderma
- E. Pulmonary embolism

353. A 3 year old girl was brought to a pediatrician's office immediately after developing itching on her skin and followed by development of wheals on the face (approximately 0.2 cm) and torso (approximately 10 cm). Swelling of the lips, eyelids and face. Another symptom was dry coughing after eating peanut butter. Physical examination revealed normal vital signs, generalized expiratory wheezing and swelling of face and wheals. Her weight was 13 kg. Her skin test demonstrates a strongly positive skin test 2 cm and a CAP-RAST test showed a high level of peanut-specific IgE. What is your diagnosis?

- A. Food poisoning
- B. Irritable bowel disease
- C. Foreign body aspiration
- D. Acute urticaria and angioedema
- E. Acute renal failure

354. Child at the age of six had generalised tonic-clonic seizures that were treated with phenobarbital. Within 3 weeks after initiation of treatment developed fever and skin rash developed. Temperature was

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38,7°C to 39,5°C. Multiple organ involvement was detected after extensive work-up. Skin rash initially was erythematous maculopapular eruption which rapidly progressed to toxic epidermal necrolysis. Laboratory tests revealed leukocytosis with eosinophilia, elevated C-reactive protein and liver enzymes as well as hepatosplenomegaly and abnormal coagulopathy levels.

- A. Encephalitis
- B. Epilepsy
- C. Anticonvulsant hypersensitivity syndrome
- D. Measles
- E. Idiopathic thrombocytopenic purpura

355. 7 year old boy was sent for consultation to the Children Hospital with complaints of erythematous rash over the face and trunk. The patient was treated already for 8 days, receiving Trimethoprim-Sulfamethoxazole, for acute otitis media. During the physical examination maculopapular rash and elevated body temperature (37.7°C) were found out.

- A. Allergic reaction on Sulfonamides
- B. Sinusitis caused by bacterial infection
- C. Measles
- D. Drug overdose
- E. Acute urticaria with angioedema

356. A 12 years old boy was brought to the emergency department with complaints of acute pain in the abdomen accompanied by nausea and vomiting twice in the morning. Anamnesis morbi showed that he was admitted in the hospital 4 weeks ago for treatment of acute pancreatitis. Physical examination revealed temperature 38.4°C, respiratory rate 18/min and heart rate 110/min. Upon palpation of the epigastric area a small mass was palpable at the tail of the pancreas. CBC: amylase and lipase were slightly elevated but within normal range and on abdominal CT scan cyst of about 6 cm was seen at the tail of the pancreas. The patient's weight was 35 kg. What would be your diagnosis and treatment in this particular case?

- A. Cancer of pancreas
- B. Chronic pancreatitis
- C. Pancreatic pseudocyst
- D. Diabetes mellitus type 1
- E. Pancreatic abscess

357. 14 years old girl was admitted into Children Emergency Care Unit with complaints of nausea, vomiting, fatigue, loss of appetite, weakness and abdominal pain. Mother informed about mental confusion and possible suicidal attempt of her daughter (she swallowed 30 pills of paracetamol and few pills of ibuprofen than mixed with ¼ bottle of vodka). According to mother nausea and vomiting appeared after 3 hours of the attempt. Laboratory findings: increased Lactate Dehydrogenase in plasma, transaminase 4500 U/l and bilirubin 200 µmol/l.

- A. Encephalitis
- B. Drug-induced liver disease
- C. Hepatitis A
- D. Acute gastroenteritis
- E. Depression

358. An 10 year old boy came with acute jaundice, fever, diarrhoea, loss of appetite, and pruritis. He had no history of chronic symptoms, medications or contacts with sick people. He was born at 34 weeks gestation by means of emergency caesarean section due to placental abruption. The mother received several blood transfusions before and after delivery but to the infant was not transfused. Both remained asymptomatic. The infant was breast fed briefly. On examination patient had jaundice and mild hepatomegaly. Laboratory test results were as follows: total bilirubin 153.9 µmol/l(N:5.1-17.0µmol/l); direct bilirubin: 125.8 µmol/l(N: 1.0-5.1 µmol/l); alanine aminotransferase: 199 U/l(N:5-40U/l); aspartate aminotransferase: 498 U/l(N: 5-40U/l); γ glutamyltranspeptidase: 151 U/l(N: 18-100U/l). Prothrombin and partial thromboplastin time were slightly elevated.

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- A. Hepatitis A
- B. Gastroenteritis
- C. Hepatic failure
- D. Hepatitis C
- E. Choledocholithiasis

359. A 10 years old boy has been treated in a hospital for a month. At the time of admission he had evident edemata, proteinuria - 7,1 g/L, protein content in the daily urine - 4,2 g. Biochemical blood analysis reveals permanent hypoproteinemia (43,2 g/L), hypercholesterolemia (9,2 mmol/L). What is the disease?

- A. Nephrotic glomerulonephritis
- B. Nephritic glomerulonephritis
- C. Acute pyelonephritis
- D. Acute cystitis
- E. Acute renal colic

360. A 4 month old child fell seriously ill: body temperature rose up to 38,5°C, the child became inert and had a single vomiting. 10 hours later there appeared rash over the buttocks and lower limbs in form of petechiae, spots and papules. Some haemorrhagic elements have necrosis in the centre. What is the most probable disease?

- A. Scarlet fever
- B. Hemorrhagic vasculitis
- C. Rubella
- D. Meningococemia
- E. Influenza

361. An 8-year-old boy fell ill acutely: he presents with fever, weakness, headache, abdominal pain, recurrent vomiting, then diarrhea and tenesmus. Stools occur 12 times daily, are scanty, contain a lot of mucus, pus, streaks of blood. His sigmoid gut is tender and hardened. What is your diagnosis?

- A. Cholera
- B. Salmonellosis
- C. Dysentery
- D. Escherichiosis
- E. Acute gastroenteritis

362. A 7 y.o. girl fell ill abruptly: fever, headache, severe sore throat, vomiting. Minute bright red rash appear in her reddened skin in 3 hours. It is more intensive in axillae and groin. Mucous membrane of oropharynx is hyperemic. Greyish patches is on the tonsills. Submaxillary lymph nodes are enlarged and painful. What is your diagnosis?

- A. Pseudotuberculosis
- B. Rubella
- C. Enteroviral infection
- D. Measles
- E. Scarlet fever

363. A 12 years old girl is complaining on pain in suprapubic area, frequent painful urination by small portions, temperature is 37,8°C. Pasternatsky symptom is negative. Urine analysis: protein - 0,033 g/L, WBC- 20-25 in f/vis, RBC- 1-2 in f/vis. What diagnosis is the most probable?

- A. Acute glomerulonephritis
- B. Acute cystitis
- C. Urolithiasis
- D. Dysmetabolic nephropathy
- E. Acute pyelonephritis

364. A 2-months-old child after preventive vaccination had a prolonged hemorrhage from the

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vaccination place and due to those an intramuscular hematoma. During examination of the child a considerable rise of prothrombin consumption and a significant prolongation of the activated partial thromboplastin time were found. What is the most probable diagnosis?

- A. Hemophilia
- B. Werlhof's disease
- C. Henoch-Schoenlein disease
- D. Hemorrhagic disease of infant
- E. Inborn afibrinogenemia

365. A 5 month old boy was born prematurely, he didn't suffer from any disease at the infant age and later on. Examination at an outpatient's hospital revealed paleness of skin, sleepiness. Blood count: Hb - 95 g/l, erythrocytes -  $3,5 \cdot 10^{12}/l$ , reticulocytes -  $9\%$ , colour index - 0,7, osmotic stability of erythrocytes - 0,44-0,33%, serum iron - 4,9 micromole/l. What is the most probable cause of anemia?

- A. B<sub>12</sub> deficiency
- B. Hemogenesis immaturity
- C. Infectious process
- D. Erythrocyte hemolysis
- E. Iron deficiency

366. A 7 y.o. child had elevation of temperature to  $40^{\circ}\text{C}$  in anamnesis. For the last 3 months he presents fusiform swelling of fingers, ankle joints and knee joint, pain in the upper part of the sternum and cervical part of the spinal column. What is the most probable diagnosis?

- A. Juvenile rheumatic arthritis
- B. Rheumatic fever
- C. Toxic synovitis
- D. Septic arthritis
- E. Osteoarthritis

367. A 1,5 y.o. child fell ill acutely with high temperature  $38^{\circ}\text{C}$ , headache, fatigue. The temperature declined on the fifth day, muscular pain in the right leg occurred in the morning, there were no movements and tendon reflexes, sensitivity was reserved. What is the initial diagnosis?

- A. Polyarthropathy
- B. Viral encephalitis
- C. Poliomyelitis
- D. Osteomyelitis
- E. Hip joint arthritis

368. A 3 year old child fell acutely ill, body temperature rose up to  $39,5^{\circ}\text{C}$ , the child became inert, there appeared recurrent vomiting, headache. Examination revealed positive meningeal symptoms, after this lumbar puncture was performed. Spinal fluid is turbid, runs out under pressure, protein concentration is 1,8 g/l; Pandy reaction is +++, sugar concentration is 2,2 millimole/l, chloride concentration - 123 millimole/l, cytosis is  $2,35 \cdot 10^9$  (80% of neutrophils, 20% of lymphocytes). What is the most probable diagnosis?

- A. Brain tumor
- B. Purulent meningitis
- C. Serous viral meningitis
- D. Subarachnoid hemorrhage
- E. Serous tuberculous meningitis

369. Examination of a 12 year old child revealed diffuse thyroid enlargement of the II degree. Heart auscultation revealed dullness of the heart sounds, heart rate was 64/min. The child has frequent constipations, anemia. Concentration of thyroglobulin antibodies is increased. What disease might have caused such symptoms?

- A. Autoimmune thyroiditis

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- B. Diffuse toxic goiter
- C. Thyroid carcinoma
- D. Thyroid hyperplasia
- E. Endemic goiter

370. A 3 m.o. child fell seriously ill, body temperature rised up to 37,8<sup>0</sup>C, there is semicough. On the 3-rd day the cough grew worse, dyspnea appeared. On percussion: resonant sound above lungs, on auscultation: a lot of fine moist and wheezing rales during expiration. What is the most probable diagnosis?

- A. Acute respiratory viral infection, bronchopneumonia
- B. Acute respiratory viral infection, bronchiolitis
- C. Acute respiratory viral infection, bronchitis
- D. Acute respiratory viral infection, focal pneumonia
- E. Bronchial asthma

371. A 10-year-old girl consulted a doctor about thirst, frequent urination, weight loss. She has been observing these symptoms for about a month. Objectively: no pathology of internal organs was revealed. Blood glucose is elevated. What is the diagnosis?

- A. Diabetes mellitus type 2
- B. Diabetes insipidus
- C. Diabetes mellitus type 1
- D. Pancreatic tumor
- E. none of the above

372. A child is 2 month old Inguinofemoral folds contain acutely inflamed foci with distinct borders in form of spots that are slightly above the surrounding areas due to skin edema. The rash has appeared during the week. Vesiculation and wetting are absent. What is the most probable diagnosis?

- A. Infantile eczema
- B. Dermatomycosis
- C. Psoriasis
- D. Diaper dermatitis
- E. Complicated cares of scabies