

1. A pediatrician needs to analyze the infant mortality rates. What must be taken as the unit of observation for this purpose?

- a. A case of death of a child after 28 days of life
- b. A case of death of a child within the first month of life
- c. A case of death of a child within the first 7 days of life
- d. A case of the death of a child during childbirth

e. A case of death of a child under one year of age

2. During an outdoors school event in hot weather, a 10-year-old girl lost her consciousness. Body temperature - 36.7°C. Objectively her skin is pale and cold to touch, her pupils are dilated. Blood pressure - 90/50 mm Hg. Heart rate - 58/min. What pathology occurred in this case?

a. Sunstroke

b. Syncope

c. Paralytic collapse

d. -

e. Sympathicotonic collapse

3. An 18-year-old girl complains of pain in her knee and ankle joints and a fever of 38.5°C. She has a history of acute tonsillitis that occurred 2 weeks ago. Objectively, the following is observed: edema of the joints, pain and limited mobility, annular erythema on the torso and proximal parts of the limbs. Auscultation detects the heart rate of 95/min., weakened heart sounds, and a soft systolic murmur over the apex. What is the most likely diagnosis in this case?

a. Acute rheumatic fever

b. Systemic scleroderma

c. Rheumatoid arthritis

d. Reactive arthritis

e. Systemic lupus erythematosus

4. A 65-year-old patient with a history of arterial hypertension complains of dizziness and palpitations that occurred throughout the last hour. Objectively, the following is observed: blood pressure - 80/40 mm Hg, heart rate - 150/min., pulse - 106/min. ECG revealed missing P wave and varying RR intervals, ventricular contraction rate is 136-148/min. What aid must be provided to the patient first?

a. Prescription of amiodarone intravenously

b. Urgent electrical cardioversion

c. Prescription of beta-blockers intravenously

d. Pacemaker implantation

e. Prescription of calcium channel blockers intravenously

5. A 17-year-old girl complains of pain and swelling of the second finger on the right hand. She had a manicure done three days ago. The pain appeared on the second day. Objectively, the periungual ridge is edematous, hyperemic, overhangs the nail plate, painful during palpation. What is the most likely diagnosis in this case?

a. Cutaneous felon

b. Subungual felon

c. Paronychia

d. Erysipeloid

e. Subcutaneous felon

6. A 25-year-old woman had an abortion half a year ago. She complains of loss of appetite, weakness, and arthralgia. Two weeks later, she developed dark urine and jaundice. Against this background, her general condition continues to deteriorate. Viral hepatitis is suspected. What marker of viral hepatitis is likely to be positive in the patient?

a. Anti-HBs

b. Anti-CMV IgM

c. Anti-HAV IgM

d. Anti-HBc IgM

e. Anti-HEV IgM

7. A 12-year-old child has been diagnosed with bilateral pneumonia of mycoplasma etiology with mild disease course. What drug must be prescribed for treatment in this case?

a. Second generation macrolides

b. Aminopenicillins

c. First generation cephalosporins

d. Antifungal agents

e. Aminoglycosides

8. For 2 weeks a 37-year-old HIV-positive man has been presenting with progressing dyspnea and body temperature up to  $37.7^{\circ}\text{C}$ . He was diagnosed with pneumocystic pneumonia. What etiologic drug is indicated in this case?

a. Acyclovir

b. Fluconazole

c. Metronidazole

d. Co-trimoxazole

e. Ceftriaxone

9. A 2-month-old girl is being transferred to formula feeding. She was born with the body weight of 3500 g. Currently, her body weight is 3900 g. What is the normal daily volume of feeding for this baby?

a. 730 mL

b. 650 mL

c. 600 mL

d. 690 mL

e. 750 mL

10. A 3-year-old girl was diagnosed with a bronchial asthma attack. Her saturation is 89%. She was taking no medicines. Choose the tactics for providing emergency care in this case.

a. Oxygen inhalation, intravenous administration of an antihistamine drug

b. Oxygen inhalation, repeated inhalations of short-acting beta-2-agonists

c. Oxygen inhalation and glucocorticosteroid inhalations

d. Oxygen inhalation, intravenous administration of Euphylline (Theophylline)

e. Oxygen inhalation, intravenous administration of prednisolone

11. A victim has a II-III degree burn injury that covers 15 % of the body surface. On day 20 after the injury, the patient presents with a sharp increase in the body temperature, general weakness, and frequent shallow respirations. The blood pressure is 90/50 mm Hg, the pulse is 112/min. What complication can be suspected in this case?

a. Pneumonia

b. Sepsis

c. Purulent bronchitis

d. Anaerobic infection

e. Acute intoxication

12. On the second day after overexposure to cold, a 19-year-old patient developed pain in the area of the kidneys, turbid urine, and a fever of  $38.4^{\circ}\text{C}$ . Complete blood count: leukocytes -  $9.8 \cdot 10^9/\text{L}$ . Urinalysis: protein - traces, erythrocytes - 2-3 in sight, leukocytes - all over the entire vision field. What is the most likely diagnosis in this case?

a. Systemic lupus erythematosus

b. Acute prostatitis

c. Renal tuberculosis

d. Acute pyelonephritis

e. Acute glomerulonephritis

13. A 5-day-old child has diffuse erythema, vesicles, erosions, cracks, and peeling of the epidermis. The boy looks as if he were scalded with boiling water. During examination, the child's general condition is extremely severe. The child is markedly anxious and refuses to eat. The body temperature is  $39.8^{\circ}\text{C}$ . The Nikolsky sign is positive. Hyperesthesia is observed. What is the most

likely diagnosis in this case?

- a. Exfoliative dermatitis
- b. Neonatal pemphigus
- c. Mycotic erythema
- d. Phlegmon of the newborn
- e. Finger's pseudofurunculosis (Abscessus multiplex infantum)

14. A 65-year-old man complains of asphyxia, cough with pink foaming sputum, sensation of lack of air, and fear of death. Objectively, he has orthopnea, pale skin, and acrocyanosis and is covered in cold sticky sweat. His respiration is harsh, in the lower posterior segments there are wet finely vesicular and moderately vesicular crackles on the both sides. His respiratory rate is 40/min. The heart sounds are markedly muffled. At the cardiac apex, the gallop rhythm is observed. Make the diagnosis:

- a. Croupous pneumonia
- b. Pulmonary edema
- c. Status asthmaticus
- d. Infarction pneumonia
- e. Pulmonary embolism

15. A 20-year-old man was brought to a clinic on the 7th day of illness with complaints of icteric skin and sclerae, dark urine, one episode of vomiting, low appetite, and fever of  $38^{\circ}\text{C}$  throughout the last 2 days. Three weeks ago he went fishing with friends, during which they all shared the same tableware. Objectively, he is inert,  $t^{\circ} - 36.8^{\circ}\text{C}$ , his skin and sclerae are icteric, the liver protrudes from under the edge of the costal arch by 3 cm and is tender on palpation; the spleen cannot be palpated. Patient's urine is dark, his feces are partially acholic. Make the diagnosis:

- a. Viral hepatitis A
- b. Hemolytic anemia
- c. Intestinal yersiniosis
- d. Infectious mononucleosis
- e. Leptospirosis

16. A 32-year-old woman presents with obesity (mostly her shoulders and torso are affected), hirsutism, and menstrual irregularities. She has purple-cyanotic striae and stretch marks on her shoulders, chest, abdomen, and thighs. What is the cause of striae development in this case?

- a. Catabolic effect of corticosteroid excess
- b. Insulin resistance
- c. Overproduction of androgens
- d. Hypergonadotropinemia
- e. Hypoestrogenemia

17. A 26-year-old woman complains of cramping abdominal pain, diarrhea with a significant amount of mucus and blood, and fever of  $37.5\text{--}38.0^{\circ}\text{C}$ . Objectively, her skin and mucosa are pale, the body type is asthenic. Palpation detects pain along the large intestine. Colonofibroscopy reveals edematous wall of the rectum and sigmoid colon, erosions, small ulcers, and mucus with blood in the lumen. What is the likely diagnosis in this case?

- a. Chronic enteritis
- b. Dysentery
- c. Crohn's disease
- d. Nonspecific ulcerative colitis
- e. Cancer of the large intestine

18. Two days after eating cold food, a 46-year-old man developed complaints of sharp pain in the throat and asphyxia. His respiration is noisy, respiratory rate - 26/min., temperature -  $39^{\circ}\text{C}$ . Laryngoscopically, the glottis is not visible and obscured by edematous tissues. What urgent medical procedure must be performed in this case?

- a. Nasal cannulas with the oxygen flow of 4 L/min
- b. Tracheostomy
- c. Intravenous administration of hormones

- d. Oxygen mask ventilation
- e. Administration of antispasmodics

19. After eating shrimps, a 25-year-old man suddenly developed skin itching, some areas of his skin became hyperemic or erupted into vesicles. Make the diagnosis:

- a. Psoriasis
- b. Scabies
- c. Acute urticaria**
- d. Hemorrhagic vasculitis (Henoch-Schonlein purpura)
- e. Urticaria pigmentosa

20. A 15-year-old girl complains of the absence of menstruations and periodic pain in her vagina. Examination of the external genitalia detected the following: the girl has the female pattern of hair growth, the labia majora are normally developed and cover the labia minora, the entrance to the vagina is covered with a protruding bluish-purple septum. What is the most likely diagnosis in this case?

- a. Ovarian dysfunction
- b. Vulvar endometriosis
- c. Hymenal atresia**
- d. Amenorrhea of unknown etiology
- e. Genital infantilism

21. An ambulance was called to a 45-year-old man. According to his family, the onset of the disease was sudden, after he returned from a ski resort. His body temperature increased up to  $38.7^{\circ}\text{C}$ , he developed headache and vomiting. Objectively, his skin is pale with a cyanotic tint, there is a thick hemorrhagic rash all over the body, sometimes with necrosis in the center. Blood pressure is 45/0 mm Hg, pulse is 126/min., low volume. The patient has marked nuchal rigidity and positive Kernig's sign. Make the provisional diagnosis:

- a. Poliomyelitis
- b. Influenza
- c. Typhus
- d. Vesicular rickettsiosis
- e. Meningococcal infection**

22. What food product can cause diphyllobotriasis, if insufficiently processed?

- a. Mutton
- b. Beef
- c. Fish**
- d. Pork
- e. Poultry

23. After a surgery for a left thigh phlegmon the disease progression was complicated by sepsis. On the 7th day after the surgery there are marked signs of a generalized inflammatory reaction, in blood there are signs of toxic anemia and progressing hypoproteinemia, bilirubin levels are 40  $\mu\text{mol/L}$ , AST and ALT exceed the norm by 2.5 times. Oliguria persists (700 mL of urine per day). Name the phase of sepsis progression:

- a. Catabolic phase**
- b. Recovery phase
- c. Mixed phase
- d. Anabolic phase
- e. Stress phase

24. A 17-year-old girl complains of a pain in her knee and ankle joints and body temperature up to  $39^{\circ}\text{C}$  2 weeks ago she had a case of acute tonsillitis. Objectively, her joints are swollen, sharply painful, and their mobility is reduced. On the skin of her trunk and limbs there are barely visible circle-shaped pale pink spots. Heart rate is 95/min., blood pressure is 90/60 mm Hg, heart sounds are weakened, there is a soft systolic noise over the apex. Make the provisional diagnosis:

- a. Erythema nodosum**

b. Rheumatoid arthritis

**c. Acute rheumatic fever**

d. Reactive arthritis

e. Systemic scleroderma

25. A 56-year-old patient complains of decreased appetite, weakness, palpitations, pain and a burning sensation in the tongue, heaviness in the epigastric region, and numbness in the limbs. Objectively, the following is observed: pale skin with a lemon-colored tint, Hunter's glossitis, enlarged liver and spleen. Complete blood count: erythrocytes -  $2.8 \cdot 10^{12}/L$ , hemoglobin - 100 g/L, color index - 1.2. Erythrocytes are large, often oval, with Jolly bodies and Cabot rings. What is the most likely diagnosis in this case?

a. Iron deficiency anemia

**b. B<sub>12</sub> and folate deficiency anemia**

c. Hemolytic anemia

d. Aplastic anemia

e. Chronic hepatitis

26. A newborn boy, born at 38 weeks of gestation with weight of 2200 g, presents with a ventricular septal defect, cataracts in both eyes, and sensorineural deafness. At the term of 12 weeks, the mother of the boy had a case of an influenza-like disease accompanied by a rash. In this case, the newborn will most likely be diagnosed with:

a. Toxoplasmosis

**b. Congenital rubella syndrome**

c. Congenital varicella syndrome

d. Congenital listeriosis

e. Cytomegalovirus infection

27. A 42-year-old man was hospitalized 3 hours after an injury with marked subcutaneous emphysema of the upper torso, dyspnea, and tachycardia of 120/min. X-ray detects no pneumothorax, but shows a significant expansion of the mediastinum in both directions. What emergency aid must be provided in this case?

a. Thoracoscopy

b. Puncture of the pleural cavity

**c. Drainage of the anterior mediastinum**

d. Drainage of the pleural cavity

e. Thoracotomy

28. A 1.5-month-old girl, who was born prematurely and is being breastfed, was brought to a pediatrician. What daily dose of vitamin D should the doctor prescribe for the prevention of rickets in this child?

a. 800 IU

**b. 1 000 IU**

c. 400 IU

d. 500 IU

e. 4 000 IU

29. A 28-year-old man is undergoing a treatment for pulmonary tuberculosis. He complains of shortness of breath and a sharp chest pain on the right that appeared suddenly. Percussion detects a bantbox resonance over the right lung, auscultation detects no breathing there. X-ray shows that the right lung is collapsed to its root by 1/2 of its volume, the heart and mediastinal organs are shifted to the left. What complication has developed in this patient?

a. Pleural empyema

b. Dry pleurisy

c. Exudative pleurisy

d. Pulmonary infarction

**e. Spontaneous pneumothorax**

30. An 8-year-old child is being monitored for growth retardation. The child was born with asphyxia

and the body weight of 2800 g. He studies well at school. His parents are of average height. Objectively, height - 107 cm, body weight - 23 kg, he has underdeveloped facial skeleton that resembles a doll's face. The hair is thin, the skin is dry with an icteric tint. Subcutaneous adipose tissue is well developed on the neck, chest, and abdomen. The muscles are underdeveloped. What is the most likely diagnosis in this case?

- a. Chondrodystrophy
- b. Pituitary dwarfism**
- c. Craniopharyngioma
- d. Fanconi syndrome
- e. Down syndrome

31. Forensic examination of the body of a baby detects the following: weight - 3500 g, body length - 50 cm, the umbilical cord is smooth, moist, shiny, without signs of drying, lung float tests are positive. What is indicated by the results of the lung float tests in this case?

- a. Primary atelectasis
- b. Hyaline membrane disease
- c. Secondary atelectasis
- d. The child was born dead
- e. The child was born alive**

32. The patient complains of an inflammatory infiltration in the middle third of the left forearm. It is the first occurrence of this condition in the patient. In the middle third of the left forearm there is an inflammatory infiltration up to 3 cm in diameter that protrudes in a cone-like shape above the surface of the skin. The skin over the infiltration is hyperemic, edematous, its palpation is sharply painful. On the infiltration apex there is a small accumulation of pus with a black dot in the center. Body temperature is 37.6°C. What disease is described?

- a. Carbuncle on the forearm
- b. Furuncle on the forearm**
- c. Inflammatory infiltration of the forearm
- d. Phlegmon of the forearm
- e. Erysipelas of the forearm

33. A 74-year-old woman came to a doctor complaining of a pain in her right inguinal region. The signs appeared suddenly, approximately 2 hours ago. The woman notes that she already had these signs 3 weeks ago, but back then they disappeared on their own after she lay down. Objectively, palpation detects below the Poupart's ligament a sharply painful, dense, and tense formation 3.5 cm in diameter. The Dejerine sign (aggravation on coughing) is negative. What is the most likely diagnosis in this case?

- a. Inguinal lymphadenitis
- b. Acquired strangulated femoral hernia**
- c. Acquired incarcerated femoral hernia
- d. Acquired strangulated inguinal hernia
- e. Acquired incarcerated inguinal hernia

34. A 40-year-old man, a welder, uses manganese electrodes in his line of work (18 years of experience). He complains of difficulties with writing, bad mood, inertness, gait abnormalities, problems with speech, and hand tremors. Objectively the following is observed in the patient: hypomimia, increased muscle tone of plastic type, and quiet monotonous speech, tremor of the tongue, pill-rolling tremor of the fingers, and retropulsion. What syndrome developed in this patient due to manganese poisoning?

- a. Meningism
- b. Polyneuritic syndrome
- c. Hypothalamic syndrome
- d. Parkinsonism**
- e. Vestibular syndrome

35. A 30-year-old man has received second-degree burns that cover 40% of his body. On the fourth day after the injury, his general condition acutely deteriorated. He developed inspiratory dyspnea,

frequent cough with frothy sputum, and cyanotic skin. Auscultation detects numerous wet crackles in the lungs. His blood pressure is 110/60 mm Hg, heart rate - 100/min., respiration rate - 32/min., central venous pressure - 100 mm H<sub>2</sub>O, total protein - 50 g/L, Ht - 30%, Hb - 90 g/L. ECG shows sinus tachycardia. What mechanism of pulmonary edema pathogenesis is the main one in this case?

- a. Surfactant dysfunction
- b. Pulmonary hypoventilation
- c. Decreased plasma osmotic pressure**
- d. Decreased contractility of the myocardium
- e. Hypervolemia of the pulmonary circulation

36. Before her discharge from a hospital, a full-term newborn girl on the 3rd day of her life developed a recurrent vomiting with blood and stool resembling a "raspberry jelly". It is known that her mother refused to let her child receive any intramuscular injections. What laboratory test will be the most informative for confirmation of the diagnosis?

- a. Partial thromboplastin time
- b. Bleeding time
- c. Prothrombin time**
- d. Thrombin time
- e. Platelet count

37. A 63-year-old woman has undergone a surgery for a large multinodular euthyroid goiter. With technical difficulties, a subtotal resection of both lobes of the thyroid gland was performed. On the fourth day after the surgery, the patient developed abdominal pain and muscle spasms in her face and arms. Chvostek and Trousseau signs are positive. What is the most likely cause of the patient's condition?

- a. Hypoparathyroidism**
- b. Thyrotoxic crisis
- c. Tracheomalacia
- d. Damage to the recurrent laryngeal nerve
- e. Postoperative hypothyroidism

38. A 9-year-old boy is in a severe condition. His body temperature is 38-39°C, he has nosebleeds and complains of pain in his bones. Objectively, the boy presents with acute pallor, hemorrhagic rash, and ulcerative necrotizing stomatitis. All the groups of lymph nodes are enlarged. The liver is +5 cm. The spleen is +4 cm. What test will be decisive for diagnosis-making in this case?

- a. Abdominal ultrasound
- b. X-ray of the mediastinum
- c. Myelogram**
- d. Immune complex testing
- e. Complete blood count

39. During regular examination of a 2-year-old boy, he presents with enlarged left kidney, painless on palpation. The right kidney was undetectable on palpation. Excretory urography shows no contrast on the right. Cystoscopy detected hemiatrophy of the urinary bladder trigone, the right ureteral orifice is not detected. What pathology is it?

- a. Agenesis of the right ureter
- b. Agenesis of the right kidney**
- c. Hypoplasia of the right kidney
- d. Ectopic right ureteral orifice
- e. Dystopia of the right kidney

40. A 23-year-old woman, who works as a milk and dairy inspector, after the miscarriage suffers from high fever up to 38.6°C, recurring chills, excessive sweating. Objectively: polyadenitis, pain in the lumbosacral spine, swollen left knee joint, enlarged liver and spleen. What diagnosis is most likely?

- a. Yersiniosis
- b. Toxoplasmosis
- c. Brucellosis**
- d. Polyarticular rheumatoid arthritis



e. Sepsis

41. A patient 1 year ago had a Q wave myocardial infarction of the posterior wall of the left ventricle. For the last 2 weeks he has been suffering from daily attacks of atrial fibrillation and bradycardia episodes, accompanied by bouts of vertigo. What tactics is the most advisable in this case?

a. Pacemaker implantation

b. Prescription of digoxin

c. Prescription of amiodarone

d. Prescription of procainamide

e. Prescription of bisoprolol

42. A man suddenly developed a sharp retrosternal pain that radiated into the left arm. Objectively, the patient was excited, his skin was pale, the respiration rate was 38/min., the blood pressure was 180/110 mm Hg. Later he lost his consciousness, fell down, the pulse on the major vessels could not be detected, the pupils were evenly dilated. What is the diagnosis in this case?

a. Agonal state

b. Clinical death

c. Cerebral circulation disorder

d. Coma

e. Heart attack

43. A parturient woman has been in labor for 8 hours. The labor activity is weak, contractions last for 25 seconds and occur twice per 10 minutes. Vaginal examination shows cervical opening of 4 cm, the baby is in the cephalic presentation. During examination the woman's waters broke. The waters contained meconium. Fetal heart rate is 90/min., dull. What tactics of labor management must be chosen in this case?

a. Urgent delivery by means of a cesarean section

b. Observation and treatment of fetal distress

c. Prescribe labor stimulation with oxytocin solution

d. Continue the conservative management of labor with continuous monitoring of the fetus

e. Apply obstetric forceps

44. A 20-year-old woman complains of headaches, vertigo, tearfulness, vomiting, pain in the area of the heart, and tachycardia. The signs appear 6-7 days before menstruation and disappear in the first days of menstruation. Make the diagnosis:

a. Metabolic craniopathy

b. Algomenorrhea

c. Stein-Leventhal syndrome

d. Diencephalic syndrome

e. Premenstrual syndrome

45. A 46-year-old woman was awakened at 3 a.m. by a sharp pain in her right subcostal region that irradiated into her right shoulder. The woman is anxious, had two episodes of vomiting, notes fever and excessive sweating. Her temperature is 39.0°C. Objectively, her abdominal muscles are tense in the right subcostal region. Make the diagnosis:

a. Benign stricture of the common bile duct

b. Acute cholecystitis

c. Peptic ulcer disease

d. Cholelithiasis

e. Unstable angina pectoris

46. Thirty minutes after an intramuscular injection of ampicillin, a 35-year-old woman developed sharp weakness, itching of the face and hands, nausea, cough, dyspnea, and chest pain. Objectively, she has cyanosis, edema of the eyelids, face, and neck, and moist skin with a red rash. Pulse - 120/min., blood pressure - 70/20 mm Hg. Her heart sounds are dull. Her respiration is rapid and shallow, with numerous heterogeneous wet crackles. What drug must be administered first, when starting the urgent therapy in this case?

a. Dopamine



b. Astmopent (Orciprenaline)

c. Euphyllin (Theophylline)

**d. Adrenaline**

e. Prednisolone

47. On examination a man presents with the following signs: progressing weakness, loss of working ability, rapid physical and mental fatigability, sensations of cold and hunger, and weight loss. What type of alimentary disorder is it?

a. Dietary fiber deficiency

b. Mineral deficiency

c. Vitamin deficiency

**d. Protein-energy undernutrition**

e. Polyunsaturated fatty acid deficiency

48. A full term baby born from the 1st noncomplicated pregnancy with complicated labor was diagnosed with cephalohematoma. On the 2nd day of life the child developed jaundice; on the 3rd day of life there appeared neurological changes: nystagmus, Graefe syndrome. Urine is yellow, feces are golden-yellow. The mother's blood group is A (II) Rh<sup>-</sup>, the child's - A (II) Rh<sup>+</sup>. On the 3rd day the results of the child's blood test are as follows: Hb- 200 g/l, erythrocytes -  $6,1 \cdot 10^{12}/l$ , blood bilirubin - 58  $\mu\text{mol/l}$  due to the presence of its unconjugated fraction, Ht- 0,57. In this case the jaundice is caused by:

**a. Craniocerebral birth injury**

b. Physiologic jaundice

c. Hemolytic disease of newborn

d. Atresia of bile passages

e. Fetal hepatitis

49. An agitated patient keeps trying to look behind the door and into the next room, because he is convinced that his friends are there. He claims that he hears a conversation between his friends and strangers, despite there being no one nearby. He tries to convince the doctor that arguing about "his punishment" is occurring behind the wall. He loudly repeats the phrases that he claims he has heard from behind the wall. What pathological condition is observed in the patient?

a. Confabulations

b. Delirium

c. Verbal illusions

**d. Acute hallucinosis**

e. Intrusive thoughts

50. A 19-year-old patient developed persistent macrohematuria, dyspnea, and hemoptysis after a case of acute respiratory viral infection. Chest X-ray shows signs of bilateral disseminated damage. Within 2 weeks, the patient's condition sharply deteriorated, creatinine levels increased to 327  $\mu\text{mol/L}$ . What is the most likely diagnosis in this case?

a. Acute glomerulonephritis

b. Paraneoplastic nephropathy

c. Hemorrhagic vasculitis

**d. Goodpasture syndrome**

e. Wegener's granulomatosis

51. A person with peptic ulcer disease of the stomach, who undergoes no treatment and periodically has pain in the epigastrium and sour eructation, suddenly developed general weakness, palpitations, dizziness, and "coffee grounds" vomiting, later melena appeared as well. Objectively, the patient has pain in the epigastrium and positive Mendel sign. Blood test revealed the following: hemoglobin - 82 g/L, leukocytes -  $7,5 \cdot 10^9/L$ , ESR - 22 mm/hour. What complication has developed in the patient?

a. Portal hypertension

b. Intestinal obstruction

c. Ulcer malignization

d. Pleural empyema

**e. Gastrointestinal bleeding**

52. A 25-year-old woman complains of pain in her right iliac region that lasts for 10-12 days already and a menstruation delay of 7-8 weeks. Palpation detects pain in the right iliac region. Gynecological examination detects pain in the right vaginal fornix, but no enlargement of the uterus or ovaries. A right-sided ectopic pregnancy is suspected. What examination method would be optimal in this case?

a. Ultrasound

b. Pneumogynecography

c. Pelvic X-ray

d. Thermography

e. Metrosalpingography

53. A 3-year-old child has episodes accompanied by cyanosis, sudden anxiety, and squatting. Objectively, the child has "drumstick" deformation of the finger phalanges and nails that resemble a clockface. The cardiac dullness boundaries are shifted to the left and right. A systolic tremor can be detected in the second intercostal space near the left edge of the sternum. A coarse systolic murmur can be heard with p.max in the second intercostal space. The second heart sound is weakened over the base of the heart. X-ray shows that the heart is in the form of a "wooden shoe", the pulmonary pattern is poorly visible. What is the most likely diagnosis in this case?

a. Atrial septal defect

b. Dilated cardiomyopathy

c. Tetralogy of Fallot

d. Ventricular septal defect

e. Primary bacterial endocarditis

54. A 13-year-old boy complains of a dry cough and shortness of breath. The onset of the disease was one year ago. He has brief asphyxia attacks that occur 1-2 times per month. Objectively, the child is anxious and has expiratory dyspnea, his skin is pale, his nasolabial triangle is cyanotic. His respiratory rate is 48/min. Percussion produces a banbox resonance over the lungs; auscultation detects weakened breathing with bilateral dry wheezing. Forced expiratory volume is 80% of the normal. What medicine should be prescribed to this boy?

a. Salbutamol

b. Prednisolone

c. Suprastin (Chloropyramine)

d. Euphyllin (Aminophylline)

e. Indomethacin

55. A 76-year-old patient complains of difficulty urinating at night, with urination occurring up to 3 times, and a feeling of incomplete emptying of the bladder. This condition has been observed for 2 years already. Objectively, after the act of urination, percussion detects dullness over the pubis. The sign of costovertebral angle tenderness (Pasternatski's sign) is negative. The external genitalia are normal. Rectal examination detects that the prostate is enlarged to 2-3 times of its normal size, smooth, elastic, symmetrical, with clear contours. The intestinal mucosa is mobile over the prostate. What is the most likely diagnosis in this case?

a. Prostate adenoma

b. Prostate cancer

c. Prostate tuberculosis

d. Prostate abscess

e. Chronic prostatitis

56. A 48-year-old woman developed insomnia, depressive mood, anxiety, fears and suicidal thoughts after the death of her husband that occurred one month ago. During her stay in the hospital she speaks in a low voice, is depressed, anxious, avoids sleeping, refuses to eat. What medications should be prescribed in this case?

a. Nootropics

b. Group B vitamins

c. Anticonvulsants

d. Antipsychotics

e. Antidepressants

57. A child with chronic carditis, heart failure class IIA, who is being treated with digoxin, developed increasing bradycardia, nausea, vomiting, dizziness, and disturbed sleep. ECG shows an extrasystole, PQ is 0.18. What is the most likely cause of this condition?

a. Overdose or intolerance of cardiac glycosides

- b. Hypokalemia
- c. Acute intestinal infection
- d. Pulmonary edema
- e. First-degree atrioventricular block

58. In the inpatient gynecological unit within a year 6500 women underwent treatment. They spent there a total of 102000 bed-days. What indicator of the gynecological unit work can be calculated based on these data?

- a. Number of beds by hospital department
- b. Bed turnover rate
- c. Planned bed occupancy rate per year
- d. Average bed occupancy rate per year

e. Average length of inpatient stay

59. A 3-year-old child was hospitalized with generalized tonic-clonic seizures that last 50 minutes already and occurred against the background of hyperthermic syndrome caused by influenza. The child was receiving no therapy. What aid must be provided for urgent treatment of the seizure syndrome in this case?

- a. Urgently apply cold compresses
- b. Prescribe paracetamol in age-appropriate doses
- c. Administer phenobarbital intramuscularly

d. Administer lorazepam intravenously

e. Administer calcium gluconate intravenously

60. After a pain attack in the right subcostal area, a 58-year-old woman with overnutrition developed icteric skin and sclera, light-colored feces, and dark urine. Her abdomen is distended and painful on palpation in the right subcostal area. Palpation detects liver enlargement by 2-3 cm. Blood test: total bilirubin - 90  $\mu\text{mol/L}$ , conjugated bilirubin - 60  $\mu\text{mol/L}$ . What method of examination will be the most informative for diagnosis clarification?

- a. US of the hepatopancreatobiliary zone
- b. Intravenous cholangiography
- c. Infusion cholangiography

d. Retrograde cholangiopancreatography

e. Percutaneous transhepatic cholangiography

61. A 15-year-old boy complains of periodical headaches and fatigability. On examination, the boy is active, his psychoemotional development corresponds with his age, his skin is pale and clammy. No abnormalities of the internal organs were detected. Blood pressure is 120/80 mm Hg. Noticeable is the excessive subcutaneous fat that is evenly distributed throughout the body. The doctor suspects obesity in the child. What parameter should be measured first to confirm this diagnosis?

a. Body mass index

- b. Thickness of subcutaneous fat
- c. Body mass to height ratio
- d. Obesity of family members
- e. Body mass

62. A 45-year-old man has been suffering from duodenal ulcer disease for 5 years. He complains of weakness, dizziness, dryness of the skin. Objectively: the skin and visible mucosa are pale, chapped lips; heart rate is 100/min., BP- 100/70 mm Hg, systolic murmur at all points on heart auscultation. All other internal organs are unchanged. Fecal occult blood test is positive. Blood test: erythrocytes -  $3,1 \cdot 10^{12}/\text{l}$ , Hb- 88 g/l, color index - 0,7, leukocytes -  $4,6 \cdot 10^9/\text{l}$ , platelets -  $350 \cdot 10^9/\text{l}$ , ESR- 21 mm/hour, anisocytosis, poikilocythemia, serum iron - 9,5  $\mu\text{mol/l}$ . What treatment tactics would you choose?

a. Corticosteroids, cytostatics

b. Intramuscular introduction of 500 mkg of cyanocobalamin

**c. Iron preparations, balanced diet**

d. Ascorbic acid, calcium chloride

e. Concentrated red cells transfusion

63. A 37-year-old patient was repeatedly treated in a psychiatric hospital. The current hospitalization was due to behavioral disorders in the form of reticence, refusal to eat, periodical chaotic excitement with stereotyped movements. During the examination, the patient is sluggish, remains in bed, and no contact with him can be made. He does not answer any questions, his position is monotonous, he is hypomimic. The "proboscis" sign, the waxy flexibility of the muscles, and the "psychological pillow" sign are observed. This condition lasts for a week already. What is the provisional diagnosis in this case?

a. Simple-type schizophrenia

b. Reactive stupor

**c. Catatonic schizophrenia**

d. Hebephrenic schizophrenia

e. Schizophrenia with paranoia

64. A 30-year-old man complains of petechial hemorrhages that suddenly appeared on the skin of his legs two days ago. Objectively, multiple hemorrhages in the form of asymmetrically located ecchymoses are observed on the skin of his thighs and lower legs. No changes were detected in the internal organs. Complete blood count: hemoglobin - 126 g/L, erythrocytes -  $3.9 \cdot 10^{12}/L$ , leukocytes -  $5.2 \cdot 10^9/L$ , platelets -  $15 \cdot 10^9/L$ . What is the most likely diagnosis in this case?

a. Hemorrhagic vasculitis

b. Hemophilia A

**c. Idiopathic thrombocytopenic purpura**

d. DIC syndrome

e. Meningococemia

65. An 8-year-old boy received a hit to the head with a ball during a physical training lesson. Over the next few days he was complaining of headache and nausea and had three episodes of vomiting. His parents did not take him to a physician. Six months later, the parents and the teachers began to notice that the boy started experiencing episodes, when his face would become red and he would freeze for a few seconds, focusing his gaze on a single point. While in this state, the boy was not responding to people calling his name. What is the most likely diagnosis in this case?

a. Atonic absence seizure

**b. Simple absence seizure**

c. Attack of focal motor epilepsy

d. Syncopal state

e. Vago-insular paroxysm

66. A 58-year-old man, a heavy drinker and smoker, came to a hospital with complaints of constant coughing and shortness of breath. Lately, he has been losing weight. Objectively, his cervical lymph nodes are enlarged and dense, the tissues above them exhibit no tension. Chest X-ray shows fibrosis of an upper pulmonary lobe and left-sided pleurisy. The pleural fluid is straw-colored, with protein levels of 52 g/L and a high lymphocyte count. Malignant cells were not detected. Inoculation of the pleural fluid produced no microbial growth one week later. Make the diagnosis:

a. Sarcoidosis

b. Atypical pneumonia

c. Systemic lupus erythematosus

d. Bronchiectasis

**e. Pulmonary tuberculosis**

67. When planning treatment of a patient, it was decided to use a medicine with evidence level A) What trials produce the evidence that allows to classify the medicine as level A?

a. Data obtained from many non-randomized trials

b. Expert consensus

c. Data obtained from one randomized clinical trial

d. Case-control studies

e. Data obtained from several randomized clinical trials

68. A 58-year-old patient was delivered to an admission room with complaints of pain in the thorax on the left. On clinical examination: aside from tachycardia (102/min.) no other changes. On ECG: pathologic wave Q in I, aVL, QS in V1, V2, V3 leads and 'domed' ST elevation with negative T. What diagnosis is most likely?

a. Acute left ventricular posterior myocardial infarction

b. Variant angina pectoris

c. Acute left ventricular anterior myocardial infarction

d. Exudative pericarditis

e. Aortic dissection

69. A 14-year-old girl has fainted during a meeting. The day before she complained of a headache. The skin is pale, the limbs are cold, shallow breathing, heart sounds are muffled; heart rate is 51/min.; BP is 90/50 mm Hg. The abdomen is soft. Meningeal symptoms are negative. Make the provisional diagnosis:

a. Acute left ventricular failure

b. Unconsciousness

c. Acute right ventricular failure

d. Collapse

e. Respiratory failure

70. Such parameters as blood pressure and the patient's age were studied in 200 patients with essential hypertension. What statistical value should be used to measure how strong the connection is between these two parameters?

a. Representativeness error

b. Correlation coefficient

c. Coefficient of variation

d. Sigma deviation

e. Student's coefficient

71. A 17-year-old young man demands a plastic surgery. He thinks that it's impossible to live with such an ugly nose as his. He claims that wherever he is, everyone is laughing at him and mocking him behind his back. He walks with a cap pulled low over his face, turns his face downwards, and pulls up his scarf up to his eyes. Objectively, there are no indications for rhinoplasty - the young man has a nearly classical shape of the nose. What psychopathological condition is it?

a. Dysmorphomania

b. Body schema disorder

c. Capgras syndrome

d. Intrusive thoughts

e. Hypochondriacal neurosis

72. A 55-year-old man on the 3rd day after an acute anterior myocardial infarction complains of shortness of breath and a dull pain behind the sternum that decreases when he leans forward. Objectively, his blood pressure is 140/80 mm Hg and his heart sounds are muffled. ECG shows atrial fibrillation with the ventricular rate of 110/min., pathological Q wave, and ST segment elevation in the right-sided chest leads. Make the diagnosis:

a. Dressler syndrome

b. Dissecting aortic aneurysm

c. Tietze syndrome

d. Acute pericarditis

e. Pulmonary embolism

73. A 28-year-old woman came to a doctor with complaints of facial edema, moderate leg edemas, and urine that periodically assumes the color of <<meat slops>>. As a teenager, she had frequent tonsillitis. Objectively, her skin is pale,  $t^{\circ} - 36.8^{\circ}\text{C}$ , pulse - 68/min., rhythmic, blood pressure - 170/110 mm Hg. What changes in the patient's urine are the most likely in this case?

- a. Increased specific gravity, hematuria, bacteriuria
- b. Decreased specific gravity, proteinuria, a small amount of urine sediment
- c. Decreased specific gravity, proteinuria, myoglobinuria
- d. Erythrocyturia and uricosuria
- e. Proteinuria, hematuria, cylindruria**

74. A 23-year-old patient had taken 1 g of aspirin to treat acute respiratory infection. After that he developed an asthmatic fit with labored expiration that was arrested by introduction of aminophylline. The patient's medical history is not burdened with allergies. The patient has undergone two surgeries for nasal polyposis in the past. What diagnosis is most likely?

- a. Aspirin-induced asthma**
- b. Symptomatic bronchospasm
- c. Infectious allergic bronchial asthma
- d. Atopic bronchial asthma
- e. Exercise-induced asthma

75. In medical business, the profit of a company must be included in the price of its medical services. What traditional criteria make up the term "price"?

- a. Profitability, income, fixed costs
- b. The sum of all production costs
- c. Cost price, profit, taxes**
- d. Variable costs, cost price
- e. Gross expenses, use value

76. Screening detected phenylketonuria in a two-week-old baby. What treatment must be prescribed for this child to prevent severe complications in the future?

- a. Special diet**
- b. Sunbathing
- c. Antibiotic therapy
- d. Vitamin therapy
- e. Hormone therapy

77. A 40-year-old victim of a traffic accident sustained the following injuries: closed diaphyseal femur fracture, brain concussion, multiple rib fractures, hemopneumothorax, degloving shin injuries. What injuries require the most urgent attention?

- a. Closed diaphyseal femur fracture
- b. Multiple rib fractures, hemopneumothorax**
- c. All injuries are equivalent
- d. Brain concussion
- e. Degloving shin injuries

78. A pregnant woman suffers from essential hypertension of the first degree. At 35 weeks of gestation, she developed edemas of the legs and anterior abdominal wall. Her 24-hour urine protein is 5 g/L, the blood pressure increased to 170/120 mm Hg. She developed a headache and her vision became worse. Four hours of intensive treatment had no effect. What tactics would be necessary in this case?

- a. Labor induction
- b. Preparation of the cervix for preterm birth
- c. Continuation of the intensive therapy
- d. Immediate delivery by caesarean section**
- e. Conservative management of the delivery

79. A pregnant woman at 34 weeks of gestation underwent dopplerometry of umbilical circulation, which revealed a reverse diastolic component. Objectively, the height of the uterus is 27 cm above the pubic bone, the head of the fetus is mobile and located above the entrance to the lesser pelvis. Fetal heartbeat is 136/min. Vaginal examination shows that the uterine cervix is closed, its length is 3 cm. What tactics should the obstetrician choose?

- a. Fetal biophysical profile**

**b. Urgent cesarean section**

- c. Ultrasound photometry of the fetus
- d. Repeated dopplerometry next day
- e. Labor induction with oxytocin

80. A 32-year-old man came to a doctor on day 5 after the onset of the disease. He complains of a fever of 39.8°C, headache, pain in the calf muscles, pain in the back, and lumbar pain. Objectively, the face is hyperemic, the sclera is icteric, hemorrhages are observed on the skin of the torso and limbs. The patient presents with hepatosplenomegaly. The sign of costovertebral angle tenderness is positive. Diuresis - 450 mL. What is the most likely diagnosis in this case?

- a. Brucellosis
- b. Typhus
- c. Infectious mononucleosis

**d. Leptospirosis**

- e. Measles

81. A woman with the pregnancy term of 8 weeks complains of elevated temperature up to 37.6°C, skin rash that can be characterized as macular exanthema, enlargement of posterior cervical and occipital lymph nodes, small amount of bloody discharge from the genital tracts. She was examined by the infectious diseases specialist and diagnosed with rubella. What tactics should the obstetrician-gynecologist choose?

- a. Prescription of antiviral therapy
- b. Treatment of incipient abortion

**c. Abortion**

- d. Prescription of hemostatic therapy
- e. Prescription of antibacterial therapy

82. Laboratory quality control of drinking water from the tap had the following results: turbidity - 1.5 mg/m<sup>3</sup>, odor - 3 points, taste - 2 points, metallic, color - light yellow, chromaticity - 20°, temperature - 12°C. What parameter does not meet the hygienic requirements?

**a. Odor**

- b. Taste
- c. Temperature
- d. Turbidity
- e. Chromaticity

83. A 48-year-old man complains of constant pain in the upper abdomen, predominantly on the left, which aggravates after eating, diarrhea, loss of weight. The patient has alcohol use disorder. Two years ago he had a case of acute pancreatitis. Blood amylase is 4 g/hour·l. Feces analysis: steatorrhea, creatorrhea. Blood sugar is 6,0 mmol/l. What treatment should be prescribed?

- a. Insulin

**b. Panzinorm forte (Pancreatin)**

- c. Gastrozepin (Pirenzepine)
- d. No-Spa (Drotaverine)
- e. Contrykal (Aprotinin)

84. A 35-year-old woman complains of pain in her right lower leg. The pain intensifies during walking. Objectively, the skin on her right lower leg is red and hyperemic along the varicosity of the small saphenous vein. Palpation detects an oblong painful induration 3x2 cm in size in the upper third of the lower leg. What complication of varicose veins has developed in the patient?

- a. Lymphadenitis

**b. Thrombophlebitis**

- c. Deep vein thrombosis
- d. Lymphangitis
- e. Furuncle

85. A 30-year-old man came to the family physician. 2 months ago he underwent a surgery for open fracture of the humerus. On examination the patient's condition is satisfactory; in the area of the



postoperative wound there is a fistula that discharges a small amount of pus; the area itself is red; fluctuation is detected. X-ray shows destruction of the humerus with sequestra. What complication did the patient develop during the postoperative period?

- a. Hematogenous osteomyelitis
- b. Suture sinus
- c. Posttraumatic osteomyelitis
- d. Wound supuration
- e. Posttraumatic phlegmon

86. An 18-year-old young woman complains of pain in her lower abdomen, an increase in her body temperature to  $37.5^{\circ}\text{C}$ , and purulent discharge from the genital tracts. Gynecological examination detects the following: the urethra is infiltrated, the cervix is hyperemic and edematous, the discharge is profuse and purulent, the uterus is of normal size and painful to palpation, the appendages on both sides are corded and painful. Bacterioscopy of secretions detected Gram-negative diplococci intracellularly. What disease is observed in the patient?

- a. Acute ascending gonorrhea
- b. Subacute ascending gonorrhea
- c. Bacterial vaginosis
- d. Chronic gonorrhea
- e. Trichomonas colpitis

87. A 40-year-old woman has been suffering from epilepsy since she was 15. Generalized epileptic seizures occur 2-3 times a month at night and are accompanied by involuntary urination and defecation. After a psychotrauma (her father's death), the attacks became more frequent and now occur every 2-3 minutes. The woman does not return to consciousness between the attacks, her pupils are unresponsive to light. What is the most likely diagnosis in this case?

- a. Hysterical attack
- b. Absence seizure
- c. Epileptic psychosis
- d. An increase in the number of grand mal seizures
- e. Status epilepticus

88. A 55-year-old woman complains of pain and popping sounds in her left knee joint, which occur when she climbs the stairs. Occasionally during movements her joint becomes "locked". 5 years ago she suffered a trauma of her left knee. Complete blood count and biochemical blood analysis show normal results. X-ray shows marked osteosclerosis and osteophytes. The joint space is narrowed. Make the provisional diagnosis:

- a. Osteoarthritis
- b. Psoriatic arthritis
- c. Reactive arthritis
- d. Rheumatoid arthritis
- e. Gouty arthritis

89. A 45-year-old woman was hospitalized with complaints of periodical severe headaches against the background of elevated blood pressure up to 180/90 mm Hg, muscle weakness, and frequent urination (at night as well). Her anamnesis states that despite combining various antihypertensive drugs and adjusting their dosage her arterial hypertension cannot be corrected with drugs. The patient's blood serum potassium levels are 2.0 mmol/L, blood serum sodium levels are 160.0 mmol/L. Ultrasound imaging detects three-dimensional formations approximately 1.0 cm in diameter in the both adrenal glands. Selective endovascular blood sampling from the suprarenal veins was performed, which revealed significant increase of cortisol and aldosterone levels. Make the diagnosis:

- a. Pheochromocytoma
- b. Cushing's syndrome
- c. Cushing's disease
- d. Androsteroma
- e. Aldosteroma

90. For the last 15 years a 48-year-old patient has been working at the factory producing synthetic

resins. Lately he has been complaining of significant general fatigue, headaches, frequent urination (predominantly during the day), red color of urine. What complication of benzene nitrocompounds poisoning can be suspected?

- a. Chronic prostatitis
- b. Acute glomerulonephritis
- c. Malignant tumor of the urinary bladder**
- d. Chronic cystitis
- e. Chronic pyelonephritis

91. A 16-year-old teenager has been bitten by a dog. The bites are located in the area of face and fingertips. The dog is a stray and cannot be observed. Primary surgical treatment of the wound was performed without removal of the wound edges. What tactics should be chosen by a doctor for rabies prevention?

- a. Prescribe anti-rabies immunoglobulin and anti-rabies vaccine**
- b. Prescribe human immunoglobulin and ribavirin
- c. Prescribe anti-rabies vaccine and human immunoglobulin
- d. Prescribe anti-rabies vaccine and ribavirin
- e. Prescribe anti-rabies immunoglobulin and ribavirin

92. A man complains of unbearable cough with putrid-smelling chocolate-colored purulent sputum. The discharge of sputum reaches 600 mL per 24 hours. The patient's history states that the disease onset was acute, with irregular fever and the body temperature reaching  $39^{\circ}\text{C}$ . X-ray shows a shadowed area with a cavity in its center that has irregular contours and a fluid level. What is the most likely diagnosis in this case?

- a. Lung abscess
- b. Pulmonary gangrene**
- c. Bronchiectasis
- d. Cavernous tuberculosis
- e. Lung cancer with disintegration

93. A 35-year-old man complains of rapidly increasing fatigue, palpitations, "visual snow", dizziness. He has a history of peptic ulcer of the stomach. Objectively the skin is pale. Vesicular respiration is observed in the lungs. Systolic murmur is detected over the cardiac apex, heart rate is 100/min., BP is 100/70 mm Hg. The epigastrium is slightly tender on palpation. Blood test: erythrocytes -  $3.2 \cdot 10^{12}/\text{L}$ , Hb - 100 g/L, color index - 0.94. What type of anemia is it?

- a. Hemolytic anemia
- b. Sideroblastic anemia
- c. Hypoplastic anemia
- d. Posthemorrhagic anemia**
- e. Chronic iron-deficiency anemia

94. Among the population living near a pesticide production factory, the number of congenital malformations that manifest as central paralysis, idiocy, and blindness of newborns is dynamically increasing. Compounds of what chemical substance can cause the development of these pathologies?

- a. Mercury**
- b. Strontium
- c. Chrome
- d. Iron
- e. Cadmium

95. The region at the Carpathian foothills is characterized by constant high atmospheric humidity (over 80%). In the cold season, while the air temperature is moderately low, the population of this region feels extreme cold. What type of heat transfer increases in such conditions?

- a. Radiation
- b. -
- c. Evaporation
- d. Convection**
- e. Conduction

96. A 38-year-old woman has been suffering from glomerulonephritis for 20 years. For approximately 16 years she has been presenting with progressing renal parenchymal arterial hypertension that became refractory and accompanied by leg edemas. She receives a combination of 100 mg losartan and 20 mg lercanidipine with insufficient antihypertensive effect. What medicine can she be recommended for intensification of the antihypertensive effect of her therapy?

- a. Doxazosin
- b. Lisinopril
- c. Torasemide**
- d. Urapidil
- e. Bisoprolol

97. Having studied the relationship between the distance from villages to the local outpatient clinics and frequency of visits to the clinics among the rural population of this area, it was determined that the rank correlation coefficient in this case equals -0.9. How can this relationship be characterized?

- a. -
- b. Strong inverse relationship**
- c. Strong direct relationship
- d. Moderate inverse relationship
- e. Moderate direct relationship

98. A 36-year-old woman complains of nausea, belching, liquid stool, and a pain in the epigastrium after meals. For the last 2 years the disease has been slowly progressing. Objectively, her skin is pale and dry, her tongue is coated, moist, and has imprints of the teeth on its edges. Abdominal palpation detects a diffuse pain in the epigastrium. What test will be the most informative in this case and should be conducted next?

- a. Abdominal CT scan
- b. Gastrointestinal X-ray
- c. Fibrogastroscopy with biopsy of the gastric mucosa**
- d. Comprehensive complete blood count
- e. Fractional analysis of gastric secretion

99. A 39-year-old man undergoes treatment in the surgical department for acute cholecystitis. He was transferred to the therapy department due to an increase in blood pressure to 180/120 mm Hg, protein excretion with urine, and persistent fever. This persistent subfebrile body temperature was resistant to antibiotic therapy. 10 days after the treatment, the patient had an asphyxia attack with difficult expiration. Later, he developed arthralgias and erythematous skin lesions. Eosinophil levels in the blood are 18%. What disease can be suspected in this patient?

- a. Polyarteritis nodosa**
- b. Acute glomerulonephritis
- c. Nonspecific aortoarteritis
- d. Systemic lupus erythematosus
- e. Hemorrhagic vasculitis (Henoch-Schoenlein purpura)

100. On ultrasound of the thyroid gland, a 47-year-old woman presents with a hypoechoic node 1.6 cm in diameter with blurred margins and intranodular hypervascularization. The doctor suspects thyroid carcinoma. What method should be used to verify the diagnosis?

- a. Positron emission tomography (PET)
- b. Case monitoring
- c. Fine-needle aspiration biopsy**
- d. Determine TSH level in the blood
- e. Thyroid scintigraphy

101. A 25-year-old woman complains of a 2-month-long menstruation delay and bloody vaginal discharge. Gynecological examination detects that the cervix is "barrel-shaped", the uterus is in emphanteflexio, the body of the uterus is small and painless, the external os allows inserting a fingertip, the appendages are not palpable, the discharge is profuse and hemorrhagic. What is the most likely diagnosis in this case?

- a. Cervical erosion**

- b. Cervical cancer
- c. Hydatidiform mole
- d. Cervical pregnancy**
- e. Endometriosis

102. A 28-year-old woman complains of pain in her lower abdomen, more on the right, that intensifies during a menstruation. Smearing bloody discharge is observed before and after a menstruation. The woman has a 10-year-long history of infertility. Bimanual examination reveals that the uterus is dense, painless, and not enlarged. To the right of the uterus, a mass 7x8x6 cm in size with slightly limited mobility is palpable. The vaginal fornices are free, the discharge is mucous. What is the most likely diagnosis in this case?

- a. Right-sided adnexitis
- b. Cancer of the right ovary
- c. Tumor of the ascending colon
- d. Endometrioid ovarian cyst on the right**
- e. Uterine endometriosis

103. During preventive ultrasound scan of abdomen performed during regular check-up in a school the following was revealed in an 11-year-old student of the 5th grade: the left kidney is 3 cm below the normal position, its shape, size and structure are within the norm, the contralateral kidney cannot be observed at its proper place. The preliminary diagnosis is as follows: congenital anomaly of renal development, dystopic left kidney, right kidney is absent or pelvic dystopic. What X-ray method would be required for making the final diagnosis and determining the functional capacity of both kidneys?

- a. Radionuclide renography
- b. Thermography
- c. Excretory urography
- d. Renal dynamic scintigraphy**
- e. Radioimmunoassay

104. A woman complains of a persistent increase in her blood pressure to 160-180/95-100 mm Hg and weight gain of 8 kg. Examination detects a purple-cyanotic tint of the skin of her face and back and emphysematous rubrae on the skin of her abdomen. Laboratory blood test: glucose - 8.3 mmol/L, leukocytes -  $9.1 \cdot 10^9/L$ . Make the provisional diagnosis.

- a. Cushing disease**
- b. Pheochromocytoma
- c. Secondary arterial hypertension
- d. Conn syndrome
- e. Essential hypertension

105. In a 5-year-old child, the disease onset was acute, with the child developing a fever of 39.2°C, headache, vomiting, and delirium. On the second day after the onset of the disease, the child developed generalized tonic-clonic seizures, confusion, and hemiparesis. Polymerase chain reaction of the cerebrospinal fluid detects HSV-1 DNA. What etiotropic drug should be prescribed in this case?

- a. Acyclovir**
- b. Oseltamivir
- c. Ceftriaxone
- d. Rimantadine
- e. Interferon

106. For the last 2 years, a 32-year-old woman has been observing periodical pain attacks in her right subcostal area that could be removed with no-spa (drotaverine). The pain is not always associated with meals, sometimes it is caused by anxiety and accompanied by cardiac pain and palpitations. Objectively, the woman is emotionally labile. Abdominal palpation detects a slight pain in the area of the gallbladder. What pathology is the most likely to cause such clinical presentation?

- a. Chronic cholecystitis
- b. Biliary dyskinesia**
- c. Chronic cholangitis
- d. Duodenitis

e. Chronic pancreatitis

107. An 8-year-old girl gains no weight and has a distended abdomen and diarrhea that occurs up to 4-5 times per 24 hours. According to the patient's medical history, the symptoms first appeared at the age of 6 months, after the introduction of complementary food - oatmeal - into her diet. Since then, the child has been experiencing abdominal bloating, diarrhea, and loose stools after eating cereals and products containing flour. Coprology test detects steatorrhea. Fibrogastroduodenoscopy detects subatrophic duodenitis. What is the most likely diagnosis in this case?

- a. Pancreatitis
- b. Functional dyspepsia
- c. Mucoviscidosis
- d. Celiac disease**
- e. Lactase deficiency

108. The overall condition of a 24-year-old man, who was being treated for meningococemia, took a turn for the worse. Objectively, he has acrocyanosis, anuria, his limbs are cold, his respiration is 30/min., heart rate is 140/min., blood pressure is 40/0 mm Hg. What emergency medical condition did the patient develop?

- a. Hemolytic-uremic syndrome
- b. Pulmonary artery thrombosis
- c. Hypovolemic shock
- d. Anaphylactic shock
- e. Septic shock**

109. What device is used to measure the level of natural light?

- a. Actinometer
- b. Catathermometer
- c. Luxmeter**
- d. Hygrometer
- e. Anemometer

110. A 45-year-old woman complains of an induration in her left breast. Objectively, in the upper-outer quadrant of her left mammary gland, she has a tumor-like formation approximately 2.5 cm in diameter without clear contours. The formation is mobile and painless. The "lemon rind" sign is positive. In the left axillary region, there is a lymph node enlarged to 1.5 cm. What is the most likely diagnosis in this case?

- a. Breast cancer**
- b. Breast abscess
- c. Non-lactational mastitis
- d. Breast fibroadenoma
- e. Lipogranuloma

111. A 13-year-old girl for the last two weeks has been complaining of dyspnea and shin and foot edemas that appear after a physical exertion. In the morning the edemas significantly decrease. Clinical examination revealed enlarged liver and coarse systolic murmur over the heart area. Blood test and urinalysis are without changes. What is the most likely cause of edemas in this child?

- a. Nephrotic syndrome
- b. Angioneurotic edema
- c. Heart failure**
- d. Acute pyelonephritis
- e. Hepatic cirrhosis

112. A 55-year-old woman came to a doctor with complaints of a heavy sensation in her left shin and periodical cramps of the gastrocnemius muscles that occur at night. She has been suffering from this condition for 5 years, since the moment when these signs first appeared. Her condition has been remaining untreated all this time. Objectively, on the medial surface of the left shin and thigh there are dense subcutaneous varicose veins that are painless on palpation. Make the diagnosis:

- a. Arteriosclerosis obliterans of the vessels in the left leg

b. Acute ascending thrombophlebitis of the subcutaneous veins in the left leg

**c. Subcutaneous varicose veins in the left leg**

d. Acute thrombosis of the deep veins in the left leg

e. Post-thrombotic syndrome in the left leg

113. A 28-year-old man complains of nocturnal arthralgias and myalgias and lumbar pain that intensifies during trunk flexion and extension. Examination detects increased ESR and C-reactive protein levels. X-ray shows bilateral sacroiliitis. Make the provisional diagnosis.

a. Bone tuberculosis

b. Osteochondrosis

**c. Ankylosing spondylitis**

d. Rheumatism

e. Polymyositis

114. A 35-year-old man was hospitalized with signs of surgical sepsis that has likely been caused by a large carbuncle in his scapular region. Examination detected secondary purulent foci in the liver and right lung. What stage of surgical sepsis is it?

**a. Septicopyemia**

b. Toxemia

c. Septicemia

d. Purulent resorptive fever

e. Terminal stage

115. A patient is being treated in the tuberculosis clinic. Throughout the last 3 weeks he has been suffering from headaches of increasing intensity. Neurological examination detects nuchal rigidity without focal signs. Make the provisional diagnosis:

a. Chorea minor

b. Myelitis

**c. Tuberculous meningitis**

d. Convexital arachnoiditis

e. Brain tumor

116. A 32-year-old patient has been hospitalized into the surgical department with clinical signs of hemorrhagic shock two hours after receiving a closed abdominal injury. During the surgery, a rupture of the spleen was diagnosed, the patient has up to 1.5 liters of liquid blood in the abdominal cavity. No damage to the hollow organs was detected. What type of transfusion must be provided in this case?

a. Exchange blood transfusion

b. Direct blood transfusion

c. Transfusion is not indicated

d. Indirect blood transfusion

**e. Reinfusion**

117. A man suffers from urolithiasis and periodically develops hyperoxaluria. What products should be reduced in his diet?

a. Meat, fish

b. Fatty foods

c. Canned soup

d. Dairy products

**e. Sorrel, spinach, tomatoes**

118. A 67-year-old woman complains of weakness in her arms, heaviness in her legs, and twitching in the muscles of her limbs. According to the patient's medical history, the disease onset was approximately 10 months ago, when she first developed weakness in her arms. Objectively, marked hypotrophy is observed in the arm muscles, as well as diffuse muscle fasciculations in the limbs, mainly in the arms. A muscle strength decrease that reaches 2 points is observed in the arms, while in the legs the muscle strength is preserved. Deep reflexes are significantly overactive in the limbs. Foot clonus is observed on both sides. Babinski's pathological reflex is observed on both sides. There

were no sensory or coordination disorders detected, as well as no pelvic organ dysfunction. What is the most likely diagnosis in this case?

- a. Amyotrophic lateral sclerosis
- b. Myasthenia
- c. Spinal muscular atrophy
- d. Tuberculous meningitis
- e. Syphilitic meningoencephalitis

119. A 38-year-old woman complains of throbbing pain in the area of her external genitalia on the right, chills, and a fever of 38.5°C. Objectively, palpation detects a painful tumor-like formation covering the entrance to the vagina in the area of the lower third of the labia majora on the right. Marked edema and hyperemia are observed. What is the most likely diagnosis in this case?

- a. Acute Bartholinitis
- b. Bartholin gland cyst
- c. Acute vaginitis
- d. Acute vulvitis
- e. Fibroma of the vulva

120. A 28-year-old man after lifting a weight felt an intense lumbar pain that irradiated to the right leg. He made an appointment with a doctor. After examination, the doctor diagnosed him with acute discogenic lumbosacral radiculitis. What additional examination is necessary to confirm this diagnosis?

- a. Lumbar MRI
- b. Urinalysis
- c. Kidney X-ray
- d. Electromyography of the leg muscles
- e. Lumbar puncture

121. A 35-year-old woman complains of a pain in her right axillary region. She has been suffering from this condition for a week. Her body temperature is 38°C. In the right axillary region there are 2 formations, 2 cm in size each. The skin over the formations is dark red and thin. Palpation produces a yellow-white discharge from the fistular openings. What is the most likely diagnosis?

- a. Carbuncle
- b. Furuncle
- c. Folliculitis
- d. Lymphadenitis

e. Hydradenitis

122. A 27-year-old woman has been treated in a surgical department for pleural empyema for 6 months. Multiple paracenteses of the pleural cavity were performed along with antibacterial treatment. The patient's condition is slowly aggravating; attempts to fully stretch the lung were unsuccessful. Choose the tactics:

- a. Set constant active suction drain
- b. Pneumonectomy
- c. Decortication of the lung
- d. Change antibiotics
- e. Include hyperbaric oxygenation in the treatment

123. An 11-year-old boy complains of frequent nosebleeds and fatigue during walking. Objectively, a lag is observed in the physical development of the lower half of the body. Blood pressure in the arms is increased, while blood pressure in the legs is decreased. The borders of the heart are expanded on the left. A systolic noise is observed in the interscapular region. ECG shows that the axis of the heart is horizontal. Chest X-ray reveals left-sided cardiomegaly and erosions (usurations) of the ribs. What is the most likely diagnosis in this case?

- a. Atrial septal defect
- b. Coarctation of the aorta
- c. Patent ductus arteriosus
- d. Aortic stenosis



e. Ventricular septal defect

124. A 60-year-old man complains of mild disturbances of memory, coordination, gait. Cerebral atherosclerosis was confirmed. Blood pressure is within the norm. Magnetic resonance imaging shows leukoaraiosis in the periventricular area. What is the most likely diagnosis?

a. Alzheimer's disease

**b. Hypoxic-ischemic encephalopathy**

c. Lacunar cerebral stroke

d. Binswanger's disease (subcortical arteriosclerotic encephalopathy)

e. Transient ischemic attacks

125. A 36-year-old woman complains of a headache, paresthesia, muscle weakness, spasms, thirst, and polyuria. Objectively, her temperature is  $36.6^{\circ}\text{C}$ , respiration rate - 18/min., pulse - 92/min., blood pressure - 180/110 mm Hg. Her ECG shows ST depression. Her potassium levels in blood plasma are low, sodium levels are high, plasma renin activity is significantly decreased, aldosterone concentration is high. 24-hour urine specific gravity does not exceed 1.008-1.011, alkaline reaction is observed. Spironolactone test is positive. CT scan shows enlarged right adrenal gland. What is the most likely diagnosis in this case?

a. Androsteroma

b. Diabetes insipidus

c. Cushing's syndrome

d. Pheochromocytoma

**e. Conn's syndrome**

126. After playing with "mosaics", a 2-year-old child suddenly developed cough, stridorous respirations, urges to vomit, and cyanosis against the background of relative somatic health. What should the doctor suspect first when examining this child?

a. Pertussis

b. Pneumonia

**c. Foreign body aspiration**

d. Acute obstructive bronchitis

e. Acute laryngotracheitis

127. A child was born from the first pregnancy at the gestational age of 38 weeks via caesarean section with the weight of 3500 g. The Apgar score is 8-10 points. What procedure must be carried out for this baby during the first hours of life to prevent hemorrhagic disease of the newborn?

**a. Intramuscular administration of 1 mg of vitamin K**

b. Oral administration of vitamin D

c. Oral administration of vitamin C

d. Vaccination

e. Instillation of erythromycin ointment into the conjunctival sac

128. An 11-year-old child has been immunized according to the age and calendar schedule. What vaccination must be received by the child at this age?

a. Against pertussis

b. Against viral hepatitis B

**c. Against diphtheria and tetanus**

d. Against tuberculosis

e. Against poliomyelitis

129. A 20-year-old woman has been hospitalized with complaints of a fever of  $38.5^{\circ}\text{C}$ , excessive sweating, pain in her lumbar region and abdomen on the right, headache, and general weakness. Objectively, the sign of costovertebral angle tenderness is positive on the right (Pasternatski's sign). Complete blood count: hemoglobin - 115 g/L, erythrocytes -  $3.9 \cdot 10^{12}/\text{L}$ , leukocytes -  $15.2 \cdot 10^9/\text{L}$ , ESR - 28 mm/hour. General urinalysis: urine color - light yellow, specific gravity - 1018, protein - 0.42 g/L, leukocytes - 15-20 in sight, cylinders (casts) - 3-5 in sight, bacteria - "+ +". What is the most likely provisional diagnosis in this case?

a. Acute adnexitis

- b. Acute cholecystitis
- c. Acute pyelonephritis**
- d. Acute appendicitis
- e. Acute pancreatitis

130. For the last 2 years, a 51-year-old woman has been experiencing a dull pain with periodical exacerbations in her right subcostal region. The pain is associated with eating fatty foods. The woman complains of bitterness in her mouth in the morning, constipations, and flatulence. Objectively, she is overeating,  $t^{\circ} = 36.9^{\circ}\text{C}$ , the tongue is coated near its root, the abdomen is moderately distended and painful at the point of gallbladder projection. What study would be the most useful for making a diagnosis?

- a. Cholecystography
- b. Duodenal sounding
- c. Liver scan
- d. Duodenoscopy
- e. Abdominal ultrasound**

131. A 60-year-old patient has been hospitalized in an unconscious state. According to the patient's medical history, he has diabetes mellitus and arterial hypertension and takes insulin and hypotensive drugs. Objectively, the patient's condition is severe, the skin is dry, the turgor is reduced, the tongue is dry and has a brown coating, the tone of the muscles and eyeballs is reduced. Body temperature -  $38.2^{\circ}\text{C}$ . Pulse - 108/min, of poor volume. Auscultation detects muffled heart sounds. Blood pressure - 90/50 mm Hg, the breathing is rapid and shallow. There is no smell of acetone. Blood test: glucose - 58 mmol/L, total protein - 105 g/L, urea - 16 mmol/L, sodium - 238 mmol/L, potassium - 5.5 mmol/L, lactic acid - 0.8 mmol/L. Urinalysis: glucose - 15 mmol/L, no ketone bodies. What type of coma has most likely occurred in the patient?

- a. Hyperosmolar coma**
- b. Hepatic coma
- c. Ketoacidotic coma
- d. Uremic coma
- e. Lactic acid coma

132. A 38-year-old woman after physical overexertion suddenly developed palpitations, dyspnea, and a dull pain in the cardiac area. For 10 years she has been registered for regular check-ups due to rheumatism and mitral valve disease with non-disturbed blood circulation. Objectively her pulse is 96/min., of unequal strength. Blood pressure is 110/70 mm Hg, heart rate is 120/min. ECG registers small unevenly-sized waves in place of P-waves, R-R intervals are of unequal length. What is the most likely diagnosis?

- a. Respiratory arrhythmia
- b. Atrial fibrillation**
- c. Paroxysmal supraventricular tachycardia
- d. Atrial flutter
- e. Paroxysmal ventricular tachycardia

133. A multigravida, labor II, 36-37 weeks of gestation, has gone into labor. Her waters broke 8 hours ago, the labor activity continues for the last 4 hours, it is regular, with contractions that last 35 seconds and occur every 3-4 minutes. The child is in the cephalic presentation, with the head pressed to the entrance into the lesser pelvis. The parturient woman complains of a sudden sharp abdominal pain. Her pulse is 100/min., blood pressure is 110/70 - 100/70 mm Hg. The uterus is tense and does not relax between the contractions. Fetal heartbeat is muffled - 100/min. The amniotic fluid is blood-colored and continues to leak. What is the most likely diagnosis?

- a. Uterine rupture
- b. Premature detachment of the normally positioned placenta**
- c. Rupture of the umbilical vessels
- d. Cervical rupture
- e. Partial placenta previa

134. A 32-year-old woman addressed a maternity clinic with complaints of infertility that has been

lasting for 7 years. Her menstrual cycle occurs in two phases. Hysterosalpingography reveals obstruction of the uterine tubes in the ampullar areas, an adhesive process in the small pelvis can be observed. What treatment is most advisable in this case?

- a. Hydrotubation
- b. Tubectomy
- c. Laparoscopy**
- d. Laparotomy
- e. Adnexectomy

135. A 25-year-old pregnant woman was hospitalized into the inpatient department based on the referral from the maternity clinic. She has a history of two spontaneous miscarriages. Examination detects pregnancy with the gestational age of 14-15 weeks. Vaginally, the cervix is shortened, its outer orifice allows inserting a fingertip. The patient was diagnosed with isthmus cervical insufficiency. What would be the doctor's tactics in this case?

- a. Provide hormonal treatment
- b. Place a circular stitch on the cervix (cervical cerclage)**
- c. Administer uterotonics, not waiting for a spontaneous abortion to occur
- d. Prescribe bed rest and sedatives
- e. Perform amniocentesis and terminate the pregnancy

136. A 59-year-old woman complains of pain and edema in the small joints of her hands, shortness of breath, weakness. This condition lasts for 8 years already. Objectively, her body temperature is  $37.8^{\circ}\text{C}$ , she has fine punctate hemorrhages on her torso and limbs, ulnar deviation of the hands is observed. The borders of the heart are shifted to the left, a systolic murmur can be detected over the apex. Her pulse is 96/min. Her blood pressure is 170/100 mm Hg. Complete blood count shows the following: erythrocytes -  $3.2 \cdot 10^{12}/\text{L}$ , Hb - 108 g/L, leukocytes -  $6.8 \cdot 10^9/\text{L}$ , platelets -  $220 \cdot 10^9/\text{L}$ , ESR - 48 mm/hour, C-reactive protein (+++). General urinalysis shows the following: specific gravity - 1016, protein - 2.8 g/L, leukocytes - 10-12 in the vision field, erythrocytes - 2-4 in the vision field. What is the most likely diagnosis in this case?

- a. Thrombocytopenic purpura
- b. Rheumatism
- c. Rheumatoid arthritis**
- d. Chronic glomerulonephritis
- e. Systemic lupus erythematosus

137. A regional cardiologist is tasked with the development of a plan for medioprophylactic measures aimed at decrease of cardiovascular mortality. What measures should be planned for secondary prevention?

- a. Referring patients for in-patient treatment
- b. Prevention of recurrences and complications**
- c. Prevention of diseases
- d. Optimization of life style and living conditions
- e. Referring patients for sanatorium-and-spa treatment

138. A 50-year-old man was hospitalized with complaints of blood in the urine. There are no pain or urination disorders. Hematuria is observed for the last 3 days. Objectively, the kidneys are not palpable, the suprapubic area is normal, the external genitalia have no pathology. Rectal examination detects no prostatic enlargement. Cystoscopy detects no changes. What disease can be suspected first?

- a. Necrotizing papillitis
- b. Renal dystopia
- c. Varicocele
- d. Tuberculosis of the urinary bladder
- e. Kidney cancer**

139. A 2-year-old girl has a medical history of recurrent obstructive pneumonia. In the lungs various moist and dry crackles can be auscultated, breath sounds are diminished. Sputum is thick, viscous and difficult to expectorate. Drumstick fingers and physical developmental retardation are observed.

What preliminary diagnosis can be made?

- a. Pulmonary tuberculosis
- b. Pulmonary mucoviscidosis**
- c. Congenital polycystic lungs
- d. Recurrent bronchitis
- e. Bronchial asthma

140. In 10 hours after eating canned mushrooms a 27-year-old patient has developed diplopia, bilateral ptosis, disrupted swallowing, shallow breathing with respiratory rate 40/min., muscle weakness, enteroparesis. What measure should be taken first?

- a. Intubation of the trachea for artificial respiration**
- b. Gastrointestinal lavage
- c. Introduction of antitubulinic serum
- d. Intravenous detoxication therapy
- e. Introduction of glucocorticosteroids

141. A 72-year-old woman has been hospitalized with a nosebleed. Within the last 6 years, her blood pressure had spikes up to 180/100 mm Hg. Objectively, her skin is pale, the heart sounds are quite sonorous, the second heart sound is accentuated over the aorta, there is an audible systolic murmur. Blood pressure - 150/80 mm Hg. In the blood: Hb - 92 g/L, erythrocytes -  $2.7 \cdot 10^{12}/L$ . In the urine: specific gravity - 1022, leukocytes - 3-7 in the vision field, erythrocytes - 0-2 in the vision field. What is the most likely cause of hypertension in this case?

- a. Chronic glomerulonephritis
- b. Aortic atherosclerosis**
- c. Chronic pyelonephritis
- d. Coarctation of the aorta
- e. Essential hypertension

142. Annual report of an in-patient ward presents data about the number of patient days and the number of patients, who have undergone treatment within a year. What work indicator of the in-patient ward can be calculated based on these data?

- a. Mortality
- b. Hospital bed turnover rate
- c. Bed occupancy rate
- d. Average duration of in-patient treatment of a patient**
- e. Efficient use of the hospital bed capacity

143. A 34-year-old man undergoes treatment in a psychiatry unit for exacerbation of his schizophrenia. Objectively, he stays in bed, his movements are inhibited, no contact. The patient does not respond to the questions. The position remains unchanged, the patient is hypomimic, such signs as puckering of the lips, waxy flexibility, "psychological pillow" are present. The patient has been remaining in this condition for a week. He is being fed parenterally. What psychomotor disorder is it?

- a. Depressive stupor
- b. Exogenous stupor
- c. Anergic stupor
- d. Psychogenic stupor
- e. Catatonic stupor**

144. A 10-year-old boy complains of weakness, sore throat, difficult nasal breathing, and a fever of 39°C. According to the patient's medical history, it is day 4 after the onset of the disease. Objectively, the following is observed: skin pallor, edema of the face and eyelids, significantly enlarged posterior cervical lymph nodes and, to a lesser extent, submandibular, axillary, and inguinal lymph nodes. The oropharyngeal mucosa is hyperemic. The tonsils are hypertrophied and covered with a continuous plaque that can be easily removed with a spatula. Hepatosplenomegaly is observed. What is the most likely diagnosis in this case?

- a. Viral hepatitis A
- b. Scarlet fever
- c. Infectious mononucleosis**

- d. Lymphogranulomatosis
- e. Diphtheria

145. A 40-year-old man with Bekhterev disease (ankylosing spondylitis) complains of elevated body temperature up to  $37.8^{\circ}\text{C}$ , back pain and stiffness, especially observed during the second half of the night. This condition has been lasting for 2 years. Objectively: reduced spinal mobility, painful sacroiliac joint, erythrocyte sedimentation rate - 45 mm/hour. X-ray shows narrowing of the intervertebral disc space and of the sacroiliac joint. What eye pathology is often associated with this type of disease progression?

- a. Retinal detachment
- b. Blepharitis
- c. Cataract
- d. Optic nerve atrophy
- e. Iridocyclitis**

146. A 13-year-old girl has 30% of excessive body mass, she started to gain weight at the age of 3. She has a family history of obesity. Her height and sexual development are normal for her age. The appetite is excessive. She complains of periodical headaches. Blood pressure - 120/80 mm Hg. Subcutaneous fat is evenly distributed, she has no stretch marks. There is juvenile acne on her face. What type of obesity is it?

- a. Adrenal obesity
- b. Hypothalamic syndrome of puberty
- c. Hypothalamic obesity
- d. Hypothyroid obesity
- e. Alimentary constitutive obesity**

147. A 43-year-old man, a coal-face worker with 15-year-long record of work, complains of cough, thoracic pain, and dyspnea. The cough is mild, usually dry, occurs mostly in the morning. The pain is localized in the interscapular region and aggravates during a deep intake of breath. Dyspnea occurs during physical exertion. Vesicular respiration in the lungs is weakened. Heart sounds are rhythmic, heart rate is 86/min., blood pressure is 135/80 mm Hg. The abdomen is soft and painless. X-ray shows micronodular pulmonary fibrosis. Make the provisional diagnosis:

- a. Siderosis
- b. Berylliosis
- c. Carboconiosis**
- d. Byssinosis
- e. Metal pneumoconiosis

148. A 30-year-old woman came to a doctor with complaints of menstruations that have been missing for two years after her second childbirth. The childbirth was complicated by a massive bleeding. After giving birth, the woman started noticing hair loss and weight loss. Objectively, the woman's body type is asthenic, her external genitalia are hypoplastic, the cervix is cylindrical, the body of the uterus is small and painless, the uterine appendages cannot be detected. What is the most likely diagnosis in this case?

- a. Uterine pregnancy
- b. Stein-Leventhal syndrome
- c. Pituitary tumor (Cushing disease)
- d. Primary amenorrhea
- e. Pituitary amenorrhea (Sheehan syndrome)**

149. The inpatient care provided to the population of a certain district is being analyzed. What indicator should be used when deciding, whether to reduce the number of the available hospital beds?

- a. Average duration of inpatient stay
- b. Bed turnover
- c. Average duration of treatment
- d. Mortality rate
- e. Average annual bed occupancy**

150. An 8-year-old girl after a case of acute respiratory infection has been complaining for the last 2 weeks of a pain in the area of her heart and palpitations. Objectively, her body temperature is febrile, her skin is pale, the heart borders are extended to the left, heart rate is 142/min. The girl presents with paired atrial extrasystoles, dull heart sounds, and a low intensity systolic murmur that reaches its maximum at point 5. Make the provisional diagnosis:

- a. Functional changes in the heart
- b. Congenital heart disease
- c. Endocarditis
- d. Somatoform vegetative dysfunction

e. Myocarditis

151. A 14-year-old girl has chronic glomerulonephritis and chronic kidney failure. The girl's anemic syndrome continues to progress. What drug should be prescribed for the pathogenetic therapy of this type of anemia?

- a. Packed erythrocytes
- b. Erythropoietin
- c. Cyanocobalamin
- d. Folic acid
- e. Iron supplements

152. A 55-year-old woman complains of deformed finger joints and pain in them during movements. Objectively, there are small bony formations on the lateral surfaces of the distal interphalangeal joints. The formations are slightly painful to palpation. What are they called?

- a. Heberden's nodes
- b. Erythema nodosum
- c. Rheumatoid nodules
- d. Bouchard's nodes
- e. Tophi

153. Examination of the corpse of a man, who died by hanging, reveals that the spots of livor mortis disappear when pressed and reappear 50 seconds later. The rigor mortis is moderate and observed only in the masticatory muscles and muscles of neck and fingers. The body temperature is  $31.0^{\circ}\text{C}$ . What is the time of death in this case?

- a. 6-7 hours
- b. 1-2 hours
- c. 10-18 hours
- d. 8-10 hours
- e. 16-24 hours

154. A 2-month-old child has seizures and recurrent viral and bacterial infections of the upper respiratory tracts. A deformed skull and hypoplasia of the thymus and parathyroid glands were detected in the child. Immunological laboratory studies revealed lymphocytopenia, normal levels of immunoglobulins, and decreased levels of T lymphocytes with their proliferative response reduced. What is the most likely diagnosis in this case?

- a. Primary immunodeficiency, Bruton disease
- b. Primary immunodeficiency, DiGeorge syndrome
- c. -
- d. Common variable immunodeficiency
- e. Primary immunodeficiency, Chediak-Higashi syndrome

155. A 40-year-old man complains of impaired vision, rapid heartbeat, and an aching pain in the muscles of his back, lumbar region, and legs and in his shoulder and hip joints. Objectively, the signs of uveitis can be observed. X-ray detects blurring of the contours of the sacroiliac joints and single syndesmophytes between the vertebral bodies. Laboratory testing detects antibodies against HLA-B27 antigens, anemia, and ESR of 28 mm/hour. What disease causes such a clinical presentation?

- a. Deforming spondyloarthritis
- b. Rheumatoid arthritis

- c. Systemic lupus erythematosus
- d. Ankylosing spondylitis
- e. Reiter's syndrome

156. A child has suddenly developed a respiratory arrest, cyanotic skin, and pinpoint pupils; there is no pulse on the great blood vessels. What measures must be taken first in this case?

- a. Oxygen therapy
- b. Artificial pulmonary ventilation, closed-chest cardiac massage
- c. Intracardiac injection of adrenaline
- d. Gastric lavage
- e. Intravenous injection of euphyllin (aminophylline)

157. A 72-year-old man has been brought into a vascular surgery department with complaints of pain and chills in his legs. Ultrasound of his leg arteries shows atherosclerotic lesions of the vascular wall. What diagnostic method is necessary to determine the localization and the extent of the pathologic process in this case?

- a. Chest X-ray
- b. Angiography
- c. ECG
- d. Thermometry
- e. X-ray of the extremities

158. During agricultural work in the field, a tractor driver received an open trauma of the hand. The tractor driver has never completed the full course of planned anti-tetanus immunization. What should he be given for urgent specific prevention of tetanus in this case?

- a. 1.0 mL of tetanus anatoxin, 50000 IU of anti-tetanus serum
- b. No prevention is necessary
- c. 1.0 mL of tetanus anatoxin, 3000 IU of anti-tetanus serum
- d. 3000 IU of anti-tetanus serum
- e. 0.5 mL of tetanus anatoxin, 3000 IU of anti-tetanus serum

159. A 5-day-old girl from the first pregnancy was born with the weight of 3100 g and the length of 51 cm. Her Apgar score was 8/9. On the 3rd day she developed icteric skin. On the 4th day of life her condition is satisfactory, she suckles well, her voice is loud. The umbilical wound is clean. In the lungs there is a puerile respiration, heart sounds are sonorous. The abdomen is soft, the liver is +1 cm, the spleen is "-". The feces are yellow. The blood group of the mother is A (II) Rh+. The blood group of the child is 0 (I) Rh+. Bilirubin levels on the 4th day are as follows: indirect - 140  $\mu\text{mol/L}$ , direct - 0, ALT - 25  $\text{mmol/L}$ , AST - 18  $\text{mmol/L}$ . Make the diagnosis:

- a. Hemolytic anemia
- b. Hemolytic disease of the newborn
- c. Physiological jaundice
- d. Biliary atresia
- e. Congenital hepatitis

160. A 27-year-old woman, a teacher in the elementary school, complains of frequent stools, up to 3 times per day, with lumpy feces and large amount of mucus, abdominal pain that gradually abates after a defecation, irritability. Her skin is pale and icteric. Pulse is 74/min., rhythmic, can be characterized as satisfactory. Blood pressure is 115/70 mm Hg. The abdomen is soft, moderately tender along the colon on palpation. Fiberoptic colonoscopy detects no changes. What disease can be suspected?

- a. Chronic non-ulcerative colitis
- b. Whipple disease
- c. Irritable bowel syndrome
- d. Chronic enteritis
- e. Crohn disease (regional enteritis)

161. On the 9th day after childbirth the obstetric patient developed high fever up to 38°C. She complains of pain in the right mammary gland. The examination revealed the following: a sharply



painful infiltrate can be palpated in the right mammary gland, the skin over the infiltrate is red, subareolar area and nipple are swollen and painful. What is your diagnosis?

- a. Cancer of the right mammary gland
- b. Fibrous cystic degeneration of the right mammary gland
- c. Serous mastitis
- d. Mastopathy
- e. Abscess of the right mammary gland

162. A 42-year-old woman suffers from micronodular cryptogenic cirrhosis of the liver. During the last week, her condition deteriorated: she developed seizures and clouded consciousness, her jaundice intensified. What test can help find the cause of deterioration in this patient's condition?

- a. Serum ammonia levels
- b. alpha-fetoprotein levels
- c. Alkaline phosphatase levels
- d. ALT and AST levels
- e. Cholesterol ethers

163. During physical exertion, a 28-year-old man suddenly developed dyspnea, weakness, palpitations, and chest pain on the right that was radiating into the right shoulder. Objectively, his condition is severe, tachycardia - 100/min., respiratory rate - 28/min. The right half of the chest lags behind in the act of breathing. Percussion produces a tympanic sound over the lungs on the right. Respiratory sounds cannot be auscultated. Body temperature - 36.7°C) What is the most likely diagnosis in this case?

- a. Empyema of the pleural cavity
- b. Myocardial infarction
- c. Mediastinitis
- d. Spontaneous pneumothorax
- e. Lung abscess

164. Blood pressure and age were studied in 200 patients with essential hypertension. What statistical value should be used to measure the strength of the relationship between these characteristics?

- a. Sigma deviation
- b. Correlation coefficient
- c. Variation coefficient
- d. Student's t-test
- e. Representation error

165. Potatoes that became green or started sprouting, as a result of incorrect storage, taste slightly bitter. What toxic substance contained in such potatoes can cause food poisoning?

- a. Solanine
- b. Helvellic acid
- c. Phasin
- d. Muscaridine
- e. Muscarine

166. A 31-year-old woman has been suffering from systemic scleroderma for 14 years. She underwent multiple inpatient treatment courses. She complains of intermittent dull pain in the area of her heart, palpitations, shortness of breath, headache, swollen eyelids, weight loss, and painful and deformed joints in her limbs. The prognosis of her condition will be worse if which of the following organs is affected?

- a. Kidneys
- b. Gastrointestinal tract
- c. Heart
- d. Skin and joints
- e. Lungs

167. A 17-year-old girl complains of a pain and swelling of her second finger on the right hand. Three

days ago she made a manicure. The pain developed on the second day after that. Objectively, her nail fold is swollen, hyperemic, overhangs the nail plate, and is painful on palpation. What is the most likely diagnosis in this case?

- a. Subcutaneous panaritium
- b. Subungual panaritium
- c. Cutaneous panaritium
- d. Paronychia
- e. Erysipeloid

168. A 26-year-old woman presents with amenorrhea. 10 months ago she gave birth for a second time. In her early postpartum period she developed a massive hypotonic hemorrhage. No breastfeeding. Lately she has been presenting with loss of weight, loss of hair, and indisposition. Gynecological examination revealed atrophy of the external genitals, the uterus is abnormally small, no uterine appendages can be detected. What is the most likely diagnosis?

- a. Stein-Leventhal syndrome (polycystic ovary syndrome)
- b. Sheehan syndrome (postpartum pituitary gland necrosis)
- c. Galactorrhea-amenorrhea syndrome
- d. Physiological amenorrhea
- e. Suspected progressing ectopic pregnancy

169. The mother of a 4-year-old boy complains of frequent recurrent infections in her son. According to the patient's medical history, at the age of two he had an abscess on the right forearm and he has frequent cases of bacterial rhinosinusitis and pneumonia. Objectively, hypoplasia of the tonsils and lymph nodes is observed. The immunogram is as follows: emphiIgG - 0.4 g/L, emphiIgA - 0.01 g/L, emphiIgM - 0.01 g/L, emphiIgE - 88 IU/mL. Lymphocyte subpopulations: CD3+ - 90%, CD4+ - 47%, CD8+ - 44%, CD19+ - 0.2%, CD16/56+ - 6%. Molecular genetic study revealed a congenital defect of tyrosine kinase. What is the most likely diagnosis in this case?

- a. DiGeorge syndrome
- b. Hyperimmunoglobulin E syndrome (emphiIgE)
- c. Hereditary hypogammaglobulinemia (Bruton's disease)
- d. Nezelof syndrome
- e. Wiskott-Aldrich syndrome

170. An emergency medical team arrived at the scene of an accident 4 minutes after the accident occurred and found 5 victims. Carry out medical triage and determine the order in which the accident victims must be provided medical aid. Who must receive medical aid first in this case?

- a. The driver of the first car, a 32-year-old man, hit the steering wheel and complains of chest pain
- b. The passenger of the first car, a 27-year-old pregnant woman, somewhat agitated, complains of pain in the area of her right shoulder, other injuries not detected
- c. The second passenger of the first car, a 6-year-old boy, has multiple facial lacerations
- d. The driver of the second car, a 55-year-old man, hit the windshield and does not move, his condition is considered to be clinical death
- e. The passenger of the second car, a 57-year-old man, complains of pain in the area of his right thigh, medium-sized brown spots appeared on the right leg of his pants, the spots do not increase in size

171. Because of an accident at the sewage collector, a town risks an outbreak of intestinal infections. What would be the most effective method of water disinfection in this situation?

- a. Double chlorination
- b. Chlorination with pre-ammonization
- c. Hyperchlorination
- d. Ozonization
- e. Ultraviolet disinfection of water

172. A 55-year-old woman complains of thyroid gland enlargement that can be observed throughout the last 2 years and a discomfort during swallowing. Objectively, she has signs of hypothyroidism. The thyroid gland on palpation is dense, non-fused with the surrounding tissues and mobile on swallowing. The regional lymph nodes are not enlarged. In the serum there are antithyroid antibodies detected.

What is the most likely diagnosis?

- a. Acute thyroiditis
- b. Hashimoto's thyroiditis
- c. Thyroid cancer
- d. Endemic goiter
- e. Midline cervical cyst

173. A 27-year-old man complains of pain in his leg joints, purulent discharge from the eyes, and painful burning sensations during urination. Disease onset was acute. He has a history of influenza. The patient smokes and drinks alcohol in excess. In his line of work he is often away on business trips. What is the most likely etiological factor of this disease?

- a. Candida
- b. Adenovirus
- c. Streptococci
- d. Staphylococci
- e. Chlamydia

174. A 7-year-old boy after playing with a cat suddenly developed problems with breathing. Objectively, the boy is pale, frightened, and sits, leaning onto his arms. His body temperature is  $36.6^{\circ}\text{C}$ , heart rate - 120/min., respiration rate - 42/min., speaks in syllables. The exhale is long and accompanied by wheezing. Percussion detects a bandbox resonance over the lungs. An inhalation of ventolin (salbutamol) solution was started via a nebulizer. What can help assess the child's need for oxygen therapy in this case?

- a. Pneumotachometry
- b. Pulse oximetry
- c. Assessment of accessory respiratory muscles involvement
- d. Spirometry
- e. Chest X-ray

175. A man complains of decreased visual acuity and pain in his right eye and right-sided headache. Objectively, his right eye is red, the cornea is edematous, the anterior chamber is small, the pupil is dilated and unresponsive to light, intraocular pressure - 55 mm Hg. What is the most likely diagnosis in this case?

- a. Conjunctivitis
- b. Hemophthalmus
- c. Iridocyclitis
- d. Scleritis
- e. Acute glaucoma attack

176. Against the background of a fever of  $39.5^{\circ}\text{C}$ , a 2-year-old boy with an acute respiratory viral disease developed an attack of generalized tonic-clonic seizures with loss of consciousness. The attack lasted 3 minutes. After the attack, the child is conscious and mildly sleepy. Neurologically, no pathology was detected, neuropsychological development corresponds with the child's age. Previously, the child had no such attacks or any central nervous system disorders. What type of convulsive syndrome is most likely in the child?

- a. Symptomatic epilepsy
- b. Spasmophilia
- c. Febrile seizures
- d. Psychogenic nonepileptic seizure
- e. Typical absences

177. A 35-year-old woman has been prescribed ampicillin for pneumonia. Thirty minutes after an intramuscular injection of the drug, she felt sharp weakness and developed cough, dyspnea, and chest pain. Objectively, she has cyanosis, edema of the eyelids, and a red rash on her face. Pulse - 120/min., blood pressure - 70/20 mm Hg. Her heart sounds are dull. Her respiration is rapid and shallow, with heterogeneous wet crackles. Varicose veins are observed on the right lower leg. What is the most likely cause of the sudden deterioration of the woman's condition?

- a. Quincke's edema

- b. Pulmonary embolism
- c. Anaphylactic shock
- d. Asthma attack
- e. Urticaria

178. A 40-year-old patient was bitten by a stray dog an hour ago. On the left shin there is a bite mark - the wound is 4x2x0,5 cm in size. What surgical aid would be most efficient in this case?

- a. Lavage with soapy water, retention sutures
- b. Aseptic dressing
- c. Retention sutures
- d. Salve dressing
- e. Blind suture

179. A 60-year-old woman complains of limited mobility in her distal interphalangeal joints of both hands observed for 12 years and periodic pain in her back. Objectively, nodular thickening of the distal interphalangeal joints of both hands is observed, fingers are deformed, mobility is limited. No other pathology was detected. Results of blood and urine tests are within the normal range. What is the most likely diagnosis in this case?

- a. Ankylosing spondyloarthritis
- b. Osteoarthritis
- c. Reactive arthritis
- d. Gout
- e. Rheumatoid arthritis

180. On the day 4 after the cesarean section a woman developed fever with body temperature up to 39°C and abdominal pain. Pulse - 104/min. She vomited twice. The patient is sluggish, her tongue is dry and has gray coating. The abdomen is distended. Signs of peritoneal irritation are positive in all segments. Peristalsis cannot be auscultated. No passage of gas occurs. Uterine fundus is located at the level of the navel. The uterus is painful on palpation. The discharge is moderate and contains blood and pus. What is the most likely diagnosis?

- a. Metroendometritis
- b. Pelvic peritonitis
- c. Parametritis
- d. Progressive thrombophlebitis
- e. Diffuse peritonitis

181. A 42-year-old man, a dispatcher, suffers from peptic ulcer disease of the duodenum. The disease is of moderate severity. He wants to be assigned a disability group. Make the conclusion regarding his working ability:

- a. Capable of working, non-employable
- b. Second group of disability
- c. First group of disability
- d. Capable of working, employable
- e. Third group of disability

182. During the last week a 26-year-old woman started doing many things that were new and unusual for her. In particular, she started painting the walls in the house entranceway on her own and was writing poems at night, while making illustrations for them. Objectively, she is talkative, quickly changes topics of conversation, actively gestures, jokes, and flirts with men. She believes that she could have been a great actress, writer, and artist, and invites everyone to attend her evening "art recitals". What psychopathological condition is observed in the patient?

- a. Excited catatonia
- b. Hebephrenic syndrome
- c. Hysterical neurosis syndrome
- d. Manic syndrome
- e. Pseudoparalytic dementia

183. A 38-year-old patient has been delivered by an ambulance to a surgical department with

complaints of general weakness, indisposition, black stool. On examination the patient is pale, there are dotted hemorrhages on the skin of his torso and extremities. On digital investigation there are black feces on the glove. Complete blood count: Hb - 108 g/L, thrombocytopenia. Anamnesis states that similar condition was observed 1 year ago. Make the diagnosis:

- a. Rectal tumor
- b. Thrombocytopenic purpura
- c. Hemophilia
- d. Nonspecific ulcerative colitis
- e. Ulcerative bleeding

184. A man was repairing a fence and injured his right elbow with a wire. Three days later he developed edema, hyperemia, reduced range of movements in the joint, intense pain, and local and general increase of temperature. Objectively, the right elbow is enlarged, the skin over it is edematous and hyperemic; regional lymph nodes are enlarged, thickened, and painful. Palpation of the right elbow detects sharp pain and fluctuation. Make the provisional diagnosis.

- a. Abscess
- b. Erysipelas
- c. Bursitis
- d. Lymphadenitis
- e. Hidradenitis