

1. A patient has been diagnosed with right-sided pneumothorax and prescribed urgent drainage of the pleural cavity. What site should be used for the pleural tap in this case?

- A. The second intercostal space, on the midclavicular line
- B. The sixth intercostal space, on the posterior axillary line
- C. The seventh intercostal space, on the scapular line
- D. The projection of the pleural sinus
- E. The site of the largest percussion dullness

2. A 29-year-old patient suffers from hormone-dependent bronchial asthma. Fluorography detects a round shadow of medium intensity with clear even contours in C2 of the right lung. Around the shadow, there are several polymorphic focal shadows. There is a calcination at the root of the lung. Examination detects a banbox resonance in the percussion sound over the lungs, diffuse dry crackles can be heard. Blood test detects no changes. Mantoux test reaction with 2 tuberculin units PPD-L resulted in a papule 22 mm in size. What is the most likely diagnosis in this case?

- A. Tuberculoma
- B. Peripheral cancer
- C. Pneumonia
- D. Aspergilloma
- E. Eosinophilic infiltration

3. 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. Acute hallucinosis
- B. Verbal illusions
- C. Delirium
- D. Confabulations
- E. Intrusive thoughts

4. A 42-year-old woman complains of morning stiffness in the joints of her hands, a feeling of tightness in the skin of her face, and difficulty swallowing food. Objectively, she has facial amimia, her oral cavity has a "pouch-like" narrowing, her fingertips are pale and cold to the touch. Auscultation detects arrhythmic and weakened heart

sounds and systolic murmur over the apex. Blood test revealed the following: erythrocytes — $3.2 \cdot 10^{12}/L$, leukocytes — $6.7 \cdot 10^9/L$, ESR — 35 mm/hour. What is the most likely diagnosis in this case?

- A. Scleroderma
- B. Rheumatoid arthritis
- C. Sjogren's syndrome
- D. Systemic lupus erythematosus
- E. Rheumatism

5. An 18-year-old patient complains of cramping abdominal pain, and loose stools up to 6 times a day with mucus and fresh blood. He has been ill for a year and lost 10 kg. Objectively, the abdomen is soft and painful along the large intestine, especially on the left. The sigmoid colon is spastic. Blood test results are as follows: erythrocytes — $3.2 \cdot 10^{12}/L$, hemoglobin — 92 g/L, leukocytes — $10.6 \cdot 10^9/L$, ESR — 34 mm/hour. Irrigoscopy shows that the large intestine is narrowed, there are no haustra, the contours are unclear, the "lead pipe" sign is observed. What is the most likely diagnosis in this case?

- A. Nonspecific ulcerative colitis
- B. Shigellosis
- C. Chronic enterocolitis
- D. Intestinal tuberculosis
- E. Crohn's disease

6. A patient complains of a rash and itching that becomes worse in the evening and at night and has been observed for 2 weeks already. Objectively, a papulovesicular rash with its elements arranged in pairs is observed on the lateral areas of the chest and abdomen and in the interdigital folds. What is the most likely diagnosis in this case?

- A. Scabies
- B. Neurodermatitis
- C. Psoriasis
- D. Eczema
- E. Toxicoderma

7. A 28-year-old woman complains of a feeling of unreality, of her own body being changed somehow. When she stands in front of a mirror, she recognizes herself, but her hands, legs, and face seem alien like they do not belong to her. What is the most likely psychopathological disorder in the patient?

- A. Depersonalization
- B. Derealization
- C. Hallucinations
- D. Cenesthopathy
- E. Illusions

8. 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. Manic syndrome
- B. Hysterical neurosis syndrome
- C. Hebephrenic syndrome
- D. Pseudoparalytic dementia
- E. Excited catatonia

9. Assess the physical development of a 10-year-old girl according to the regression scale, if her body weight and chest circumference parameters are within ± 1 sigma.

- A. Harmonious
- B. Disharmonious
- C. Average
- D. Low
- E. High

10. 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. Hymenal atresia
- B. Vulvar endometriosis
- C. Genital infantilism
- D. Amenorrhea of unknown etiology
- E. Ovarian dysfunction

11. Examination of the placenta that was just delivered detected a defect 2x3 cm in size. There is no bleeding. What would be the further tactics of the patient's management?

- A. Manual revision of the uterine cavity
- B. Preresciption of uterotonics
- C. External uterine massage
- D. Extirpation of the uterus
- E. Instrumental revision of the uterine cavity

12. A 27-year-old woman at 17 weeks of her pregnancy has been hospitalized for treatment. She has a history of two spontaneous miscarriages. Bimanual examination reveals that her uterus is enlarged to 17 weeks of pregnancy, the cervix is shortened, and the opening allows inserting a fingertip. The woman was diagnosed with cervico-isthmic insufficiency. Specify the further tactics of managing this patient.

- A. Apply cervical stitch
- B. Provide tocolytic therapy
- C. Terminate the pregnancy
- D. Provide hormonal therapy
- E. Perform amniocentesis

13. A premature baby born at 34 weeks of gestation presents with the following at 4 hours after birth: tachypnea, respiration with a seesaw motion, sternum depression, expiratory murmurs. Respiratory rate — 80/min. Auscultation detects weakened breathing with non-constant heterogeneous crackles over the lungs. X-ray of the lungs shows air bronchogram and a nodose-reticular lung pattern. What is the most likely diagnosis in this case?

- A. Hyaline membrane disease
- B. Pulmonary atelectasis
- C. Massive meconium aspiration syndrome
- D. Birth injury
- E. Neonatal pneumonia

14. A 38-year-old man complains of cough with purulent sputum (up to 60–80 mL per day) and a fever of 39°C. He associates his condition with overexposure to cold. Objectively, his pulse is 96/min., rhythmic. Blood pressure — 110/60 mm Hg. Examination revealed that the right side was lagging behind in the process of breathing. Respiratory rate — 30/min. Percussion detects local dullness of the sound near the angle of the scapula. Auscultation detects heterogeneous wet crackles and amphoric breathing. What is the most likely diagnosis in this case?

- A. Acute lung abscess
- B. Acute bronchitis
- C. Bronchial asthma
- D. Focal pneumonia
- E. Pleural empyema

15. A 42-year-old woman has been hospitalized with complaints of dull, aching pain in her lower back, more on the right side, and her body temperature sometimes increasing to subfebrile levels. The patient's medical history states that 10 years ago during pregnancy she had a pain attack in her lumbar region on the right and a fever of 39°C. She underwent treatment with antibiotics. In recent years, she was feeling satisfactory. An increase in blood pressure has been observed for the past 5 years. Urinalysis revealed the following: protein — 0.66 g/L, leukocytes — 10–15 in sight, erythrocytes — 2–3 in sight. What is the most likely diagnosis in this case?

- A.** Chronic pyelonephritis
- B.** Essential hypertension
- C.** Chronic glomerulonephritis
- D.** Renal urolithiasis
- E.** Renal tuberculosis

16. A 5-year-old child complains of attacks of spasmodic cough. The child has been ill for 2 weeks after the dry cough appeared. After the treatment that was ineffective, relapses started occurring. During a cough attack, the child's face becomes red and neck veins swell. Objectively, the patient is pale, with edematous face and hemorrhages in the sclera. Auscultation detects a bandbox resonance over the lungs on percussion and dry crackles. X-ray detects increased transparency of the lung fields and intensified bronchial pattern. Blood test results are as follows: leukocytes — $16 \cdot 10^9/L$, lymphocytes — 72%, ESR — 4 mm/hour. What is the most likely diagnosis in this case?

- A.** Pertussis
- B.** Adenovirus infection
- C.** A foreign body in the airways
- D.** Laryngotracheitis
- E.** Tuberculous bronchoadenitis

17. Three days ago a 29-year-old patient developed throbbing pain in the rectum, increased body temperature, and general weakness. Palpation detected local soreness in the anal region at 6 o'clock. Digital examination of the rectum revealed a painful infiltrate that reached no higher than the pectinate line. What is the most likely diagnosis in this case?

- A.** Acute paraproctitis
- B.** Acute anal fissure
- C.** Acute hemorrhoids
- D.** Rectal tumor
- E.** Acute prostatitis

18. A 27-year-old woman complains of sharp pain in her lower abdomen and dizziness. Her last menstruation was 2 weeks ago. HCG test results are negative. Objectively, her skin is pale, blood pressure — 80/60 mm Hg, pulse — 92/min. The abdomen is tense, painful more on the right in its lower segments. Vaginal examination detects normal-sized uterus, the appendages are painful to palpation, the posterior fornix overhangs. What is the most likely diagnosis in this case?

- A.** Ovarian apoplexy
- B.** Ectopic pregnancy
- C.** Acute appendicitis
- D.** Exacerbation of chronic right-sided adnexitis
- E.** Pedicle torsion of an ovarian cyst

19. A 25-year-old woman was hospitalized into the maternity hospital at 34 weeks of her pregnancy with complaints of bright-colored bloody discharge with clots that appeared after a defecation. Objectively, the fetal head is palpable near the uterine fundus. Fetal heart rate — 140/min. No labor activity. Vaginal examination shows that the cervix is 3 cm long, its opening allows inserting a fingertip, a soft formation can be palpated through the vaginal fornix. The discharge is hemorrhagic and bright-colored. What is the most likely diagnosis in this case?

- A.** Placenta praevia
- B.** Uterine rupture
- C.** Placental abruption
- D.** Low-lying placenta
- E.** Premature birth

20. A 32-year-old woman complains of aching pain in her lower abdomen and intensified and painful menstruations. She has a history of 2 abortions and no childbirth. Objectively, the skin is pale, the abdomen is soft and painless, a tumor-like mass is palpable above the pubis. Bimanual examination shows that the body of the uterus is enlarged to 14 weeks of pregnancy, dense, mobile, with an uneven surface. The appendages are not palpable. What is the most likely diagnosis in this case?

- A.** Nodular uterine leiomyoma
- B.** Ovarian cystoma
- C.** Pregnancy
- D.** Endometriosis
- E.** Kidney tumor

21. A 28-year-old man without the permanent place of residence was hospitalized with the provisional diagnosis of

influenza. On day 5 after the onset of the disease, a roseolar petechial rash appeared on his trunk and on the inner surfaces of the limbs. Objectively, the patient presents with the body temperature of 40°C, euphoria, facial hyperemia, redness of the sclera, tremor of the tongue, tachycardia, splenomegaly, and agitation. What is the most likely diagnosis in this case?

- A. Epidemic typhus
- B. Delirium tremens
- C. Leptospirosis
- D. Measles
- E. Typhoid fever

22. A 25-year-old woman complains of profuse, foul-smelling, foamy discharge from her vagina and burning and itching in the area of her genitals. She has been ill for a week and has no regular sexual partner. Vaginal examination detects foamy discharge and hyperemic vaginal mucosa that bleeds when touched. What is the most likely diagnosis in this case?

- A. Trichomonas colpitis
- B. Gonorrheal cervicitis
- C. Chlamydial cervicitis
- D. Vaginal candidomycosis
- E. Bacterial vaginosis

23. A 19-year-old young woman complains of absence of menstruations, lethargy, and weight loss. One year ago she had a pathological childbirth with significant blood loss and no lactation after the childbirth. Vaginal examination shows that the vagina is narrow, the uterus is reduced in size, and the ovaries are not palpable. Laboratory testing detected hypoestrogenemia. What is the most likely diagnosis in this case?

- A. Sheehan syndrome
- B. Hypothyroidism
- C. Astheno-vegetative syndrome
- D. Stein-Leventhal syndrome
- E. Genital tuberculosis

24. A 14-year-old girl complains of vaginal bleeding that lasts for 10 days and occurred after a three-month delay of menstruation. She had menarche at the age of 13, her menstrual cycle is irregular. Complete blood count detects hemoglobin levels of 90 g/L. What is the most likely diagnosis in this case?

- A. Juvenile uterine bleeding
- B. Werlhof's disease
- C. Cervical polyp
- D. Hormone-producing uterine tumor
- E. Uterine malformation

25. A 12-year-old girl complains of weakness, dizziness, headache, and a fever of 38°C. Objectively, her body temperature is 37.8°C, her mucosa and skin are pale, her pharynx is without changes. Palpation detects submandibular and cervical lymph nodes that are enlarged to 2 cm, dense and painless. No pathological changes of internal organs were detected. Complete blood count: erythrocytes — $2.8 \cdot 10^{12}/L$, hemoglobin — 85 g/L, color index — 0.9, leukocytes — $10 \cdot 10^9/L$, eosinophils — 0%, band neutrophils — 1%, segmented neutrophils — 8%, lymphocytes — 47%, reticulocytes — 0.5%, platelets — $60 \cdot 10^9/L$, blast cells — 44%. What is the most likely diagnosis in this case?

- A. Acute leukemia
- B. Acute erythromyelosis
- C. Chronic lymphocytic leukemia
- D. Infectious mononucleosis
- E. Lymphogranulomatosis

26. A 50-year-old patient complains of headache, itchy skin, and pain in the toes and muscles, especially during walking. Objectively, the skin of the face has a red-cyanotic tint. Lymph nodes are not palpable. Pulse — 76/min. Blood pressure — 180/100 mm Hg. The lungs have no abnormalities. The borders of the heart are displaced to the left by 2 cm. The liver is +2 cm. The spleen is near the edge of the costal arch, dense and painless. Complete blood count: erythrocytes — $6.3 \cdot 10^{12}/L$, hemoglobin — 201 g/L, color index — 0.8, leukocytes — $10.5 \cdot 10^9/L$, eosinophils — 4%, band neutrophils — 7%, segmented neutrophils — 62%, lymphocytes — 22%, monocytes — 5%, platelets — $500 \cdot 10^9/L$, ESR — 1 mm/hour, hematocrit — 55%. What is the most likely diagnosis in this case?

- A. Polycythemia vera
- B. Cushing disease
- C. Essential hypertension
- D. Obliterating endarteritis
- E. Secondary erythrocytosis

27. A 24-year-old patient complains of sharp pain and a rash in the form of small vesicles on the left side of the trunk. The patient associates this condition with overexposure to cold. Objectively, small vesicles cluster together on the skin of

the trunk on the left, along the nerve. Inflammatory erythema is observed on the periphery of the vesicles. What is the most likely diagnosis in this case?

- A. Shingles
- B. Herpes simplex
- C. Eczema
- D. Dermatitis
- E. Dermatitis herpetiformis (Dühring's disease)

28. A 50-year-old man has been hospitalized in a severe condition. ECG revealed signs of acute myocardial infarction. Objectively, the patient is anxious, tense, disoriented in the place and time and correctly oriented in his own person. The patient experiences auditory and bright visual hallucinations of a frightening nature, under the influence of which he is agitated and prone to aggressive actions. The patient expresses fragmentary delusions. What leading psychopathological syndrome is observed in the patient?

- A. Delirious syndrome
- B. Oneiroid syndrome
- C. Paranoid syndrome
- D. Amentive syndrome
- E. Hallucinosis

29. During physical exercises, a 32-year-old patient suddenly felt lack of air, weakness, chest pain on the right that radiated into the right shoulder, shortness of breath, and palpitations. Objectively, the patient's condition is severe, tachycardia is up to 100/min., blood pressure — 90/60 mm Hg, respiratory rate — 28/min., the right half of the chest lags behind during breathing. Percussion detects tympanic sound on the right, no respiratory sounds were detected there. The body temperature is normal. What is the most likely diagnosis in this case?

- A. Spontaneous pneumothorax
- B. Myocardial infarction
- C. Pulmonary infarction
- D. Vascular collapse
- E. Pneumonia

30. 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. Correlation coefficient
- B. Student's coefficient
- C. Coefficient of variation
- D. Representativeness error
- E. Sigma deviation

31. A 37-year-old patient complains of general weakness, spastic pain in the lower segments of the abdomen, mainly in the left iliac region, and loose stools with mucus and blood up to 18 times a day. The disease onset was acute and occurred three days ago with chills, feeling hot, and a headache. The patient's general condition is moderately severe, body temperature — 37.8°C . Palpation detects spastic and painful sigmoid colon. What is the most likely diagnosis in this case?

- A. Shigellosis
- B. Amoebiasis
- C. Non-specific ulcerative colitis
- D. Yersiniosis
- E. Salmonellosis

32. A 30-year-old woman complains of abdominal discomfort on the left, pain in the joints, fever, and periodic hemorrhages. Objectively, hepatolienal syndrome is observed. Complete blood count revealed the following: leukocytes — $200 \cdot 10^9/\text{L}$, numerous granulocytes at various degrees of maturity, myeloblasts — $< 5\%$ in the bone marrow, the Rh-chromosome is positive. What is the most likely diagnosis in this case?

- A. Chronic myeloid leukemia
- B. Malignant tumor
- C. Leukemoid reaction
- D. Myelofibrosis
- E. Acute leukemia

33. A 65-year-old patient complains of shortness of breath, cough with foaming pink sputum, lack of air, and fear of death. Objectively, orthopnea, pale skin, acrocyanosis, and cold sticky sweat are observed in the patient. Auscultation detects coarse breathing with wet fine and medium vesicular crackles in the inferoposterior segments on both sides. Respiratory rate — 40/min. The heart sounds are sharply muffled. At the top of the heart, a gallop rhythm is observed. What is the most likely diagnosis in this case?

- A. Pulmonary edema
- B. Bronchial asthma
- C. Focal pneumonia
- D. Infarction pneumonia
- E. Pulmonary thromboembolism

34. A 44-year-old woman complains of

generally feeling unwell, chills, a fever of 39°C , and constant burning pain, skin redness, and edema in the area of her left lower leg. The onset of the disease she associates with a scratch on the skin of her left lower leg that she received two days ago. Objectively, in the middle third of the left lower leg, there is a bright area of skin hyperemia with clear borders raised above the unchanged skin. Moderate edema of soft tissues is observed, the soft tissues are painful during palpation. In the center of the hyperemic skin, there is a scab 2×0.2 cm in size that covers a small superficial wound. What complication of microtrauma of the left lower leg is observed in the patient?

- A. Erysipelas
- B. Acute purulent osteomyelitis
- C. Phlegmon
- D. Gas gangrene
- E. Acute deep vein thrombophlebitis

35. 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°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. Pulmonary gangrene
- B. Lung abscess
- C. Cavernous tuberculosis
- D. Bronchiectasis
- E. Lung cancer with disintegration

36. A 4-day-old boy developed signs of hemorrhagic disease of the newborn in the form of melena. What drug should the doctor have prescribed in the first hours of life to prevent this disease?

- A. Vitamin *K*
- B. Calcium gluconate
- C. Ethamsylate
- D. Aminocaproic acid
- E. Vitamin *C*

37. A 3-day-old full-term baby has the following blood test results: indirect bilirubin levels — 345 $\mu\text{mol/L}$, hourly increase — 6.8 $\mu\text{mol/L}$. The child's condition is severe. Objectively, the child presents with decreased reflexes, muscle hypotonia, and limb tremor. The blood of the child and the mother is Rh-incompatible. What would be the most effective method of treatment in this case?

- A. Exchange blood transfusion
- B. Phototherapy
- C. Administration of phenobarbital
- D. Hemosorption
- E. Corticosteroid therapy

38. A 30-year-old patient has been hospitalized. The patient's history states that the disease onset was acute and started with frequent watery stools, later followed by thirst and profuse vomiting without nausea. Objectively, the body temperature is 35.4°C . The patient's condition is severe, the skin is cold. Tissue turgor and skin elasticity are significantly reduced. The facial features are drawn. The voice is hoarse. Acrocyanosis and anuria are observed. Pulse — 130/min., weak. Blood pressure — 60/30 mm Hg. The tongue is dry. The abdomen is sunken and painless, palpation detects noticeable rumbling in the intestines. What is the most likely diagnosis in this case?

- A. Cholera
- B. Salmonellosis
- C. Shigellosis
- D. Rotavirus gastroenteritis
- E. Foodborne toxic infection

39. A 43-year-old patient was hospitalized 40 minutes after the onset of acute pain in the epigastrium. The pain later moved into the right iliac region. Objectively, the following is observed: sharp tension of the muscles of the anterior abdominal wall, positive signs of Blumberg, Mussy-Georgievsky, Chugaev, and Bernstein. Hepatic dullness is absent. What is the most likely diagnosis in this case?

- A. Perforated stomach ulcer
- B. Acute appendicitis
- C. Acute pancreatitis
- D. Acute cholecystitis
- E. Renal colic

40. A man complains of dizziness and vomiting. Vomitus is dark-colored. The patient's history states that he often drinks alcohol. Esophagogastroduodenoscopy detected that the contents of the stomach resembled "coffee grounds", in the area of the cardia, there were four longitudinal fissures in the mucosa, from which a small amount of blood was leaking. What is the most likely diagnosis in this case?

- A. Mallory-Weiss syndrome
- B. Gastric cardia ulcer
- C. Bleeding from gastric varices
- D. Erosive gastritis
- E. Zollinger-Ellison syndrome

41. Examination of a milk sample detected the following: color — whitish, odor — normal, taste — characteristic of milk, density — 1.038, acidity — 35°Th (Thorner degrees), fat content — 3.2%. Determine the milk quality.

- A. The milk is of poor quality
- B. The milk is of good quality
- C. The milk is of reduced quality
- D. The milk is falsified
- E. The milk can be used only under certain conditions

42. Examination of pork detected 2 trichinella in 24 sections on the compressorium. What should be done with this meat?

- A. Technically utilized
- B. Cut into small pieces and boiled
- C. Deep frozen
- D. Used to make sausages
- E. Used in public catering networks

43. A children's preschool institution is located near a highway, where carbon monoxide levels in the air are 3–4 times higher than the maximum permissible concentration. What substance, detected in the children's blood, will confirm the harmful effect of polluted air?

- A. Carboxyhemoglobin
- B. Carbhemoglobin
- C. Methemoglobin
- D. Hemoglobin
- E. Reduced hemoglobin

44. A 10-month-old boy is poorly gaining weight. His mother complains about his constant persistent cough. Sputum is thick and viscous. The boy had pneumonia three times. His sweat chloride levels are over 80 mEq/L. What is the most likely diagnosis in this case?

- A. Mucoviscidosis (cystic fibrosis)
- B. Chronic bronchitis
- C. Bronchial asthma
- D. Congenital lung abnormality
- E. A foreign body in the bronchi

45. A 15-year-old girl complains of delayed growth and absence of menstruations and secondary sexual characteristics. Objectively, she has the height of 153 cm, anti-mongoloid slant of the eyes, wide neck, wing-like folds on the neck (webbed neck),

low line of hair growth on the neck. Her shoulder girdle prevails over the pelvic girdle, the mammary glands are not developed, pubic hair is absent. Uterine hypoplasia was detected. What is the most likely diagnosis in this case?

- A. Turner syndrome
- B. Dwarfism
- C. Hypogenitalism
- D. Klinefelter syndrome
- E. Neurofibromatosis

46. One hour after being fed with a milk formula, the baby developed cyanosis of the lips, mucosa, nails, and face. Later the baby developed nausea, increased salivation, pain in the epigastric region, vomiting, and diarrhea. The pediatrician detected signs of cardiopulmonary failure in the baby. Investigation determined that the milk formula was prepared using the water from a well. What is the most likely diagnosis in this case?

- A. Nitrate-nitrite intoxication
- B. Foodborne toxicoinfection
- C. Staphylococcal toxicosis
- D. Food poisoning caused by organochlorine pesticides
- E. Food poisoning caused by heavy metals

47. 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. Tetralogy of Fallot
- B. Ventricular septal defect
- C. Atrial septal defect
- D. Primary bacterial endocarditis
- E. Dilated cardiomyopathy

48. Chemical analysis of the water has detected increased concentration of nitrogen-containing salts, iron and sulfates. What parameter of water quality is most informative in such cases and indicates fresh contamination of water with organic substances of animal origin?

- A. NH_3
- B. NO_2
- C. NO_3
- D. Fe
- E. SO_4

49. A child was born from the first pregnancy, accompanied by gestosis of the first and second half. The delivery was via a caesarean section. Apgar score — 6 points. The baby's weight — 3000 g. The baby was suckling actively, no burping. Two weeks later, the baby developed projectile vomiting with curdled milk in the vomitus that exceeded in volume the amount of baby's meals. The baby has become lethargic, is poorly gaining weight, the amount of urine and feces has decreased. What is the most likely diagnosis in this case?

- A. Pyloric stenosis
- B. Pylorospasm
- C. Adrenogenital syndrome
- D. Intestinal obstruction
- E. Acute intestinal infection

50. What food product can cause diphyllotriasis, if insufficiently processed?

- A. Fish
- B. Pork
- C. Mutton
- D. Beef
- E. Poultry

51. 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. Pituitary dwarfism
- B. Craniopharyngioma
- C. Chondrodystrophy
- D. Down syndrome
- E. Fanconi syndrome

52. A multipara woman developed vaginal bleeding with the onset of full-term delivery. Internal obstetric examination detected the following: the cervix is smoothed out, the opening is 6 cm, 1/3 of the internal os is obstructed by a spongy tissue. The amniotic sac is palpable in the rest of this area. The labor is active.

Specify the further tactics of the delivery management in this case.

- A. Amniotomy
- B. Caesarean section
- C. Stimulation of the labor
- D. Stopping the active labor
- E. Hemostatic therapy

53. A 30-year-old woman on the fifth day after the physiological childbirth complained of swelling of her left breast, pain, reddened skin, and a fever of 38°C. Objectively, her left mammary gland is enlarged, the skin there is red, with cyanosis in the upper-outer quadrant. A sharply painful infiltrate without clear borders can be palpated. Expressing milk does not bring relief. What is the most likely diagnosis in this case?

- A. Acute infiltrative mastitis
- B. Infected breast cyst
- C. Lactostasis
- D. Erysipelas
- E. Breast cancer

54. A 29-year-old woman complains of infertility and an oligomenorrhea type of abnormal menstrual cycle. Objectively, she has the height of 160 cm and the body weight of 91 kg, growth of hair is observed on her face and thighs. Bimanual examination detects enlarged dense ovaries 5x6 cm in size on both sides. These data were confirmed by ultrasound. What is the most likely diagnosis in this case?

- A. Sclerocystic ovarian syndrome (Stein-Leventhal)
- B. Ovarian androblastoma
- C. Premenstrual syndrome
- D. Chronic bilateral adnexitis
- E. Adrenogenital syndrome

55. A 29-year-old woman complains of profuse bloody discharge from her genital tracts. She notes a three-month delay of menstruation. She has a history of one childbirth and one medical abortion. Vaginal examination detects a significant amount of hemorrhagic discharge with vesicles from the cervix, the body of the uterus is enlarged to 15–16 weeks of pregnancy, softened, painless. Both ovaries are enlarged, mobile, and painless. Chorionic gonadotropin in the blood — 200,000 units. What is the most likely diagnosis in this case?

- A. Molar pregnancy
- B. Ectopic pregnancy
- C. 12 weeks of pregnancy, threatened abortion
- D. Cervical pregnancy
- E. 12 weeks of pregnancy, spontaneous abortion in progress

56. A 50-year-old woman complains of acute pain in the epigastric region, vomiting, and sudden general weakness. The disease onset was 2 days ago. Objectively, she has pale skin and dry tongue. Pulse — 100/min., of poor volume, blood pressure — 110/70 mm Hg. During palpation, the abdomen is soft, moderately painful in the epigastrium and mesogastrium, there are no signs of peritoneal irritation. Peristalsis is significantly increased in the mesogastrium on the left. X-ray detected Klover bowls (air-fluid levels) on the left. What is the most likely diagnosis in this case?

- A. Intestinal obstruction
- B. Acute pancreatitis
- C. Perforated duodenal ulcer
- D. Acute cholecystitis
- E. Food poisoning

57. A 32-year-old primipara woman developed intense contractions that last 55–60 seconds with an interval of 1–2 minutes between them. Objectively, the disengagement of the fetal head begins. The perineum protrudes excessively and has the height of 4 cm. The skin of the perineum is pale and tense. After a contraction stopped, a thin stream of blood appeared from the genital opening. Specify the further tactics of managing the delivery.

- A. Episiotomy
- B. Application of obstetrical forceps
- C. Caesarean section
- D. Vacuum extraction of the fetus
- E. Waiting tactics

58. Laboratory quality control of drinking water from the tap had the following results: turbidity — 1.5 mg/m³, 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. Turbidity
- C. Chromaticity
- D. Temperature
- E. Taste

59. A 27-year-old woman complains of pain and morning stiffness in the small joints of her hands. Her condition is weather-

dependent. Objectively, she presents with swelling and deformation of her proximal interphalangeal joints and her second and third metacarpophalangeal joints. X-ray of the hands detects bone erosions (usurations) and signs of osteoporosis. What is the most likely diagnosis in this case?

- A. Rheumatoid arthritis
- B. Systemic lupus erythematosus
- C. Systemic scleroderma
- D. Rheumatic polyarthritis
- E. Psoriatic arthritis

60. Six hours after fibroesophagogastroscopy, a 32-year-old woman developed a fever of 39°C, retrosternal pain, dry mouth, and increasing dyspnea. Examination detected positive Romanov-Gerke sign and subcutaneous emphysema in the left supraclavicular space. What is the most likely diagnosis in this case?

- A. Acute mediastinitis
- B. Pneumonia
- C. Acute abscess of the lung
- D. Pleural empyema
- E. Pyopneumothorax

61. After repeated disinfection of the surgical instruments with a weak solution of a liquid disinfectant, a nurse gradually developed skin inflammation on the palmar surfaces of her hands. Objectively, her palms are edematous. Diffuse erythema without clear boundaries is observed on the palms, with isolated papular rash elements present against its background. The results of allergic skin testing are negative. What is the most likely diagnosis in this case?

- A. Contact dermatitis
- B. Erysipelas
- C. Eczema
- D. Toxicoderma (drug eruption)
- E. Chemical burn

62. A 47-year-old patient complains of pain in the lumbar region. The patient was provisionally diagnosed with radiculitis and a course of physiotherapy was carried out. However, the patient's condition did not improve. X-ray of the spine and pelvis revealed osteoporosis and significant bone defects. Complete blood count revealed normochromic anemia and total protein of 107 g/L. General urinalysis revealed proteinuria of 4.0 g/L. What study is necessary to establish the final diagnosis in this case?

- A. Sternal puncture
- B. Comprehensive blood testing
- C. Abdominal ultrasound
- D. Cytochemistry of blood cells
- E. Radioisotope study of the kidneys

63. A 12-year-old girl complains of high body temperature, muscle pain, and difficulty swallowing food. Objectively, the following is observed: periorbital edema with a pink-purple tint, pain and decreased muscle tone on palpation, capillaritis in the area of the finger pads and palms, expanded borders of the heart, muffled heart sounds, hepatosplenomegaly. Laboratory testing revealed increased levels of creatinine in blood and urine. What is the most likely diagnosis in this case?

- A. Dermatomyositis
- B. Scleroderma
- C. Systemic lupus erythematosus
- D. Periarteritis nodosa
- E. Juvenile rheumatoid arthritis

64. A 58-year-old woman complains of dizziness, weakness, and losing 14 kg within 2 months. The patient has a past history of tuberculosis. Objectively, she presents with increased skin pigmentation, body weight deficit of 10 kg, and blood pressure of 90/55 mm Hg. Blood test revealed the following: Na — 117 mmol/L, K — 6.4 mmol/L, Cl — 116 mmol/L, $[HCO_3^-]$ — 27 mEq/L, glucose — 2.9 mmol/l. What is the most likely diagnosis in this case?

- A. Adrenal insufficiency
- B. Chronic renal insufficiency
- C. Goodpasture syndrome
- D. Renal vein thrombosis
- E. ACTH-secreting tumor

65. An 18-year-old young man was hospitalized after a fight with signs of internal bleeding. Anamnesis states that he has hemophilia A. He was diagnosed with an extraperitoneal hematoma. What must be prescribed to the patient first?

- A. Cryoprecipitate
- B. Aminocaproic acid
- C. Dried plasma
- D. Packed platelets
- E. Fresh blood

66. A 27-year-old woman came to a doctor with complaints of enlarged lymph nodes on the right side of her neck and in the axillary region, night sweats, and a fever over $38^\circ C$. Morphological study of the biopsy material obtained from a lymph node detected Reed-Sternberg cells. What is the

most likely diagnosis in this case?

- A. Lymphogranulomatosis
- B. Chronic lymphocytic leukemia
- C. Malignant lymphoma
- D. Lymph node tuberculosis
- E. Tumor metastases in the lymphatic nodes

67. A military medical committee detected arterial hypertension in a 17-year-old boy — his blood pressure on the arms is 190/110 mm Hg. He has no complaints. A disproportionate body structure is observed — a well-developed shoulder girdle and underdeveloped legs. What study would be most informative in this case and should be used to establish the diagnosis?

- A. Measuring the blood pressure in the legs
- B. Measuring catecholamines in urine
- C. Renoscintigraphy
- D. Dopplerography of vessels
- E. Ultrasound of the kidneys and adrenal glands

68. The microclimate of industrial premises can be characterized by the following parameters: average air temperature — $+35^\circ C$, radiant temperature — $+30^\circ C$, relative air humidity — 50%, air flow velocity — 0.01 m/s. Name the main type of heat transfer that takes place in such microclimatic conditions.

- A. Evaporation
- B. Convection
- C. Conduction
- D. Radiation
- E. —

69. A 38-year-old patient complains of pain in the lower back and left knee and ankle joints. Blood test results were as follows: leukocytes — $11 \cdot 10^9/L$, ESR — 38 mm/hour, CRP — ++, ASL-O titer — 125 units, uric acid — 375 $\mu\text{mol/L}$, rheumatoid factor — negative. Chlamydia were detected in the urethral swab. X-ray shows that the articular surfaces on the left are uneven, indistinct, the joint space is narrowed. What is the most likely diagnosis in this case?

- A. Reactive polyarthritis
- B. Ankylosing spondylitis
- C. Rheumatoid polyarthritis
- D. Spinal osteochondrosis
- E. Gouty arthritis

70. Objectively, a 22-year-old patient has numerous non-inflammatory yellowish-brown and pale pink spots on the skin of the chest, neck, shoulders, and the sides of the torso. When the spots are scratched,

the sign of "shavings" is observed. The disease onset was 2 years ago, the rashes were first noticed after a summer vacation by the sea. What is the most likely diagnosis in this case?

- A. Tinea versicolor (Pityriasis versicolor)
- B. Pityriasis rosea Gibert
- C. Syphilitic roseola
- D. Erythrasma
- E. Streptoderma

71. A 65-year-old woman with diabetes mellitus was undergoing treatment with metformin. Because of high blood pressure, she was taking diuretics. Gradually, the effectiveness of the diuretic decreased and nausea and vomiting appeared. Objectively, the patient does not respond to stimuli, her skin is dry, the smell of acetone is absent. Blood pressure — 180/100 mm Hg. The heart sounds are muffled, pulse — 98/min. Her respiration is vesicular. The liver is +4 cm. Blood testing revealed the following: glucose — 48 mmol/L, Na — 156 mmol/L, K — 5.2 mmol/L, urea — 15 mmol/L. What complication has developed in the patient?

- A. Hyperosmolar coma
- B. Ketoacidotic coma
- C. Lactacidotic coma
- D. Dyscirculatory coma
- E. Hypoglycemic coma

72. 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. B_{12} and folate deficiency anemia
- B. Iron deficiency anemia
- C. Hemolytic anemia
- D. Aplastic anemia
- E. Chronic hepatitis

73. A 44-year-old woman complains of general weakness, drowsiness, palpitations, dry skin, and reduced working ability. Objectively, she has normal-colored skin, pulse — 72/min., blood pressure — 125/80 mm Hg, the thyroid gland is diffusely enlarged to the II degree, dense, mobile, and painful. Ultrasound reveals

decreased echogenicity, non-homogeneity of the echo structure, thickening of the gland capsule. Blood test shows that T4 levels are decreased, TSH levels are increased, and the levels of antibodies to thyroperoxidase and anti-microsomal antibodies are significantly increased. What is the most likely diagnosis in this case?

- A. Autoimmune thyroiditis
- B. Diffuse toxic goiter, II degree
- C. Thyroid cancer
- D. Subacute thyroiditis
- E. Diffuse euthyroid goiter, II degree

74. Examination of a 14-year-old tall boy detected arachnodactyly, pectus carinatum deformity of the chest, kyphoscoliosis, flat feet, valgus deformity of the feet, myopic astigmatism, enophthalmos, mitral valve prolapse, aortic root enlargement, and positive thumb and wrist sign. What is the most likely diagnosis in this case?

- A. Marfan syndrome
- B. Homocystinuria
- C. Ehlers-Danlos syndrome
- D. Beals syndrome
- E. Trisomy 8

75. A 22-year-old woman is agitated, her behavior is abnormal, her consciousness is clouded. She has a history of type 1 diabetes for the last 4 years with the labile course. She receives insulin therapy in the dose of 54 units per 24 hours. Objectively, her skin is moist and cold to the touch, she has hyperreflexia and dilated pupils. Her respiration is vesicular. Blood pressure — 140/90 mm Hg, pulse — 88/min. Blood testing revealed glycemia of 2.3 mmol/L and aglucosuria. What is the most likely diagnosis in this case?

- A. Hypoglycemic coma
- B. Ketoacidotic coma
- C. Hyperosmolar coma
- D. Lactacidotic coma
- E. Acute cerebrovascular accident

76. A patient complains of a fever of 39°C, chills, headache, difficulty sleeping, and poor appetite. Objectively, on the back surface of the neck, there is a large, purple-cyanotic, sharply painful, dense infiltrate. In the center of the infiltrate, there are several openings, through which thick yellow-green pus is being discharged. What is the most likely diagnosis in this case?

- A. Carbuncle
- B. Furuncle
- C. Abscess
- D. Erysipelas
- E. Hidradenitis

77. A 68-year-old woman has been hospitalized with complaints of headache in the occipital region, marked dyspnea at rest that becomes worse when lying down, and dry cough. Objectively, the woman is in an orthopneic position, acrocyanosis is observed. Over the lungs, weakened vesicular breathing can be heard with medium and fine vesicular wet crackles in the lower segments. The heart sounds are weakened, gallop rhythm is observed. Pulse — 102/min., blood pressure — 210/110 mm Hg. The liver protrudes 2 cm from under the edge of the costal arch and is tender during palpation. There are edemas on the lower legs. What drugs should be used to provide emergency aid for this patient?

- A. Nitroglycerin, furosemide intravenously
- B. Ceftriaxone, lazolvan (ambroxol) intravenously
- C. Magnesium sulfate intravenously, furosemide intramuscularly
- D. Labetalol intravenously, furosemide intramuscularly
- E. Levofloxacin intravenously, ambroxol orally

78. On the second day after a thyroidectomy, the patient presents with seizures, "numbness" and sensation of "crawling ants" in her hands and feet, and positive Chvostek and Trousseau signs. What complication has developed in the patient?

- A. Hypoparathyroidism
- B. Hypothyroidism
- C. Thyrotoxic crisis (thyroid storm)
- D. Laryngeal nerve injury
- E. Residual manifestations of thyrotoxicosis

79. A 63-year-old woman for the last 5 weeks presents with progressing painless jaundice, skin itching, weight loss of 10 kg, and acholia. Positive Courvoisier sign was detected during palpation. What is the most likely diagnosis in this case?

- A. Pancreatic cancer
- B. Viral hepatitis
- C. Liver cancer
- D. Gallbladder cancer
- E. Malaria

80. A 20-year-old woman complains that for the last three years she has been observing a cold feeling in her fingers. Fi-

rst they turn bluish-white and numb and then 5–10 minutes later the skin becomes red and the fingers warm up, which is accompanied by sharp pain. What is the most likely diagnosis in this case?

- A. Raynaud syndrome
- B. Polyneuritis
- C. Arteriosclerosis obliterans
- D. Obliterating endarteritis
- E. Thromboangiitis obliterans (Buerger disease)

81. A 27-year-old patient complains of pain in the symmetrical joints of the hands, fever, and morning stiffness. The disease onset was acute. Laboratory testing detected rheumatoid factor, high titer of C-reactive protein, and high titer of antibodies to citrullinated vimentin. X-ray revealed isolated erosions of interphalangeal joints. What initial basic treatment must be prescribed in this case?

- A. Methotrexate
- B. Celecoxib
- C. NSAIDs
- D. ACE inhibitors
- E. Xanthine oxidase inhibitors

82. An 8-month-old child's examination revealed a loud systolic murmur over the entire cardiac region with an epicenter in the III–IV intercostal spaces to the left of the sternum and a systolic tremor, the second tone over the pulmonary artery is of increased volume. Blood pressure — 110/70 mm Hg. There are no complaints. X-ray shows that the size and shape of the cardiac shadow are without changes. What is the most likely diagnosis in this case?

- A. Ventricular septal defect
- B. Atrial septal defect
- C. Patent ductus arteriosus
- D. Pulmonary artery stenosis
- E. Coarctation of the aorta

83. 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. Urgent electrical cardioversion
- B. Prescription of amiodarone intravenously
- C. Prescription of calcium channel blockers intravenously
- D. Prescription of β -blockers intravenously
- E. Pacemaker implantation

84. A 35-year-old patient complains of weakness, excessive sweating, fatigability, pain in the right side during breathing, and a fever of 38°C . Objectively, the following is observed: respiratory rate — 28/min., pulse — 100/min. The right half of the chest lags behind during the act of breathing. Voice tremor is not conducted on the right. Percussion detects a dull sound, breathing is weakened. The borders of the heart are shifted to the left. Complete blood count: leukocytes — $12 \cdot 10^9/\text{L}$, band neutrophils — 13%, lymphocytes — 13%, ESR — 38 mm/hour. What is the most likely diagnosis in this case?

- A. Exudative pleurisy
- B. Right-sided pneumonia
- C. Lung atelectasis
- D. Infiltrative tuberculosis
- E. Pneumothorax

85. A 20-year-old patient came to a doctor with complaints of a rash that appeared on the skin. Objectively, on the skin of the trunk, arms, and the back of the neck, there is a macular rash with light brown spots 1–3 cm in size that in some places merge together. The results of Balzer test are positive. What is the most likely diagnosis in this case?

- A. Tinea versicolor (Pityriasis versicolor)
- B. Pityriasis rosea
- C. Secondary syphilis
- D. Parapsoriasis
- E. Microbial eczema

86. 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 mmol/L. What is the most likely diagnosis in this case?

- A. Goodpasture syndrome
- B. Acute glomerulonephritis
- C. Wegener's granulomatosis
- D. Hemorrhagic vasculitis
- E. Paraneoplastic nephropathy

87. A 50-year-old man complains of shortness of breath that becomes worse

during physical exertion. The patient's history states that he has been smoking for the last 30 years. Objectively, the following is observed: body temperature — 36.5°C , respiratory rate — 22/min., heart rate — 88/min., blood pressure — 130/85 mm Hg. The chest is barrel-shaped, auscultation detects weakened vesicular respiration with a bandbox resonance over the entire surface of the lungs. What is the most likely diagnosis in this case?

- A. Chronic obstructive pulmonary disease
- B. Bronchiectasis
- C. Pulmonary tuberculosis
- D. Community-acquired pneumonia
- E. Bronchogenic carcinoma

88. 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. Reinfusion
- B. Direct blood transfusion
- C. Indirect blood transfusion
- D. Exchange blood transfusion
- E. Transfusion is not indicated

89. A 17-year-old patient objectively presents with no facial hair growth, gynecomastia, fat deposition on the hips, and a high-pitched voice. The patient is tall due to elongated lower limbs with a relatively short torso. Mental retardation is noted. Sex chromatin was detected in the buccal epithelium. What is the most likely diagnosis in this case?

- A. Klinefelter syndrome
- B. Down syndrome
- C. Edwards syndrome
- D. Patau syndrome
- E. Turner syndrome

90. After being stung by a bee, an 18-year-old patient feels hot and presents with dyspnea and edema of her lip, face, and neck. The patient's breathing is difficult and noisy, the patient has cough. The skin is pale and cold to the touch. Blood pressure — 75/50 mm Hg. Pulse — 98/min., thready. Tachycardia is observed, the heart sounds are muffled and rhythmic. What is the most likely diagnosis in this case?

- A. Anaphylactic shock
- B. Quincke's edema
- C. Urticaria
- D. Hypotonic crisis
- E. Status asthmaticus

91. 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 fibroadenoma
- C. Non-lactational mastitis
- D. Breast abscess
- E. Lipogranuloma

92. A 32-year-old woman complains of marked shortness of breath, dry cough, a fever of 39°C, and excessive sweating. Bacterioscopy of her sputum detected acid-fast bacteria [+]. Mantoux test with 2 tuberculin units resulted in a papule 21 mm in size. X-ray visualizes numerous symmetrically located focal shadows 1–2 mm in size in both lungs. The shadows are low-intensity and have blurry contours. What is the most likely diagnosis in this case?

- A. Miliary pulmonary tuberculosis
- B. Chronic disseminated pulmonary tuberculosis
- C. Sarcoidosis
- D. Focal tuberculosis
- E. Caseous pneumonia

93. When performing a comprehensive assessment of the microclimate at the premises, it is necessary to measure the radiant temperature. What instrument must be used for this purpose?

- A. Black ball thermometer
- B. Mercury thermometer
- C. Alcohol thermometer
- D. Thermograph
- E. Catathermometer

94. A 35-year-old woman complains of frequent, painful, difficult urination, constant urges to urinate, and several drops of blood appearing in her urine at the end of the process. She fell ill suddenly, after overexposure to cold, when the complaints above appeared. Body temperature — 36.6°C. During

palpation, pain is observed in the area of the urinary bladder. Ultrasound shows a small amount of urine in the bladder, the walls of the bladder are edematous and uniformly thickened. Urinalysis detects leukocyturia (30–40 in sight), proteinuria (0.099 g/L), and erythrocytosis (5–7 unchanged erythrocytes). What is the most likely diagnosis in this case?

- A. Acute cystitis
- B. Acute salpingo-oophoritis
- C. Ureterocele
- D. Bladder tumor
- E. Bladder concrement

95. A 75-year-old complains of dyspnea at rest, marked weakness, and arrhythmia. Examination detected abdominal aortic pulsation and a systolic murmur observed distally. Palpation reveals a volumetric formation in the mesogastrium. Blood pressure — 70/40 mm Hg. There is no pulsation over the femoral arteries. Oliguria is observed. What is the most likely diagnosis in this case?

- A. Dissecting aortic aneurysm
- B. Pancreatic cyst
- C. Acute pericarditis
- D. Cardiosclerotic aneurysm
- E. Acute cardiac aneurysm

96. A 26-year-old woman has been married for 5 years. Despite not using contraception and having a regular sex life, she was unable to become pregnant. Her husband has been examined and is fertile. The woman has a history of surgery for diffuse peritonitis at the age of 19. What study must be conducted to determine the cause of her infertility?

- A. Hysterosalpingography or laparoscopy
- B. Study of sex steroids and gonadotropins, folliculometry
- C. Functional diagnostics tests
- D. Hysteroscopy with assessment of the functional state of the endometrium
- E. Kimographic perturbation of the fallopian tubes

97. A 32-year-old patient complains of pain in the left leg, observed for a year, with intermittent limping after walking 50–100 meters and periodical nocturnal pain. Objectively, the left leg is pale and cold. Arterial pulsation is absent in the left lower leg. What is the most likely diagnosis in this case?

- A. Obliterating endarteritis
- B. Leriche syndrome
- C. Raynaud syndrome
- D. Aortic embolism
- E. Aortic thrombosis

98. Throughout the last month a 2-month-old baby had paroxysms of irritability, restlessness, and crying that start for no apparent reason. Such episodes occur during the feeding or immediately after. Noticeable relief often occurs after defecation. The duration of the episodes is approximately three hours a day. Between the episodes, the child is calm, has a good appetite, the increase in body weight is physiological. What is the most likely diagnosis in this case?

- A. Baby colic
- B. Functional dyspepsia
- C. Lactase deficiency
- D. Functional constipation
- E. Infant dyschezia

99. A pregnant woman at 32 weeks of gestation with the risk of preterm labor undergoes a treatment to prevent fetal respiratory distress syndrome. What medicine was she prescribed?

- A. Dexamethasone
- B. Gynipral (Hexoprenaline)
- C. Progesterone
- D. Oxytocin
- E. Misoprostol

100. A district center is being supplied with water from an interlayer water-bearing stratum with high levels of calcium and magnesium salts. What is the optimal method of water treatment that should be applied before pumping the water into the distribution network?

- A. Softening
- B. Desalination
- C. Decontamination
- D. Ozonation
- E. Sedimentation

101. A 17-year-old boy has been diagnosed with Prasad's syndrome. It is characterized by short stature, sexual underdevelopment, enlargement of the liver and spleen, and iron-deficiency anemia. This health condition is caused by the insufficient content of a certain microelement in the diet. Name this microelement.

- A. Zinc
- B. Iron
- C. Copper
- D. Iodine
- E. Selenium

102. Examination of a 4-day-old baby detected vesicles with seropurulent content on the neck, back of the head, and buttocks. The patient's condition is satisfactory, the child is active, all newborn reflexes can be fully induced, the umbilical cord is at the stage of mummification, the umbilical region is normal. What is the most likely diagnosis in this case?

- A. Vesiculopustulosis
- B. Neonatal pemphigus
- C. Miliaria
- D. Phlegmon
- E. Epidermolysis bullosa

103. A 32-year-old woman, gravida 1, at the term of 38 weeks complains of irregular spastic pain in her lower abdomen and lumbar region. The pain is observed for 2 days, the patient did not sleep well at night. External obstetric examination detected increased tone of the uterus; the fetus is in the longitudinal lie, position I, occiput anterior; the fetal head is mobile and located above the entrance to the lesser pelvis. Vaginal examination detects that the cervix is up to 2.5 cm, tilted backwards, unevenly softened, the external os is open to 0.5 cm, the internal os is closed. What is the most likely diagnosis in this case?

- A. Pathological preliminary period
- B. Discoordinated labor activity
- C. Secondary weakness of labor activity
- D. Primary weakness of labor activity
- E. Precursors of childbirth

104. A 12-year-old girl became acutely ill with a fever of 38.5°C and a rash appearing on her skin. Objectively, her condition is of moderate severity, she has hepatosplenomegaly, fine punctate rash and maculopapular rash on the flexor surfaces of her limbs, lateral surfaces of the trunk, and lower abdomen. Demarcated bluish-pink coloring is observed on her hands and feet. What is the most likely diagnosis in this case?

- A. Pseudotuberculosis
- B. Scarlet fever
- C. Infectious mononucleosis
- D. Chickenpox
- E. Measles

105. A 57-year-old man complains of a pain in his chest, dyspnea during physi-

cal exertion, excessive sweating, constant subfebrile body temperature, and cough that produces blood-streaked sputum. He has been smoking for approximately 40 years (2 packs a day) and says that he frequently has "pneumonias". Survey chest X-ray shows a triangular shadow in the middle lobe of the right lung. One of the apices of the shadow points towards the lung root. Cardiac and mediastinal shadows are displaced towards the affected area. What is the most likely diagnosis in this case?

- A. Cancer of the right lung
- B. Pneumoconiosis
- C. Right-sided pleuropneumonia
- D. Tuberculosis of the right lung
- E. Chronic bronchitis

106. A 54-year-old woman complains of a fogged vision in her right eye, rainbow circles in her vision field, headache, and nausea. Within the last month she twice experienced a similar condition, but back then all the signs eventually disappeared and her sight was restored. Currently, all the signs have been persisting for over 2 days. Objectively, the patient has eyelid edema, congestive injection of the eyeball, corneal opacity, shallow anterior chamber of the eye, and dilated pupil that is unresponsive to the light. Her intraocular pressure is 48 mm Hg. What is the most likely diagnosis in this case?

- A. Prolonged acute attack of glaucoma
- B. Keratitis
- C. Iridocyclitis
- D. Iritis
- E. Cyclitis

107. A 58-year-old patient complains of profuse macrohematuria with discharge of shapeless blood clots and stranguria. Macrohematuria was not accompanied by pain and dysuria and first appeared 5 months ago for no apparent reason. After a few days the bleeding stopped on its own. What is the most likely diagnosis in this case?

- A. Bladder tumor
- B. Concrement in the bladder
- C. Bladder diverticulum
- D. Acute cystitis
- E. Renal tumor

108. A 30-year-old woman has a history of three spontaneous miscarriages and one premature childbirth. Examination revealed a positive reaction to anticardiolipin antibodies and lupus anticoagulant. What is the most likely diagnosis in this

case?

- A. Antiphospholipid syndrome
- B. Stein-Leventhal syndrome
- C. Hemorrhagic syndrome
- D. Sheehan syndrome
- E. Testicular feminization syndrome

109. A 34-year-old woman with previously normal menstrual function developed irregular cycles that are anovulatory according to functional diagnostic tests. Her breasts are painful to palpation and secrete milk (galactorrhea). What study must be conducted to establish the patient's diagnosis?

- A. Measuring the prolactin level
- B. Ultrasound of the lesser pelvis
- C. Progesterone test
- D. CT scan of the brain
- E. Measuring the gonadotropin levels

110. After semolina was introduced into the diet of a 1-year-old child, the child for 2 months has been presenting with decreased appetite, irritability, loss of body mass, and loss of previously learned skills. The feces are copious and foul-smelling. The skin is pale and dry, the hair is brittle. The abdomen is distended, the limbs are thin. Stool test shows high levels of fatty acids. What is the most likely diagnosis in this case?

- A. Coeliac disease
- B. Mucoviscidosis
- C. Lactase deficiency
- D. Functional diarrhea
- E. Irritable bowel syndrome

111. A certain statistical method can be used to study the relation between the duration of smoking and the frequency of malignant lung neoplasms being detected. What method of statistical analysis should be used in this study?

- A. Correlation analysis
- B. Direct standardization
- C. Comprehensive health assessment
- D. Dynamic analysis
- E. Normalization of strongly intensive quantities

112. A 13-year-old girl complains of pain in the area of her heart, palpitations, feeling hot, dizziness, weakness. These complaints appeared 2 months ago, the girl lost 4 kg of weight, her performance at school became worse, and she developed sleep problems. Objectively, she is tearful and irritable, presents with finger tremor, increased moisture of her skin, and reduced tissue turgor.

Heart rate — 104/min. Palpation detects dense and painless thyroid gland that is enlarged to a third-degree goiter. What is the most likely diagnosis in this case?

- A. Diffuse toxic goiter
- B. Vegetative-vascular dysfunction
- C. Rheumatic chorea
- D. Endemic goiter
- E. Non-rheumatic carditis

113. A 19-year-old girl complains of weakness, moderate headache, and sore throat when swallowing. She has been ill for 3 days already. Objectively, her body temperature is 38.2°C . Generalized lymphadenopathy, signs of tonsillopharyngitis, and moderate hepatosplenomegaly are observed. Complete blood count detected 35% of atypical mononuclear cells. What study should she be referred for, to verify the diagnosis?

- A. Blood testing for *IgManti* — *VCAEBV*
- B. Blood testing for *IgManti* — *CMV*
- C. Blood testing for *IgManti* — *HHV* — 6
- D. Blood testing for *IgManti* — *HHV* — 7
- E. Blood testing for total antibodies to HIV

114. A 65-year-old man was diagnosed with hypertension and ischemic heart disease and prescribed pharmacotherapy. Two weeks later, he consulted a doctor about edemas on his lower legs. Examination detected no signs of diseases with the course that includes edematous syndrome. A side effect of the medication is suspected. What drug has such a side effect?

- A. Amlodipine
- B. Atorvastatin
- C. Ramipril
- D. Acetylsalicylic acid
- E. Bisoprolol

115. A 20-year-old man complains of headache, general weakness, and face edema that appears in the morning. Eighteen days earlier he had a case of acute pharyngitis. Objectively, his skin is pale, edema is observed under his eyes. Heart rate — 60/min., blood pressure — 185/100 mm Hg. The sign of costovertebral angle tenderness (percussion test in the lumbar region) is negative on both sides. Urinalysis shows the following: color — dirty-red, protein — 4.5 g/L, altered erythrocytes — 40–45 in sight, leukocytes — 5–6 in sight. 24-hour diuresis is 400 mL. What is the most likely diagnosis in this case?

- A. Acute glomerulonephritis
- B. Acute pyelonephritis
- C. Systemic lupus erythematosus
- D. Urolithiasis
- E. Renal amyloidosis

116. A 45-year-old patient complains of abdominal pain and discomfort that occur in emotionally straining situations. Objectively, no changes were detected in the gastrointestinal tract. The complaints first arose over 10 years ago against the background of a severe alcohol poisoning. The patient has been repeatedly visiting gastroenterologists, who were unable to detect any significant changes. The prescribed therapy was ineffective. What is the most likely diagnosis in this case?

- A. Somatoform autonomic dysfunction
- B. Functional dyspepsia
- C. Chronic alcoholism
- D. Organic brain disorder
- E. —

117. A 16-year-old boy developed dizziness. Objectively, the following is observed: heart rate — 35/min., blood pressure — 85/45 mm Hg. The borders of the heart are not expanded. The heart sounds are sonorous and clear. ECG revealed that P waves are not associated with QRS complexes, dissociation and different rhythm of the atria and ventricles is accompanied by a varying location of the P wave in relation to the QRST complex. What is the most likely diagnosis in this case?

- A. Complete atrioventricular block (third degree)
- B. Atrioventricular block (second degree)
- C. Atrioventricular dissociation
- D. Extrasystole
- E. Sinus bradycardia

118. A study was conducted to establish the connection between obesity and myocardial infarction in nurses. For several years, the frequency of new cases of myocardial infarction in the groups and changes in body mass index were recorded and compared. What type of epidemiological study was used?

- A. Cohort study
- B. Cross-sectional study
- C. Case-control study
- D. Description of case series
- E. Experimental study

119. 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. Osteoarthritis
- B. Rheumatoid arthritis
- C. Ankylosing spondyloarthritis
- D. Gout
- E. Reactive arthritis

120. A 45-year-old patient complains of constant headache, pain in the heart and knee joints. Three years ago the patient was bitten by a tick and ring-shaped erythema appeared on the skin at the site of the bite. Objectively, the patient has acrodermatitis, bilateral pyramidal insufficiency, and coordination disorders. What is the most likely diagnosis in this case?

- A. Neuroborreliosis
- B. Neurosyphilis
- C. Viral encephalitis
- D. Ischemic encephalopathy
- E. Multiple sclerosis

121. A routine examination of a 22-year-old woman at week 30 of her pregnancy detected isolated bacteriuria twice in her urine. The pregnancy course is without pathology. Specify the further tactics of managing this pregnant woman.

- A. Prescription of ampicillin
- B. Phytotherapy
- C. Dynamic monitoring
- D. Prescription of ciprofloxacin
- E. Physiotherapy

122. A 35-year-old man complains of cough and shortness of breath during physical exertion. This health condition has been observed for the past 4 years. The patient has been working at a foundry for the last 14 years, where the concentration of quartz dust in the air of the workshop was 4 times higher than the maximum permissible concentration. Auscultation detected weakened respiration. Chest X-ray revealed emphysema and fine macular shadows in all lung fields. What is the most likely diagnosis in this case?

- A. Silicosis
- B. Chronic bronchitis
- C. COPD
- D. Pulmonary tuberculosis
- E. Asbestosis

123. A 20-year-old patient came to a doctor with complaints of general weakness, increased body temperature, swelling and pain in the joints, a rash on the lower legs. Chest X-ray revealed enlarged internal thoracic lymph nodes. What is the most likely diagnosis in this case?

- A. Sarcoidosis
- B. Lymphogranulomatosis
- C. Lung cancer
- D. Pulmonary tuberculosis
- E. Mediastinitis

124. A patient came to a doctor with complaints of enlarged cervical and axillary lymph nodes and heaviness in the left hypochondrium. During palpation, the lymph nodes are soft, painless, not fused together. Splenomegaly is observed. Complete blood count: leukocytes — $70 \cdot 10^9/L$, lymphocytes — 80%, Gumprecht shadows. What is the most likely diagnosis in this case?

- A. Chronic lymphocytic leukemia
- B. Lymphogranulomatosis
- C. Non-Hodgkin lymphoma
- D. Acute leukemia
- E. Burkitt lymphoma

125. During the medical examination of a patient, the doctor noted a pericorneal injection of the vessels in the sclera of the eyes (a "violet-blue corolla"), conjunctivitis, cheilosis, angular stomatitis, hypertrophic glossitis. What vitamin is deficient in this case, causing such clinical presentation in the patient?

- A. Riboflavin
- B. Thiamine
- C. Pyridoxine
- D. Cyanocobalamin
- E. Niacin

126. A 35-year-old woman came to a doctor with complaints of shortness of breath, deteriorated vision ("a haze before her eyes"), double vision, strabismus, nystagmus, markedly dry mouth, nasal voice, difficulty swallowing, muscle weakness, and abdominal distension. According to her diet history, 20 hours ago she was eating canned meat and home-cooked fish. What is the most likely diagnosis in this case?

- A. Botulism
- B. Staphylococcal intoxication
- C. Foodborne toxicoinfection
- D. Foodborne mycotoxicosis
- E. Food poisoning of chemical origin

127. A 50-year-old woman has been hospitalized with complaints of palpitations, irregular cardiac activity, dizziness, and shortness of breath that occurred in the morning. During the examination, the following is observed: the patient's condition is severe, her skin is pale, her limbs are cold. Pulse — 150/min., of poor volume, blood pressure — 80/50 mm Hg. The heart sounds are weakened, arrhythmia is observed. ECG revealed missing P wave, f-waves, and varying RR intervals. What type of heart rhythm disorder has developed in the patient?

- A. Atrial fibrillation
- B. Extrasystole
- C. Supraventricular tachycardia
- D. Ventricular tachycardia
- E. Ventricular fibrillation

128. A woman complains of a severe pain in her throat on the left, difficult swallowing and mouth opening, elevated body temperature, and generally feeling unwell. She was provisionally diagnosed with acute pharyngitis. Examination detects a trismus of the masticatory muscles, the left tonsil is displaced towards the midline, the anterior palatal arch is infiltrated and protruding. The regional lymph nodes on the left are enlarged and painful to palpation. What is the most likely diagnosis in this case?

- A. Peritonsillar abscess
- B. Lacunar tonsillitis
- C. Tonsillar tumor
- D. Scarlet fever
- E. Infectious mononucleosis

129. A 5-year-old child had acute onset of the disease with a fever of 39.5°C , marked chills, weakness, lethargy, skin pallor, and headache. Eight hours later a hemorrhagic rash developed on the skin of the buttocks and legs. The child is sluggish, the body temperature has dropped, blood pressure — 80/40 mm Hg, respiratory rate — 28–30/min., diuresis is decreased. What is the most likely diagnosis in this case?

- A. Meningococemia
- B. Hemorrhagic vasculitis (Henoch-Schonlein purpura)
- C. Thrombocytopenic purpura
- D. Reye syndrome
- E. Measles

130. A 34-year-old woman after rapidly changing her position from horizontal to vertical suddenly paled, fell down, her skin became moist, her limbs are cold, her

pupils are dilated. Her pulse is rapid and thready, blood pressure — 50/25 mm Hg. What emergency condition has developed in the patient?

- A. Collapse
- B. Coma
- C. Ventricular fibrillation
- D. Morgagni-Adams-Stokes syndrome
- E. Shock

131. After a hemorrhagic stroke, the patient undergoes a course of massage, physical therapy, and classes with a speech therapist to restore speech and movements of the left arm and leg. What type of prevention includes such rehabilitation procedures?

- A. Tertiary prevention
- B. Primary prevention
- C. Secondary prevention
- D. Individual prevention
- E. Public prevention

132. Forensic autopsy of the body of a 59-year-old man, who died suddenly at home without signs of violent death, shows pink skin and mucosa, bright red blood, and bright red plethoric internal organs. Forensic toxicology blood testing detected 1.44 ‰ of ethanol in his blood and carboxyhemoglobin levels of 55%. What substance has caused the poisoning that became the cause of death in this case?

- A. Carbon monoxide
- B. Alcohol
- C. Potassium cyanide
- D. Aniline
- E. Arsenic

133. A 32-year-old woman complains of general weakness, headache, excess body weight, pain in her bones, and irregular menstrual cycle. Objectively, her skin is dry and cyanotic. Purple-cyanotic stretch marks are observed in the area of her abdomen, shoulders, and thighs. Fat deposition is mainly observed on the face, neck, and trunk. Blood pressure — 165/100 mm Hg. Blood testing revealed glucose of 7.2 mmol/L and elevated ACTH levels. X-ray of the bones revealed signs of osteoporosis. What is the most likely diagnosis in this case?

- A. Cushing disease
- B. Cushing syndrome
- C. Pathological climacteric syndrome
- D. Essential hypertension
- E. Alimentary obesity

134. A 45-year-old patient complains of

a skin rash on the trunk and upper and lower limbs. The patient associates the development of this rash with a recently experienced stressful situation. Objectively, there are inflammatory papules on the skin, which have a tendency to spread and are covered with loose silvery-yellow scales. When elements of the rash are scraped, the "stearin spot" symptom is observed. The patient's genealogical history is normal. What is the most likely diagnosis in this case?

- A. Psoriasis
- B. Lichen ruber planus
- C. Dermatophytosis
- D. Eczema
- E. Allergic dermatitis

135. 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. Gastrointestinal bleeding
- B. Intestinal obstruction
- C. Pleural empyema
- D. Portal hypertension
- E. Ulcer malignization

136. A neonatologist examines a full-term baby born from the second pregnancy, second full-term delivery, with the body weight of 3980 g. During the delivery, primary weakness of the labor activity was observed and obstetric assistance was used. Objectively, the right hand is adducted to the trunk and rotated, there are no movements in the shoulder and elbow joints, the "doll's arm" sign is observed, the hand is in the position of palmar flexion. The baby breastfeeds, suckles actively. What is the most likely diagnosis in this case?

- A. Duchenne-Erb paresis
- B. Dejerine-Klumpke paresis
- C. Total brachial plexus paresis
- D. Humerus fracture on the right
- E. Dislocation of the right shoulder

137. The history of a 70-year-old patient states that the disease onset was approximately six months ago. According to her

relatives, her memory of current events was sharply deteriorating, in particular, she was forgetting the way home when returning from the store and started experiencing difficulties while performing her usual daily activities. The memory of past events was retained. Signs of semantic and amnesic aphasia were observed. Echolalia is periodically noted. The patient is in a low mood and has slight anxiety. She has a history of craniocerebral trauma and had diabetes mellitus for approximately 15 years. What is the most likely diagnosis in this case?

- A. Alzheimer's disease
- B. Involutional depression
- C. Encephalitis
- D. Brain tumor
- E. Vascular dementia

138. 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. Paronychia
- B. Subcutaneous felon
- C. Cutaneous felon
- D. Subungual felon
- E. Erysipeloid

139. A 45-year-old woman complains of discomfort during reading, redness of the edges of her eyelids, and white foamy discharge in the corners of her palpebral fissures, observed for the past two months. Objectively, the following is observed: hyperemia and thickening of the loose eyelid margins, widened excretory ducts of the glands in the eyelid cartilage. What is the most likely diagnosis in this case?

- A. Meibomian blepharitis
- B. Blennorrhoeal conjunctivitis
- C. Chronic canaliculitis
- D. Acute dacryoadenitis
- E. Adenoviral conjunctivitis

140. A 30-year-old woman complains of sudden reddening of her right eye, photophobia, a feeling of sand in the eye, and lacrimation that appeared 3 days ago, as well as rhinitis and a fever of $38^{\circ}C$. Objectively, she has marked edema of the eyelids, hyperemia of the conjunctiva of transitional folds, and fine punctate hemorrhages in the conjunctiva of the upper eyelid. A small amount of mucopurulent secretion is observed. What

is the most likely diagnosis in this case?

- A. Bacterial conjunctivitis of the right eye
- B. Adenoviral conjunctivitis of the right eye
- C. Herpetic conjunctivitis of the right eye
- D. Tuberculous conjunctivitis of the right eye
- E. Allergic conjunctivitis of the right eye

141. Examination detected 24-hour proteinuria of 2.2 g in a 30-year-old woman. Biopsy revealed changes in the glomerular capillary walls in the shape of wire loops. What morphological form of kidney damage is indicated by the biopsy results?

- A. Diffuse lupus glomerulonephritis
- B. Mesangial glomerulonephritis
- C. *IgA* nephropathy
- D. Membranous glomerulonephritis
- E. Nephrosclerosis

142. A 14-year-old girl complains of a maculopapular rash along her body, a fever of 38.5°C, and a sore throat. Objectively, she has enlarged cervical and submandibular lymph nodes and hyperemic oropharyngeal mucosa, her tongue and tonsils are coated with white plaque. Palpation revealed hepato- and splenomegaly. What is the most likely diagnosis in this case?

- A. Infectious mononucleosis
- B. Scarlet fever
- C. Viral hepatitis A
- D. Enterovirus infection
- E. Chronic myeloid leukemia

143. An 11-year-old girl complains of pain in the joints, a fever of 38°C, and weakness. She fell ill 5 days ago. Objectively, she has a maculopapular rash on the bridge of her nose and on her face, the joints are not changed, the heart sounds are weakened. Blood pressure — 100/80 mm Hg. Complete blood count: erythrocytes — $2.6 \cdot 10^{12}/L$, leukocytes — $3.7 \cdot 10^9/L$, platelets — $12 \cdot 10^9/L$, ESR — 45 mm/hour, CRP (+++). General urinalysis: protein — 0.063 g/L, erythrocytes — 15–20 in sight, leukocytes — 10–14 in sight. What is the most likely diagnosis in this case?

- A. Systemic lupus erythematosus
- B. Dermatomyositis
- C. Acute rheumatic fever
- D. Polyarteritis nodosa
- E. Hemorrhagic vasculitis

144. A 6-month-old child started refusing to eat and developed an acute fever of 39°C, vomiting, and short-term tonic-

clonic seizures. Objectively, the child is sluggish and sleepy. Nuchal rigidity, Kernig's signs, and a bulging and tense fontanel are observed. What laboratory and instrumental study is necessary to confirm the diagnosis in this case?

- A. Lumbar puncture
- B. Serum biochemistry profile
- C. Neurosonography
- D. Brain MRI
- E. Skull X-ray

145. On the fifth day of life, a newborn presents with excessive abdominal distension with contouring of intestinal loops on the anterior abdominal wall. Meconium passed after the enema. Abdominal X-ray shows dilation of the loops of the large intestine. What is the most likely diagnosis in this case?

- A. Hirschsprung's disease
- B. Stenosis of the ileum
- C. Ladd's syndrome
- D. Portal hypertension
- E. Intussusception

146. A woman has been hospitalized into a gynecological inpatient department with complaints of pain in her lower abdomen and dizziness. Her last menstruation was 6 weeks ago. Objectively, her skin is pale, blood pressure — 80/60 mm Hg, pulse — 94/min. The sign of peritoneal irritation in the lower segments is positive. Bimanual examination shows that the uterus is slightly enlarged, the appendages are enlarged on the right and painful. Promtov's sign is positive. What is the most likely diagnosis in this case?

- A. Interrupted ectopic pregnancy
- B. Ovarian apoplexy
- C. Acute adnexitis
- D. Ruptured cyst of the right ovary
- E. Pedicle torsion of a cyst of the right ovary

147. A patient complains of pain, photophobia, lacrimation, and impaired vision in the right eye. The visual acuity of the right eye is 0.5, cannot be corrected, the visual acuity of the left eye is 1.0. Objectively, the palpebral fissure is narrowed in the right eye, pericorneal injection of the eyeball is observed. Precipitates were detected on the posterior corneal surface. The pupil is narrowed, the response to light is slowed. Floating opacities are observed in the anterior part of the vitreous body. The fundus is normal. What is the most likely diagnosis in this case?

- A.** Acute iridocyclitis
- B.** Acute keratitis
- C.** Acute glaucoma attack
- D.** Bacterial conjunctivitis
- E.** Posterior uveitis

148. A 62-year-old woman undergoes treatment for bilateral gonarthrosis and has been regularly taking diclofenac sodium for 2 years. During the last six months she notes elevations of her blood pressure to 160/100 mm Hg. X-ray of the knee joints shows decreased height of the inter-articular space, marginal growths on the articular surfaces, and epiphyseal osteoporosis. General urinalysis shows the following: specific gravity — 1010, erythrocytes — 5–6 in sight, leukocytes — 10–12 in sight, casts (cylinders) — 0–1 in sight, glucose — not detected, protein — 0.22 g/L. Fasting plasma glucose — 6.3 mmol/L. What is the most likely cause of the changes observed in the general urinalysis?

- A.** Tubulointerstitial nephritis
- B.** Hypertensive nephropathy
- C.** Diabetic nephropathy
- D.** Urolithiasis
- E.** Chronic glomerulonephritis

149. A 38-year-old patient complains of cramping abdominal pain, nausea, vomiting, abdominal distension, inability to pass gas, constipation. The patient had a recent

surgery for appendicitis in his medical history. On palpation, the abdomen is painful in all its segments and tense. A splashing noise, unclear signs of peritoneal irritation, and hyperperistalsis are observed in the patient. What is the most likely diagnosis in this case?

- A.** Adhesive intestinal obstruction
- B.** Diffuse peritonitis
- C.** Diverticular colitis
- D.** Colon cancer
- E.** Peptic ulcer disease of the stomach

150. A 38-year-old patient complains of a fever of 39°C, chills, profuse sweat, and dull lumbar pain that radiates into the suprapubic region. Objectively, muscle tension is observed in the lumbar region, percussion test in the lumbar region provokes painful sensations on both sides. Complete blood count shows leukocytosis of $12 \cdot 10^9/L$. General urinalysis revealed the following: proteinuria — 0.7 g/L, leukocyturia — 15–20 in sight, bacteriuria of over 100,000 bacteria per 1 mL of urine. What is the most likely diagnosis in this case?

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