

# Sample test questions

## **Krok 2** *Medicine*



1. Disease onset was acute. A child developed general weakness, pain in the joints, and fever. Later these signs became accompanied by itching skin rash manifested as erythematous spots 2-5 mm in size. The rash gradually turned hemorrhagic. Large joints are painful and swollen; pain attacks periodically occur in the paraumbilical area; there are signs of intestinal hemorrhage. What is the most likely diagnosis?

- A. Hemorrhagic vasculitis (Henoch-Schonlein purpura)
- B. Scarlet fever
- C. Hemorrhagic meningoencephalitis
- D. Streptococcal impetigo
- E. Rheumatism

2. 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. Acute urticaria
- B. Hemorrhagic vasculitis (Henoch-Schonlein purpura)
- C. Urticaria pigmentosa
- D. Psoriasis
- E. Scabies

3. A district doctor has diagnosed one of his patients with dysentery. What accounting document reflects this type of morbidity?

- A. Urgent report
- B. Statistical report
- C. Report on a major non-epidemic disease
- D. Certificate of temporary disability
- E. Control card of a patient registered for regular check-ups

4. A 39-year-old man, a battery attendant, suddenly developed weakness, loss of appetite, nonlocalized colicky abdominal pains, and nausea. Objectively, his skin is gray; there is a pink-gray stripe on his gums; the abdomen is soft and sharply painful. Blood test detected erythrocytes with basophilic stippling and anemia. The patient has a history of peptic ulcer disease of the stomach. Constipations occur each 3-4 days. What is the most likely provisional diagnosis?

- A. Saturnism (lead poisoning)
- B. Acute appendicitis
- C. Perforation of gastric ulcer
- D. Acute cholecystitis
- E. Chronic alcoholism

5. A 58-year-old man complains of weakness and tumor-like formations that appeared on the anterior surface of his neck and in the inguinal region. Palpation detects

soft painless mobile cervical and inguinal lymph nodes up to 2 cm in diameter. The liver protrudes by 2 cm from the edge of the costal margin, the lower splenic pole is at the umbilical level. In blood: erythrocytes -  $3.5 \cdot 10^{12}/L$ , Hb- 88 g/L, leukocytes -  $86 \cdot 10^9/L$ , band neutrophils - 1%, segmented neutrophils - 10%, lymphocytes - 85%, eosinophils - 2%, basophils - 0%, monocytes - 2%, erythrocyte sedimentation rate - 15 mm/hour, Gumprecht shadows. What is the most likely diagnosis?

- A. Chronic lymphocytic leukemia
- B. Lymphocytic leukemoid reaction
- C. Acute leukemia
- D. Chronic myeloid leukemia
- E. Lymphogranulomatosis

6. Employees work in conditions of high dust concentration. Certain chemical (silicon dioxide content) and physical properties of dust aerosols contribute to the development of occupational dust-induced diseases. What is the main physical property of dust aerosols?

- A. Dispersion
- B. Magnetization
- C. Electric charge
- D. Solubility
- E. Ionization

7. A 20-year-old patient complains of a severe headache, double vision, weakness, fever, irritability. Objectively: body temperature is  $38.1^{\circ}C$ , the patient is reluctant to contact, sensitive to stimuli. There are ptosis of the left eyelid, exotropia, anisocoria S>D, and pronounced meningeal syndrome. On lumbar puncture the cerebrospinal fluid flowed out under a pressure of 300 mm Hg, the fluid is clear, slightly opalescent. 24 hours later there appeared a fibrin film. Protein - 1.4 g/L, lymphocytes - 600 per  $mm^3$ , glucose - 0.3 mmol/L. What is the provisional diagnosis?

- A. Tuberculous meningitis
- B. Meningococcal meningitis
- C. Lymphocytic (Armstrong's) meningitis
- D. Syphilitic meningitis
- E. Mumps meningitis

8. A 52-year-old woman has been suffering for 2 years from dull, occasionally exacerbating pain in her right subcostal area, occurring after eating high-fat foods, bitter taste in her mouth in the morning, constipations, and flatulence. Objectively she is obese, her body temperature is  $36.9^{\circ}C$ ; there is a coating on the root of her tongue; the abdomen is moderately distended and painful in the area of gallbladder projection. What examination

would be the most helpful for diagnosis-making?

- A. Ultrasound
- B. Duodenal probe
- C. Cholecystography
- D. Duodenoscopy
- E. Liver scanning

9. A 3-month-old child with signs of rickets presents with positive Chvostek, Trousseau, and Maslov signs. One day ago the parents witnessed a cyanotic attack in their child - the child broke into a cold sweat, the eyes bulged, and respiratory arrest occurred. One minute later the child drew in a loud breath and the child's condition normalized again. What is the cause of the described signs of the disease?

- A. Decrease of blood calcium levels
- B. Increase of blood calcium levels
- C. Decrease of blood phosphorus levels
- D. Increase of blood phosphorus levels
- E. Metabolic acidosis

10. A man works in casting of nonferrous metals and alloys for 12 years. In the air of working area there was registered high content of heavy metals, carbon monoxide, and nitrogen. During periodic health examination the patient presents with asthenovegetative syndrome, sharp abdominal pains, constipations, pain in the hepatic area. In urine: aminolevulinic acid and coproporphyrin are detected. In blood: reticulocytosis, low hemoglobin level. Such intoxication is caused by:

- A. Lead and lead salts
- B. Tin
- C. Carbon monoxide
- D. Nitric oxide
- E. Zinc

11. A 48-year-old woman complains of disturbed menstrual cycle: her periods last for 7-9 days and are excessively profuse throughout the last half-year. She notes occasional hot flashes in her head, insomnia, irritability, and headaches. Her skin is of normal color. Blood pressure - 150/90 mm Hg, pulse - 90/min., rhythmic. The abdomen is soft and painless. Bimanual examination shows no uterine enlargement, the appendages cannot be detected. The vaginal fornices are free. What is the most likely diagnosis?

- A. Climacteric syndrome
- B. Premenstrual syndrome
- C. Adrenogenital syndrome
- D. Stein-Leventhal syndrome (polycystic ovary syndrome)
- E. Uterine myoma

12. A 23-year-old woman came to the gynecological clinic. She complains of pain, itching, and burning in her vulva, general weakness, indisposition, elevated body temperature up to  $37.2^{\circ}\text{C}$ , and headache. On examination in the vulva there are multiple vesicles up to 2-3 mm in diameter with clear contents against the background of hyperemia and mucosal edema. Make the provisional diagnosis:

- A. Genital herpes infection
- B. Primary syphilis
- C. Papillomavirus infection
- D. Vulvar cancer
- E. Cytomegalovirus infection

13. A woman with the pregnancy term of 8 weeks complains of elevated temperature up to  $37.6^{\circ}\text{C}$ , 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. Abortion
- B. Prescription of antibacterial therapy
- C. Prescription of antiviral therapy
- D. Treatment of incipient abortion
- E. Prescription of hemostatic therapy

14. The 5-year-old child has been ill for 2 weeks. Cough attacks developed first and were then followed by reprises. During coughing the child's face turns red and cervical veins bulge. The cough attacks induce vomiting. X-ray shows intensified bronchial pattern. Blood test: leukocytes -  $16 \cdot 10^9/\text{L}$ , lymphocytes - 72%, erythrocyte sedimentation rate - 4 mm/hour. What is the most likely diagnosis?

- A. Pertussis
- B. Obstructive bronchitis
- C. Pneumonia
- D. Adenovirus infection
- E. Foreign body

15. On laboratory investigation of a pork sample there is 1 dead trichinella detected in 24 sections. This meat should be:

- A. Handed over for technical disposal
- B. Allowed for sale with no restrictions
- C. Processed and sold through public catering network
- D. Processed for boiled sausage production
- E. Frozen until the temperature of  $-10^{\circ}\text{C}$  is reached in the deep layers, with subsequent exposure to cold for 15 days

**16.** A 48-year-old woman was delivered into the surgical unit with wounds in her thigh. On examination the wound surface has a dirty-gray coating with unpleasant sweet smell. The wound content resembles a raspberry jelly. Skin tissues around the wound are glossy and turgid. Palpation reveals moderate crepitation in the tissues. What bacteria is the most likely to cause such inflammation?

- A.** Anaerobic clostridial
- B.** Anaerobic non-clostridial
- C.** Streptococci
- D.** Staphylococci
- E.** Blue pus bacillus

**17.** A 25-year-old woman was brought into the gynecological department with profuse bloody discharge from her genital tracts. She is 12 weeks pregnant, the pregnancy is planned. Within the last 3 days she was experiencing pains in her lower abdomen that eventually started resembling cramps, she developed bleeding. Her skin is pale, pulse - 88/min., blood pressure - 100/60 mm Hg, body temperature - 36.8°C. Vaginal examination: the uterus size corresponds to 11 weeks of gestation, the cervical canal allows inserting 1 finger and contains fragments of the fertilized ovum, the discharge is bloody and profuse. What is the most likely diagnosis?

- A.** 12-week pregnancy, spontaneous abortion in progress
- B.** 12-week pregnancy, threatened spontaneous abortion
- C.** Disturbed menstrual cycle, hyperpolymenorrhea
- D.** Disturbed menstrual cycle, amenorrhea
- E.** Full-term pregnancy, term labor

**18.** 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. Blood test: Hb- 108 g/L, thrombocytopenia. Anamnesis states that similar condition was observed 1 year ago. Make the diagnosis:

- A.** Thrombocytopenic purpura
- B.** Hemophilia
- C.** Ulcerative bleeding
- D.** Rectal tumor
- E.** Nonspecific ulcerative colitis

**19.** A 20-year-old woman, gravida 2, para 1 has been in labor for 4 hours. Her condition is satisfactory. Moderately painful contractions occur every 3 minutes and last

for 35-40 seconds. The waters have not burst yet. The fetus is in longitudinal position. Fetal heartbeats are 136/min., clear and rhythmic. Major segment of the fetal head is engaged to the pelvic inlet. Vaginal examination shows smooth cervix of 6 cm, amniotic sac is intact, sagittal suture is in the left oblique diameter, occipital fontanel is on the right near the symphysis pubis. What stage of the labor is it?

- A.** Active phase of the first stage of normal labor
- B.** Latent phase of the first stage of normal labor
- C.** The second stage of normal labor
- D.** Precursors of childbirth
- E.** Preliminary stage

**20.** A 12-year-old girl after a case of respiratory infection developed dyspnea at rest, paleness of skin. Heart rate is 110/min., BP is 90/55 mm Hg. Heart sounds are muffled. Borders of relative heart dullness: right - the parasternal line, upper - the III rib, left - 1,0 cm outwards from the midclavicular line. Make the provisional diagnosis:

- A.** Infectious myocarditis
- B.** Functional cardiopathy
- C.** Somatoform autonomic dysfunction
- D.** Hypertrophic cardiomyopathy
- E.** Exudative pericarditis

**21.** A 72-year-old man with pneumonia complains of marked dyspnea, chest pain, severe cough with expectoration,  $t^{\circ}$  is 39.5-40°C, no urination for the last 24 hours. Objectively the patient is conscious. Respiratory rate is 36/min. Percussion sound is dull over the right lower pulmonary lobe; on auscultation there is bronchial respiration and numerous moist crackles. Blood pressure is 80/60 mm Hg. Heart rate is 120/min. Heart sounds are muffled, there is tachycardia. What tactics should the family doctor choose for the management of this patient?

- A.** Hospitalization into the intensive care unit
- B.** Outpatient treatment
- C.** Treatment in the day patient facility
- D.** Hospitalization into the pulmonology unit
- E.** Hospitalization into the neurology unit

**22.** 3 hours after a trauma, a young man developed bradycardia of 46/min., anisocoria D>S, hemi-hyperreflexia S>D, hemihyesthesia on the left, and a convulsive disorder. The character of this process needs to be clarified. What method of examination will be the most accurate for

this purpose?

- A. Head CT
- B. Skull X-ray
- C. Electroencephalography
- D. Echoencephalography
- E. Lumbar puncture

23. 2 hours after eating unknown mushrooms, a 28-year-old man sensed a decrease in his mobility and deterioration of his ability to focus. This condition was then followed by a state of agitation and aggression. On examination he is disoriented and his speech is illegible. 4 hours later he developed fetor hepaticus and lost his consciousness. What syndrome can be observed in this patient?

- A. Acute hepatic failure
- B. Hepatolienal syndrome
- C. Portal hypertension
- D. Cholestatic syndrome
- E. Cytolytic syndrome

24. During regular medical examination a lyceum student presents with signs of cheilitis that manifests as epithelial maceration in the area of lip seal. The lips are bright-red, with single vertical cracks covered with brown-red scabs. These clinical signs are most likely caused by insufficient content of the following in the diet:

- A. Riboflavin
- B. Ascorbic acid
- C. Retinol
- D. Thiamine
- E. Calciferol

25. 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 kidney
- B. Dystopia of the right kidney
- C. Hypoplasia of the right kidney
- D. Agenesis of the right ureter
- E. Ectopic right ureteral orifice

26. A 13-year-old girl for a month has been complaining of fatigability, dull pain in her right subcostal area, abdominal distension, and constipations. Abdominal palpation reveals positive Kehr, Murphy, and Ortner signs, while Desjardins and Mayo-Robson points are painless. Total bilirubin is 14.7  $\mu\text{mol/L}$ , predominantly indirect, ALT- 20 U/L, AST- 40 U/L, amylase - 6.3  $\text{mmol/L}$ .

Echocholecystography shows practically no contraction of the gallbladder. Make the provisional diagnosis:

- A. Hypokinetic biliary dyskinesia
- B. Hyperkinetic biliary dyskinesia
- C. Chronic pancreatitis
- D. Acute pancreatitis
- E. Chronic hepatitis

27. A surgery unit received a person with an incised stab wound on the upper third of the right thigh. Examination detects an incised stab wound 3.0x0.5x2.0 cm in size on the inner surface of the upper third of the right thigh. Bright-red blood flows from deep within the wound in a pulsing stream. Characterize this type of bleeding:

- A. Arterial
- B. Venous
- C. Parenchimatous
- D. Capillary
- E. Mixed

28. A 22-day-old infant developed subcutaneous red nodes from 1.0 to 1.5 cm in size on the scalp; later the nodes suppurated. Temperature increased up to 37.7°C, intoxication symptoms appeared, regional lymph nodes enlarged. Complete blood count: anemia, leukocytosis, neutrocytosis, raised ESR. What diagnosis will you make?

- A. Pseudofurunculosis
- B. Pemphigus
- C. Vesiculopustulosis
- D. Scalp phlegmon
- E. -

29. A 25-year-old man was hospitalized with complaints of pain in his lower abdomen and right lumbar area that appeared one hour ago. The patient's general state is moderately severe. Body temperature - 38.2°C, heart rate - 102/min. The tongue is dry. The abdomen is painful on deep palpation in the right iliac area and in the Petit triangle. Aure-Rozanov and Gabay signs are positive. Make the provisional diagnosis:

- A. Acute appendicitis
- B. Right-sided renal colic
- C. Cecal tumor
- D. Intestinal obstruction
- E. Acute cholecystitis

30. A 32-year-old woman complains of general weakness, low-grade fever persisting for 4 months, lumbar pain, and dysuria. Anamnesis includes frequent acute respiratory diseases, overexposure to cold, low-calorie diet, a case of pulmonary tuberculosis in childhood. Clinical urine

analysis: pH- 4.8, leukocyturia, hematuria. Complete blood count: leukocytosis, lymphocytosis, raised ESR. Urography concludes: dilatation of renal pelvis and calyceal system of both kidneys, foci of calcification in the projection of right kidney parenchyma. What is the most likely diagnosis?

- A. Nephrotuberculosis
- B. Right renal cyst
- C. Right renal carcinoma
- D. Acute glomerulonephritis
- E. Chronic pyelonephritis

31. A full-term newborn (born with the body weight of 3900 g at gestational age of 39 weeks) on the first day of his life developed respiratory disturbances: dyspnea, arrhythmic respiration, cyanosis attacks. On examination there is paradoxical respiration observed and left side of the chest lags behind in the act of breathing. On auscultation the respiration is weakened in the lungs on the left. Neurologist diagnosed the patient with left-sided Erb-Duchenne palsy. Complete blood count shows no changes. What is the most likely diagnosis?

- A. Left-sided diaphragm paresis
- B. Congenital pneumonia
- C. Left-sided pneumothorax
- D. Respiratory distress syndrome
- E. Transient tachypnea of the newborn

32. A 3-year-old child has been brought to a hospital with complaints of pain in the legs, fever, and loss of appetite. Objectively: pale skin and mucosa, hemorrhagic rash. Lymph nodes are enlarged, painless, dense and elastic, not matted together. Bones, joints, and abdomen are painful. The liver and spleen are enlarged. Hemogram: Hb- 88 g/L, color index - 1.3, platelets -  $80 \cdot 10^9/L$ , leukocytes -  $25.8 \cdot 10^9/L$ , lymphoblasts - 70%, ESR- 52 mm/hour. Make the provisional diagnosis:

- A. Acute leukemia
- B. Thrombocytopenic purpura
- C. Acute rheumatic fever
- D. Infectious mononucleosis
- E. Hemorrhagic vasculitis (Henoch-Schonlein purpura)

33. A 22-year-old postparturient woman on the 12th day after the normal childbirth informs of fever up to  $39^{\circ}C$  for the last 3 days and pain in her right mammary gland. The right mammary gland is enlarged, hot to touch, tense, hyperemic, and painful. Palpation reveals there a dense infiltration  $8 \times 8$  cm with a fluctuation in its center. What is the most likely diagnosis?

- A. Postpartum period, day 12. Right-sided infiltrative-purulent mastitis
- B. Postpartum period, day 12. Right-sided serous mastitis
- C. Postpartum period, day 12. Right-sided gangrenous mastitis
- D. Postpartum period, day 12. Right-sided phlegmonous mastitis
- E. Postpartum period, day 12. Right-sided lactostasis

34. A 55-year-old woman came to a gynecologist with complaints of leukorrhea and bloody discharge from the vagina after 5 years of menopause. Anamnesis states no pregnancies. Bimanual examination: the uterus and uterine appendages are without changes. During diagnostic curettage of the uterine cavity the physician scraped off a sample of encephaloid matter. What is the most likely diagnosis in this case?

- A. Endometrial carcinoma
- B. Adenomyosis
- C. Subserous uterine myoma
- D. Cervical carcinoma
- E. Ovarian carcinoma

35. A patient has gradually lost his consciousness. The skin is pale and dry. There is smell of ammonia from the mouth. Respirations are deep and noisy. Heart sounds are muffled, pericardial friction rub is present. Blood pressure is 180/130 mm Hg. Blood test: Hb- 80 g/L, leukocytes -  $12 \cdot 10^9/L$ , blood glucose - 6.4 mmol/L, urea - 50 mmol/L, creatinine - 1200  $\mu\text{mol/L}$ , blood osmolarity - 350 mOsmol/kg  $H_2O$ . No urinary excretion. Make the diagnosis:

- A. Uremic coma
- B. Hyperglycemic coma
- C. Acute renal failure
- D. Acute disturbance of cerebral circulation
- E. Hyperosmolar coma

36. During winter epidemics of influenza caused predominantly by virus A/California/04/2009 (H1N1), on the 2nd day after the disease onset a 30-year-old hospitalized man presented with high fever, dry cough, myalgia, headache, and general weakness. What should be prescribed as an etiotropic treatment in this case?

- A. Neuraminidase inhibitors (oseltamivir)
- B. Antibiotics
- C. Immunoglobulin
- D. Interferon inducers
- E. Acyclovir

37. A 30-year-old woman made an appointment with the family doctor for scheduled vaccination of her 2-year-old

child. What type of healthcare provides such medical services?

- A. Primary healthcare
- B. Emergency aid
- C. Secondary healthcare
- D. Tertiary healthcare
- E. Palliative care

38. An 18-year-old patient always obeys others and adapts his needs to the demands of the people on whom he depends. He excessively defers to their wishes and makes them responsible for his wellbeing, cannot defend his interests and needs support from other people. Such psychic profile has been formed in the childhood, remains unchanged, and hinders adaptation. What psychic disorder is observed in this patient?

- A. Dependent personality disorder
- B. Anxiety (avoidant) personality disorder
- C. Anankastic personality disorder
- D. Markedly accentuated personality
- E. Psychopathy-like state

39. A 45-year-old man with thrombophlebitis of the deep veins in his legs suddenly after physical exertion developed sharp pain in his thorax on the right, dyspnea, and hemoptysis. Objectively his condition is severe; he presents with acrocyanosis, shortening of pulmonary percussion sound on the right, and weakened respiration. Respiration is 30/min., blood pressure is 110/80 mm Hg. ECG shows sinus tachycardia, his heart rate is 120/min., the electrical axis of the heart deviates to the right,  $S_I-Q_{III}$ . What is the most likely diagnosis?

- A. Pulmonary embolism
- B. Community-acquired right-sided pneumonia
- C. Cancer of the right lung
- D. Right-sided exudative pleurisy
- E. Spontaneous pneumothorax

40. An 18-year-old patient complains of skin rash. The patient has been suffering from this condition for 5 years. The first instance of this disease occurred after a car accident. Objectively: the patient presents with a papular rash covered in silvery scales, "thimble" sign (small pits on the nails), affected joints. What is the most likely diagnosis?

- A. Psoriasis
- B. Panaritium
- C. Onychomycosis
- D. Lupus erythematosus
- E. Rheumatism

41. A woman complains of frequent watery

stool (up to 9-10 times per day) with mucus and blood admixtures, dull pain in the hypogastrium, weight loss of 4 kg within the last year. Objectively: malnutrition, dry skin, low turgor, aphthous stomatitis. The abdomen is soft, the sigmoid colon is spastic and painful on palpation. Occult blood test is positive. Fibrocolonoscopy: edema, hyperemia, mucosal granulation, pseudopolyps, small ulcers with irregular edges. Make the diagnosis:

- A. Nonspecific ulcerative colitis
- B. Chronic enterocolitis
- C. Colon cancer
- D. Irritable bowel syndrome
- E. Crohn's disease (regional enteritis)

42. A 48-year-old woman has been hospitalized due to development of tachysystolic atrial fibrillation. She has lost 5 kg of body weight within 2 months. On palpation there is a node in the left lobe of the thyroid gland. What pathology resulted in the development of this condition?

- A. Toxic nodular goiter
- B. Atherosclerotic cardiosclerosis
- C. Chronic thyroiditis
- D. Nontoxic nodular goiter
- E. Autoimmune thyroiditis

43. After a long drive with the window open a man developed a facial asymmetry; he cannot close his right eye, his right nasolabial fold is smoothed out, movements of expression are absent on the right, there is a disturbance of taste sensation in the tongue on the right. No other neurological abnormalities were detected. What disease can be provisionally diagnosed in this case?

- A. Neuropathy of the facial nerve
- B. Neuropathy of the trigeminal nerve
- C. Trigeminal ganglionitis
- D. Neuropathy of the oculomotor nerve
- E. Ischemic stroke

44. 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. Fine-needle aspiration biopsy
- B. Thyroid scintigraphy
- C. Case monitoring
- D. Determine TSH level in the blood
- E. Positron emission tomography (PET)

45. A 19-year-old young man complains of cough with expectoration of purulent sputum in amount of 100 mL per

day, hemoptysis, dyspnea, increased body temperature up to  $37.8^{\circ}\text{C}$ , general weakness, weight loss. The patient's condition lasts for 4 years. Exacerbations occur 2-3 times a year. The patient presents with malnutrition, pale skin, cyanosis of the lips, drumstick (clubbed) fingers. Tympanic percussion sound in the lungs, weakened respiration, and various numerous moist crackles in the lower pulmonary segments on the left can be observed in this patient. In blood: erythrocytes -  $3.2 \cdot 10^{12}/\text{L}$ , leukocytes -  $8.4 \cdot 10^9/\text{L}$ , ESR- 56 mm/hour. On X-ray: lung fields are emphysematous, the left pulmonary root is deformed and dilated. What is the most likely diagnosis?

- A. Multiple bronchiectasis of the left lung
- B. Chronic left-sided pneumonia
- C. Chronic abscess of the left lung
- D. Left-sided pulmonary cystic dysplasia
- E. Suppuration of the cyst in the left lung

46. A 56-year-old woman was diagnosed with stage 2 hypertension of the 2nd degree. She belongs to the group of moderate risk and has bronchial asthma. What group of drugs is **CONTRAINDICATED** to this patient?

- A.  $\beta$ -blockers
- B. Angiotensin-converting enzyme inhibitors
- C. Diuretics
- D. Calcium antagonists
- E. Imidazoline receptor antagonists

47. 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. Multiple rib fractures, hemopneumothorax
- B. Closed diaphyseal femur fracture
- C. Brain concussion
- D. Degloving shin injuries
- E. All injuries are equivalent

48. A 28-year-old man, a teacher, after an emotional stress developed painful muscle spasms in his right hand that occur during writing; now he has to hold the pen between the second and third fingers. He has no problems with typing or writing on the blackboard; no other motor disturbances or neurological pathologies are detected. What is the most likely diagnosis?

- A. Writer's cramp
- B. Cortical agraphia
- C. Parkinsonism
- D. Neuropathy of the right ulnar nerve
- E. Neuropathy of the right radial nerve

49. A 45-year-old man underwent a cardiac surgery one week ago. His general state has been deteriorating since then: dyspnea at rest, retrosternal pain that irradiates to the neck, marked weakness. Objectively his body temperature is hectic. His cardiac borders are expanded, apical beat is weakened. Auscultation detects pericardial friction rub. What is the most likely diagnosis?

- A. Acute pericarditis
- B. Acute cardiac aneurysm
- C. Myocardial infarction
- D. Acute myogenic dilatation of the heart
- E. Pulmonary embolism

50. A 73-year-old woman came to the family physician for one of her regular follow-up examinations. Three months ago she was found to have type 2 diabetes mellitus. She was keeping to her diet and exercise plan and taking phytopreparations. On examination her fasting glucose was within the range of 7.8-8.6 mmol/L, HbA1c - 7.9%. Height - 164 cm, weight - 83 kg. What blood glucose-controlling medicine should she be prescribed first in the course of her pharmacological therapy?

- A. Metformin
- B. Glibenclamide
- C. Glimpiride
- D. Gliclazide
- E. Insulin

51. A 27-year-old man complains of pain in his leg joints, purulent discharge from the eyes, and painful burning sensations during urination. The 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. Chlamydia
- B. Adenovirus
- C. Streptococci
- D. Staphylococci
- E. Candida

52. A child was born at 40 weeks of gestation with the weight of 3700 g. The child's Apgar score is 7/9. The baby was put to breast immediately after birth and suckled actively. On the 3rd day of life the child's weight decreased to 3600 g. What transitory condition is observed in this child?



- A.** Physiological weight loss
- B.** Transient dysbiosis
- C.** Physiological jaundice
- D.** Toxic erythema
- E.** Uric acid infarction

**53.** A 26-year-old man complains of chills, rhinitis, dry cough, and fever up to  $38^{\circ}\text{C}$ . Examination shows him to be in a moderately severe condition; there are small pale pink non-merging spots on the skin of his back, abdomen, and extremities. Palpation reveals enlarged occipital and axillary lymph nodes. No information about vaccination history could be obtained. What is the likely etiology of this disease?

- A.** Rubella virus
- B.** Epstein-Barr virus
- C.** Streptococcus
- D.** Mumps virus
- E.** Meningococcus

**54.** A 19-year-old young man was diving and hit his head on the bottom of the pool. He complains of pain in the neck, his head movements are limited and painful. During examination his head is bowed forward and to the right and the patient supports it with his hands. Palpation detects tense neck muscles and protruding spinous process of the IV cervical vertebra (C4). When pressure is applied to this process and to the head (axial load), the pain intensifies. Make the provisional diagnosis:

- A.** Uncomplicated cervical fracture
- B.** Cervical contusion
- C.** Complicated cervical fracture
- D.** Neck muscle injury
- E.** Spinal root injury

**55.** A 75-year-old man in a severe condition suffers from dyspnea at rest, marked weakness, and arrhythmia. Abdominal aortic pulsation is observed, further on there is a systolic murmur detected. Palpation reveals a volumetric formation in the mesogastrium. Blood pressure is 70/40 mm Hg. There is no pulsation over the femoral arteries. Oliguria is detected. Which diagnosis is the correct one?

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

**56.** The body of a citizen was found at the place of his dwelling. On his face, neck, and hands there were detected irregular-shaped wounds, varying from 2x3 cm to 4x5 cm in size. The skin and underlying tissues are

absent in the wounds. The margins of the wounds are uneven, with major and minor scalloping along the edges and no signs of bleeding. What is the initiating mechanism of these wounds?

- A.** Animal bite wounds
- B.** Pellet gunshot wound
- C.** Local effect of cold
- D.** Blast injury
- E.** Multiple stab and incised wounds

**57.** 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.** Urgent cesarean section
- B.** Repeated dopplerometry next day
- C.** Fetal biophysical profile
- D.** Ultrasound photometry of the fetus
- E.** Labor induction with oxytocin

**58.** A 26-year-old woman was hospitalized into the gynecological department with complaints of body temperature up to  $38.2^{\circ}\text{C}$ , fever, general weakness, and dirty-red blood discharge from her genital tracts. She is hemodynamically stable. Two days ago she underwent a medical abortion on the 8th week of pregnancy. Ultrasound detects the remains of the fertilized egg in her uterine cavity. What are the tactics of the patient management in this case?

- A.** Revision of the uterine cavity with vacuum aspirator. Antibiotic therapy
- B.** Laparotomy. Supravaginal uterine amputation. Abdominal drainage
- C.** Pipelle biopsy
- D.** Uterine cavity treatment with antibiotic solutions
- E.** Laparotomy. Extirpation of the uterus and tubes. Abdominal drainage

**59.** During a regular examination, an 8-year-old girl with type I diabetes mellitus presents with a swelling on the anterior surface of her hip. The swelling is 3 cm in diameter, dense, painless on palpation. The skin over this formation has normal color and temperature. Localization of the swelling matches the place where the girl usually receives her insulin injections. What is the most likely cause of this clinical presentation?

- A.** Development of hypertrophic lipodystrophy
- B.** Development of atrophic lipodystrophy
- C.** Formation of a post-injection abscess
- D.** Formation of a post-injection infiltration
- E.** Allergic response

**60.** 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

**61.** A family doctor performed an external obstetrical examination of a pregnant woman and determined that her uterine fundus is located at the level of the navel. What is the most likely term of pregnancy in this woman?

- A.** 24 weeks
- B.** 8 weeks
- C.** 16 weeks
- D.** 32 weeks
- E.** 40 weeks

**62.** Examination detected vesicles with seropurulent content on the neck, back of the head, and buttocks of an infant on the 4th day of life. 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 area is without any peculiarities. What disease can be suspected?

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

**63.** On the 3rd day after the artificial abortion the woman was hospitalized into the gynecological department in a severe condition with signs of intoxication, abdominal pain, and purulent discharge from the vagina. Objectively, the patient's condition is severe, her body temperature is  $38.8^{\circ}\text{C}$ , pulse is 100/min., blood pressure is 110/70 mm Hg, the uterus is soft, the uterine fundus is located at the level of the navel, there are positive signs of peritoneal irritation. What is the most likely diagnosis?

- A.** Pelviperitonitis
- B.** Acute metroendometritis
- C.** Uterine perforation
- D.** Acute suppurative salpingo-oophoritis
- E.** Ectopic pregnancy

**64.** A 10-year-old boy came to the polyclinic with complaints of stuffy nose. It is known that these signs occur in the child periodically (in spring and autumn). He has a history of atopic dermatitis. The father of the child has bronchial asthma. Objectively, the boy's face is pale and slightly swollen. Respirations are 22/min. Auscultation detects vesicular respiration over the lungs. Rhinoscopy shows swollen and pale nasal mucosa. What disease can be suspected?

- A.** Allergic rhinitis
- B.** Recurrent respiratory disease
- C.** Acute rhinitis
- D.** Acute maxillary sinusitis
- E.** Acute adenoiditis

**65.** A 7-year-old boy after a fall from a height presents with rapid and shallow breathing and cyanotic face. The right half of his thorax is distended and takes no part in the respiration. Percussion detects tympanitis in the affected area, while auscultation detects no breathing there. What pathology is the most likely cause of this clinical presentation? What instrumental examination would be the most informative in this case?

- A.** Right-sided tension pneumothorax. Chest X-ray
- B.** Mediastinitis. Survey X-ray of the chest
- C.** Tension cyst of the right lung. Tracheobronchoscopy
- D.** Airway foreign body. Diagnostic-therapeutic bronchoscopy
- E.** Right-sided hemothorax. Survey X-ray of the chest

**66.** A 9-year-old boy fell off a tree and hit the back of his head. A brief loss of consciousness was observed. The child's condition is satisfactory, he has a headache and vertigo. Skull X-ray scans show a depressed fracture of the occipital bone in the area of the external occipital protuberance. What treatment tactics is indicated for this patient?

- A.** Surgical intervention
- B.** Anti-inflammatory therapy
- C.** Hemostatic therapy
- D.** Lumbar puncture to relieve the pressure
- E.** Complex conservative treatment

**67.** A 57-year-old man, a miner, complains of a pain in his chest, dyspnea on physical

exertion, excessive sweating, constant subfebrile temperature, and cough that produces blood-streaked sputum. He has been smoking for approximately 40 years (2 packs a day) and 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 to the lung root. Cardiac and mediastinal shadows are displaced toward the affected area. Make the provisional diagnosis:

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

68. A 45-year-old man came to the hematologist with complaints of general weakness, elevated body temperature, excessive sweating, enlarged cervical lymph nodes. Objectively, his body temperature is  $37.5^{\circ}\text{C}$ , the skin is pale and dry, the posterior cervical lymph nodes are dense and elastic, up to 2 cm in diameter, mobile. There are no peculiarities in the patient's heart and lungs. Hepatosplenomegaly was detected. What examination is necessary to determine the scope of the pathologic process?

- A. Computed tomography
- B. Abdominal X-ray
- C. Ultrasound of the cervical lymph nodes
- D. Complete blood count
- E. Bone scintigraphy

69. A 54-year-old woman complains of a fogged vision in her right eye, rainbow circles in her vision, 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. Make the diagnosis:

- A. Glaucoma
- B. Keratitis
- C. Iridocyclitis
- D. Iritis
- E. Cyclitis

70. A newborn has a round red formation in the suprapubic region. Examination shows that urine is being discharged in pulses from the two orifices located in the lower part of this formation. Name this developmental anomaly:

- A. Bladder exstrophy
- B. Vesico-umbilical fistula
- C. Bladder diverticulum
- D. Urachal cyst
- E. Bladder agenesis

71. 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. Premenstrual syndrome
- B. Algomenorrhea
- C. Metabolic craniopathy
- D. Diencephalic syndrome
- E. Stein-Leventhal syndrome

72. After semolina was introduced into the diet, a 1-year-old child for 2 months has been presenting with loss of 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, while the limbs are thin. Stool test shows high levels of fatty acids. What is the most likely diagnosis?

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

73. On the 5th day after giving birth a postparturient woman complains of a pain in her left mammary gland and body temperature up to  $38.1^{\circ}\text{C}$ . Examination shows that her mammary gland is enlarged and painful on palpation, the nipple is edematous and has fissures, the upper external quadrant of the gland is hyperemic. Name the measures that would have prevented the development of this complication in the patient:

- A. Feeding on demand, expression of breast milk, prevention of nipple fissures
- B. Feeding on schedule
- C. Constant expression of breast milk
- D. Feeding no longer that 10 minutes through an overlay
- E. Stop breastfeeding when fissures appear

74. A 2.5-year-old child is ill for the second day. The onset of the disease was associated with the temperature up to  $37.8^{\circ}\text{C}$ , a single bout of vomiting, and watery diarrhea up to 5 times per day. During the second day, vomiting occurred twice, body temperature is  $38.0^{\circ}\text{C}$ , the child has low appetite, watery diarrhea continues. The treatment of the

child should start with the following:

- A. Prescribe oral rehydration
- B. Prescribe nifuroxazide
- C. Prescribe ceftriaxone
- D. Prescribe polymyxin
- E. Prescribe loperamide

**75.** A 17-year-old girl has been suffering from hepatic cirrhosis for 3 years. Lately her periods of excitation have been intermittent with depression, she does not sleep enough. Objectively, her condition is severe, the girl is sluggish, gives one-word responses, has tremor in her extremities, her skin is icteric, with single hemorrhagic rashes. Name the likely complication of her disease:

- A. Hepatic encephalopathy
- B. Kidney failure
- C. Bipolar affective disorder
- D. Sepsis
- E. Reye syndrome

**76.** A 19-year-old girl complains of moderate itching and hair loss on her head. Objectively, on the skin of her occipital region there is a single round erythematous focus 3 cm in diameter with clear margins. Asbestos-like scales can be observed on the surface of the lesion. The hair in the focus of the lesion is broken off at the length of 6-8 mm. What is the most likely diagnosis?

- A. Microsporia
- B. Trichophytosis
- C. Psoriasis
- D. Seborrhea
- E. Scabies

**77.** A 43-year-old man complains of facial edema, dyspnea, and difficult swallowing that appeared 3 hours after he was stung by an insect. Objectively, the skin of his eyelids, cheeks, and lips is acutely hyperemic and edematous. What medicines should he be prescribed for emergency aid?

- A. Glucocorticosteroids
- B. Antihistamines
- C. Muscle relaxants
- D. Nonsteroidal anti-inflammatory drugs
- E. Diuretics

**78.** A 68-year-old woman with congestive heart failure and left ventricular ejection fraction of <40% receives the following pharmacotherapy scheme: ramipril, torasemide, bisoprolol, clopidogrel, and digoxin. During one of her regular examinations, frequent polymorphic ventricular extrasystoles were detected in the patient. What medicine should be removed from her therapy scheme?

- A. Digoxin
- B. Torasemide
- C. Ramipril
- D. Clopidogrel
- E. Bisoprolol

**79.** A 23-year-old woman with type 1 diabetes mellitus during the 2nd week of community-acquired pneumonia developed nausea and vomiting. In the evening she has lost her consciousness and was hospitalized. Objectively, the patient's skin is pale and dry. Her respiration is loud, the tongue is dry, with brown deposit. Her heart rate is 129/min., blood pressure is 85/50 mm Hg. Palpation of the patient's abdomen provokes no response. The liver is +3 cm. Acetone test is markedly positive, blood glucose is 26 mmol/L. Make the provisional diagnosis:

- A. Ketoacidotic coma
- B. Hepatic coma
- C. Lactacidemic coma
- D. Hyperosmolar coma
- E. Infectious toxic shock

**80.** A 17-year-old girl complains of a pain in her knee and ankle joints and body temperature up to 39°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. Acute rheumatic fever
- B. Reactive arthritis
- C. Rheumatoid arthritis
- D. Erythema nodosum
- E. Systemic scleroderma

**81.** A 45-year-old man has been suffering from ankylosing spondylitis for 15 years. For the last 3 years he has been noticing facial swelling and edemas of the limbs. Objectively, he assumes a "beggar's" position. X-ray shows "bamboo spine" changes in the thoracic and lumbar segments. Heart ultrasound shows aortic regurgitation. Complete blood count: Hb-106 g/L; leukocytes -  $8.9 \cdot 10^9/L$ ; ESR- 40 mm/hour. Daily proteinuria - 9.6 grams per 24 hours. Blood creatinine - 230  $\mu\text{mol/L}$ . What is the cause of kidney failure in this case?

- A. Renal amyloidosis
- B. Medicine side effects
- C. Pyelonephritis
- D. Concomitant heart disease
- E. Urolithiasis

**82.** A 20-year-old man suffers from headache, general weakness, and face edema that appears in the morning. 18 days earlier he had a case of tonsillitis. Objectively, his skin is pale, there are edema under his eyes. Heart rate is 60/min., blood pressure is 185/100 mm Hg. The sign of costovertebral angle tenderness (punch sign in the lumbar region) is negative. Urinalysis: color of "meat slops", protein - 4.5 g/L, altered erythrocytes - 40-45 in the vision field, leukocytes - 5-6 in the vision field. 24-hour diuresis is 400 mL. What is the most likely diagnosis?

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

**83.** A 45-year-old woman undergoes an inpatient treatment. She complains of elevated body temperature up to 39.0°C, pain in her right lumbar area, turbid urine with blood. CT scan shows an area of low density within the parenchyma, no difference between the cortical and medullary layers, and increased density of the perinephric fat due to edema. What is the diagnosis?

- A. Pyelonephritis
- B. Glomerulonephritis
- C. Renal carcinoma
- D. Renal abscess
- E. Paraneuritis

**84.** A patient is 45 years old. He was referred for a consultation with a psychiatrist due to complaints of abdominal pain and discomfort that occur in emotionally straining situations. Objectively, no changes of the gastrointestinal tract were detected. The complaints emerged over 10 years ago against the background of severe alcohol poisoning. The patient has been repeatedly visiting gastroenterologists, who were unable to find any significant changes in the patient. The prescribed therapy was ineffective. What is the likely conclusion?

- A. Somatoform autonomic dysfunction
- B. Functional dyspepsia
- C. Chronic alcoholism
- D. Organic brain disorder
- E. No disorders

**85.** A 30-year-old woman complains of itching skin, predominantly in the evening and at night. The condition lasts for 2 weeks already. On the skin of the interdigital folds, mammary glands, abdomen, buttocks, and thighs there are numerous fine papular and papulovesicular rashes located in pairs, excoriations. There is no rash on the face and neck. Similar rash is observed in the husband of the patient. What is the most likely diagnosis?

- A. Scabies
- B. Neurodermatitis
- C. Eczema
- D. Herpes
- E. Epidermophytosis

**86.** What should be prescribed as secondary prevention drugs for a patient with atrial fibrillation after an ischemic stroke caused by cardiac embolism?

- A. Oral anticoagulants
- B.  $\beta$ -blockers
- C. Aspirin or clopidogrel
- D. Calcium antagonists
- E. Nootropics

**87.** After the pregnant woman's waters broke, it was noted that they are significantly contaminated with meconium. Upon birth, the baby is not breathing, remains inert, the skin is cyanotic and covered in meconium, heart rate is 98/min. What resuscitation measures should be taken after the baby is born?

- A. Direct laryngoscopy, intubation, sanitation of the trachea
- B. Sanation of the upper respiratory tracts with a rubber balloon
- C. Tactile stimulation of the newborn
- D. Give adrenaline intravenously
- E. Artificial pulmonary ventilation with a mask and Ambu bag

**88.** A 16-year-old boy developed dizziness. His heart rate is 35/min., blood pressure is 85/45 mm Hg. Heart borders are not enlarged. Heart sounds are loud and clear. ECG shows P waves disconnected from QRS complexes, dissociation and different rhythm of atria and ventricles is accompanied by varying location of P wave in relation to QRST complex. This presentation is the most characteristic of the following disease:

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

**89.** 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  $38^{\circ}\text{C}$ . 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.** Hydradenitis
- B.** Carbuncle
- C.** Furuncle
- D.** Folliculitis
- E.** Lymphadenitis

**90.** A 58-year-old woman has type 2 diabetes mellitus that is compensated with diet and metformin. She prepares for cholecystectomy. Objectively, her height is 164 cm, weight is 90 kg, heart rate is 72/min., blood pressure is 130/80 mm Hg. Her abdomen is soft, painful in the right subcostal region. The liver is not enlarged. Fasting glucose - 6.2 mmol/L. Glycated hemoglobin - 6.5%. What further tactics of sugar-lowering therapy should be chosen in this case?

- A.** Prescription of a short-acting insulin
- B.** Prescription of an insulin mixture
- C.** Prescription of a long-acting insulin
- D.** Continue the present scheme of therapy
- E.** Prescription of glurenorm (gliquidone)

**91.** A 56-year-old woman has been working as a disinfectant for 19 years. She complains of general weakness, nausea, bitter taste in her mouth, heavy sensation in her right subcostal area, and rapid fatigability. Objectively, her body temperature is  $37.1^{\circ}\text{C}$ , the sclerae are icteric, and the liver is enlarged. Total bilirubin is 40  $\mu\text{mol/L}$ . What is the likely diagnosis?

- A.** Occupational toxic hepatitis
- B.** Chronic cholecystitis
- C.** Acute cholecystitis
- D.** Biliary dyskinesia
- E.** Chronic pancreatitis

**92.** During examination of a patient, the doctor detected in him disorders of the eyes (hemeralopia, Bitot's spots), skin and skin appendages, mucosa, and gastrointestinal tract. He was provisionally diagnosed with Prasad's syndrome. What causes the development of this pathology?

- A.** Zinc deficiency
- B.** Vanadium deficiency
- C.** Iron deficiency
- D.** Manganese deficiency
- E.** Copper deficiency

**93.** A 65-year-old man underwent a left hemicolectomy due to a malignant tumor in the descending colon. On the 4th day after the surgery he developed pain and edema in his left shin. The Homans sign is positive on the left. What postoperative complication developed in this patient?

- A.** Acute postoperative thrombosis of the deep veins in the left shin
- B.** Acute postoperative thrombosis of the popliteal artery on the left
- C.** Acute disturbance of the cerebral blood flow
- D.** Acute postoperative lymphangitis of the left shin
- E.** Postoperative allergic reaction

**94.** 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.** Foreign body aspiration
- B.** Acute laryngotracheitis
- C.** Pertussis
- D.** Pneumonia
- E.** Acute obstructive bronchitis

**95.** What modern organizational method can provide the patients in the remote settlements with timely access to quality medical aid and such medical services as consulting, diagnostics, and treatment, especially in the situations when time and distance are crucial?

- A.** Telemedicine
- B.** Mobile communication
- C.** Field medical teams
- D.** Air medical services
- E.** Ambulance services

**96.** 40% of the workers, who polish the art glass, using an abrasive disk, and have a long record of employment, are diagnosed with ulnar neuritis, 21% - with vegetative polyneuritis, and 12% - with vegetomyofascitis of the upper limbs. These pathologies are associated with the following harmful factor:

- A.** Vibration
- B.** Microclimate
- C.** Dust
- D.** Noise
- E.** Electromagnetic field

**97.** A 45-year-old woman complains of increasing body weight throughout the last year. Examination revealed moon face syndrome, brittle hair, hirsutism, stretch marks on the abdomen, and

disproportionally thin limbs. The patient's height is 162 cm, her body weight is 94 kg, her body mass index is 35.8 kg/m<sup>2</sup>. What type of obesity is it?

- A. Dysplastic
- B. Android
- C. Gynoid
- D. Alimentary-constitutive
- E. Cerebral

98. A 45-year-old man with a history of myocardial infarction developed a brief attack of palpitations, accompanied by the sensations of lack of air, fear, and vertigo. His blood pressure is 90/60 mm Hg. ECG during the attack shows extended QRS complex (0.13 seconds) with heart rate of 160/min., discordant shift of ST segment and T wave, dissociation of atrial and ventricular rhythm. What disturbance of cardiac rhythm is it?

- A. Paroxysmal ventricular tachycardia
- B. Paroxysmal supraventricular tachycardia
- C. Ventricular fibrillation
- D. Atrial fibrillation
- E. Frequent ventricular extrasystoles

99. 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. Aldosteroma
- B. Androsteroma
- C. Pheochromocytoma
- D. Cushing's disease
- E. Cushing's syndrome

100. An 8-day-old boy was delivered to the hospital on the second day after the onset of the disease. His parents complain of his fussiness, regurgitation, body temperature up to 38.5°C, red skin with infiltration in the lumbar area. His medical history has no peculiarities. The child is in the severe condition, inert, pale, suckles poorly. In the lumbar area, on the sacrum and buttocks there is a tense infiltration with hyperemic

and cyanotic areas and with a soft spot 8x7 cm in its center. The stool is 10 times in 24 hours, with green and mucous admixtures. What is the most likely diagnosis?

- A. Phlegmon of the newborn
- B. Adiponecrosis
- C. Erysipelas
- D. Hemangioma
- E. Congenital soft-tissue tumor

101. 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. Hashimoto's thyroiditis
- B. Thyroid cancer
- C. Acute thyroiditis
- D. Endemic goiter
- E. Midline cervical cyst

102. A patient was brought into the pulmonology department with complaints of inspiratory dyspnea and dry cough at the highest point of inhalation. On examination the following is observed: pale skin, cyanotic lips, "Hippocratic fingers". Auscultation detects Velcro-type crackles (like opening a Velcro fastener). X-ray shows a "ground glass opacity" pattern. What is the most likely diagnosis?

- A. Idiopathic pulmonary fibrosis
- B. Exogenous allergic alveolitis
- C. Pulmonary histiocytosis X
- D. Hand-Schuller-Christian disease
- E. Idiopathic pulmonary hemosiderosis

103. A 35-year-old woman had acute onset of the disease that started with fever up to 39.0°C and cough. 3 days later her dyspnea at rest increased up to 35/min. Downward from her right shoulder-blade angle, percussion detects a dull sound. No vocal fremitus, respiratory sounds cannot be auscultated. What is the treatment tactics?

- A. Pleural tap
- B. Antibiotic therapy
- C. Artificial lung ventilation
- D. Oxygen therapy
- E. Physiotherapy

104. Children from a certain township present with brittle teeth, malocclusion, dental enamel erosions, and dental pigmentation that looks like yellow-brown

spots. What is the likely cause of this presentation?

- A. High levels of fluorine in water
- B. Low levels of fluorine in water
- C. High levels of sulfates in water
- D. Low levels of sulfates in water
- E. High levels of nitrates

**105.** A 48-year-old man came to a doctor with complaints of vomiting that brings no relief and a burning pain in his left subcostal region that irradiates to the left lumbar region. These signs appeared after a meal. The Ortner's and Mayo-Robson's signs are positive. In the blood: leukocytosis and increased ESR. In the urine: elevated diastase levels. Make the diagnosis:

- A. Chronic pancreatitis in the exacerbation stage
- B. Chronic gastritis in the exacerbation stage
- C. Renal colic
- D. Gastric ulcer perforation
- E. Chronic cholecystitis in the exacerbation stage

**106.** 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. Premature detachment of the normally positioned placenta
- B. Uterine rupture
- C. Rupture of the umbilical vessels
- D. Partial placenta previa
- E. Cervical rupture

**107.** A 65-year-old man with acute anterior myocardial infarction developed an asphyxia attack. Examination detected diffuse cyanosis. In the lungs there are numerous heterogeneous wet crackles. Heart rate is 100/min. Blood pressure is 120/100 mm Hg. What complication occurred in this patient?

- A. Pulmonary edema
- B. Cardiogenic shock
- C. Pulmonary embolism
- D. Ventricular septal rupture
- E. Hypertensive crisis

**108.** A woman came to the gynecologist to plan her pregnancy. She was advised to increase her intake of the products rich in folic acid, particularly soy beans, bread made of coarsely ground flour, fruits, leafy green vegetables. Such changes in her diet will work toward the prevention of:

- A. Non-closure of the neural tube in the fetus
- B. Rickets
- C. Non-closure of the fontanel
- D. Iron-deficiency anemia in the pregnant woman
- E. Polyhydramnios

**109.** 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 procainamide
- C. Prescription of digoxin
- D. Prescription of amiodarone
- E. Prescription of bisoprolol

**110.** A woman complains of a severe pain in her throat on the left, difficult swallowing and mouth opening, elevated body temperature, and general malaise. The onset of the disease was 4 days ago after a case of tonsillitis. Examination detects a trismus of the masticatory muscles, the left tonsil is displaced toward the midline, the anterior palatal arch is infiltrated and protruding. The regional lymph nodes on the right are enlarged and painful on palpation. Make the diagnosis:

- A. Peritonsillar abscess
- B. Lacunar tonsillitis
- C. Tonsillar tumor
- D. Acute pharyngitis
- E. Infectious mononucleosis

**111.** A 5-year-old child had acute onset of the disease that manifested in body temperature up to 39.5°C, marked chills, weakness, inertness, skin pallor, and headache. 8 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 is 80/40 mm Hg, respirations are 28-30/min., diuresis is decreased. Make the provisional diagnosis:



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

**112.** A 35-year-old woman came to the family doctor with complaints of profuse menstruations that last up to 10 days. Gynecological examination shows that the uterine cervix is without changes, the uterus is in *anterflexio*, has normal size, is mobile and painless. The uterine appendages on the both sides are without peculiarities. The family doctor made the provisional diagnosis of abnormal uterine bleeding. What instrumental method of examination needs to be performed first to diagnose this pathology?

- A. Transvaginal ultrasound
- B. Transabdominal ultrasound
- C. Culdoscopy
- D. Laparoscopy
- E. Colposcopy

**113.** A dweller of the northern Dnieper area, a fisherman, for the last several days has been complaining of a discomfort in his right subcostal region, periodical episodes of diarrhea, intermittent with constipations, frequent skin rashes. Abdominal ultrasound shows enlarged liver and pancreatic head. Make the provisional diagnosis:

- A. Opisthorchiasis
- B. Ornithosis
- C. Onchocerciasis
- D. Trichinellosis
- E. Taeniasis

**114.** A 21-year-old man was hospitalized on the 2nd day of the disease. His general condition is severe, body temperature is 39°C. On his skin there are numerous irregular-shaped hemorrhagic elements. The diagnosis of meningococemia was made. The next day his body temperature suddenly decreased, blood pressure was 80/40 mm Hg, pulse was 120/min. Acrocyanosis was detected. What complication did the patient develop?

- A. Acute adrenal insufficiency
- B. Acute heart failure
- C. Acute liver failure
- D. Cerebral coma
- E. Acute hemorrhage

**115.** In a pediatric clinic, located in a rural area, there are 9 children, who simultaneously fell ill. The following signs were detected: low physical activity, acrocyanosis of the nasolabial triangle and

fingertips, mucosal cyanosis, tachycardia, dyspnea. It was determined that all the sick children were fed with a formula that was dissolved in the water taken from a dug well. Laboratory analysis revealed high levels of methemoglobin in the blood of the children. These signs can be caused by increased content of a certain element in the water. Name this element:

- A. Nitrates
- B. Selenium
- C. Methylmercury
- D. Sulfates
- E. Lead

**116.** An unconscious patient was delivered to a hospital by an ambulance. Objectively, his body temperature is 39°C, he presents with convulsions and red dry skin. It is known that the patient works as a stoker in the boiler room. What is the likely diagnosis?

- A. Heat stroke
- B. Acute food poisoning
- C. CO poisoning
- D. Acute viral respiratory infection
- E. Hypertensive urgency

**117.** 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. The pulse is rapid and thready, blood pressure is 50/25 mm Hg. What condition has likely developed in the patient?

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

**118.** 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 several randomized clinical trials
- B. Data obtained from one randomized clinical trial
- C. Data obtained from many non-randomized trials
- D. Expert consensus
- E. Case-control studies

**119.** For 20 years the role of excessive weight in ischemic heart disease development among the working age male population over 40 was studied. It was determined that overweight men developed ischemic heart disease more often. What

type of epidemiological study is it?

- A. Cohort study
- B. Case-control study
- C. Experimental study
- D. Case report
- E. Case series report

**120.** The director of a medical facility draws up a financial plan for the next year. To improve the economic well-being of his establishment, he decided to increase the amount of medical services provided. How will it change the fixed cost per unit of service?

- A. Decrease
- B. No changes
- C. Increase
- D. Fluctuate
- E. There is no correlation between these variables

**121.** A 23-year-old woman without visible cause developed a conflicting behavior at her workplace. She accused the management of underestimating her, claimed that she can be a deputy director, because she speaks four languages, is very attractive, and can make useful connections for the company. She has been dressing extravagantly, flirting with her colleagues, and singing loudly in her office. In fact, she has only the training of a computer operator and speaks no foreign languages. What is the likely clinical diagnosis?

- A. Manic episode
- B. Depressive disorder
- C. Schizophrenia
- D. Mild mental retardation
- E. Epilepsy

**122.** You witnessed a car accident. When examining the place of the accident you noticed a man of about 30 years, who was hit by the car. He is unconscious. On his neck on the left there is a profuse hemorrhage with bright-red blood. How to stop this hemorrhage?

- A. Digital occlusion, Mikulich method
- B. Apply a neck brace
- C. Maximal hyperextension of the neck
- D. Put him in a stable position
- E. Apply a plaster cast

**123.** A 37-year-old woman received an occupational trauma that resulted in a severe vision impairment. Now she needs to be trained for another occupation. What type of rehabilitation should the doctor choose for the patient in this case?

- A. Occupational rehabilitation
- B. Medical rehabilitation
- C. Social rehabilitation
- D. Target rehabilitation
- E. Psychological rehabilitation

**124.** A 34-year-old multipara was brought to the labor ward with regular labor activity. Her pelvic size is 26-29-32-22 cm. Vaginal examination shows 6 cm cervical dilation, the amniotic sac is unbroken. The fetus is in the breech presentation, with buttocks pressed to the entrance into the lesser pelvis. The promontory cannot be reached, no exostoses. Fetal heart rate is 140/min., expected fetal weight is 2800 g. What labor tactics should be chosen?

- A. Delivery through the natural birth canal
- B. External obstetric version of the fetus
- C. Classic combined external-internal version of the fetus
- D. Urgent cesarean section
- E. Fetal extraction from the pelvic end

**125.** A 6-year-old girl complains of body temperature up to 39°C, rhinitis, dry cough, dyspnea. She has been presenting with these signs for 5 days already. On examination her condition is of moderate severity. Her dyspnea is of mixed genesis. Respirations are 28/min., pulse is 120/min. Percussion produces a dull sound in the right lower segments; in the same area auscultation detects weakened respiration and fine vesicular wet crackles; coarse respiration can be detected on the left. Make the provisional diagnosis:

- A. Right-sided community-acquired pneumonia
- B. Acute obstructive bronchitis
- C. Stenosing laryngotracheitis
- D. Acute simple bronchitis
- E. Acute bronchiolitis

**126.** A patient underwent suture plication of the perforated duodenal ulcer. On the 3rd day after the operation he started producing a large amount of discharge from the abdominal drain tube. The discharge contains bile and has high amylase levels. What complication occurred in the patient?

- A. Suture incompetence of the ulcerative defect
- B. Hemorrhage from the ulcer
- C. Acute postoperative pancreatitis
- D. Acute cholecystitis
- E. Early postoperative adhesive obstruction

**127.** A 31-year-old drug-addicted person complains of a cough with bloody expectorations, dyspnea, persistent fever, and leg edemas. The jugular veins are distended. There is a coarse pansystolic

murmur detected above the base of the xiphoid process and in the second intercostal space on the left, close to the edge of the sternum. Heart sounds are clear, arrhythmia is detected, heart rate is 128/min., pulse - 82/min., blood pressure is 100/70 mm Hg. What is the most likely diagnosis?

- A. Infective endocarditis
- B. Community-acquired pneumonia
- C. Coarctation of the aorta
- D. Pulmonary embolism
- E. Lutembacher syndrome

**128.** 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, liquid bright-red blood, and bright-red plethoric internal organs. Forensic toxicology testing detected 1.44‰ of ethanol in the blood and carboxyhemoglobin levels of 55%. What is the cause of death?

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

**129.** 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. Torasemide
- B. Lisinopril
- C. Bisoprolol
- D. Doxazosin
- E. Urapidil

**130.** A 35-year-old forestry officer was delivered to the hospital on the 7th day after the onset of the disease. He complains of chills, elevated body temperature up to 40.0°C, sharp headache, and myalgias. On examination his face is puffy and hyperemic, the tongue is dry, "chalk-dusted". In the left inguinal area, a sharply painful conglomeration of enlarged lymph nodes can be palpated. The skin over the conglomeration is hyperemic and tense. What etiologic therapy should be prescribed to this patient?

- A. Streptomycin
- B. Ketoconazole
- C. Ribavirin
- D. Administration of heterologous serum
- E. Human immunoglobulin intravenously