

1. A 62-year-old patient has been hospitalized with complaints of intense retrosternal pain that lasts for one hour already and cannot be relieved with nitroglycerin. The patient suffers from angina pectoris, previously the attacks could be relieved with nitrates. The patient has no other diseases. Objectively, cyanosis of the lips is observed. Heart sounds are dull and rhythmic. ECG shows elevation of ST segment in leads V4-V6. What drug must be immediately administered to the patient?

- a. No-spa (Drotaverine)
- b. Analgin (Metamizole sodium)
- c. Actilyze (Alteplase)
- d. Dimedrol (Diphenhydramine)
- e. Corglycon

2. A 25-year-old man was hospitalized with complaints of pain in his lower abdomen and right lumbar area that appeared one hour ago. 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. Cecal tumor
- b. Acute cholecystitis
- c. Intestinal obstruction
- d. Right-sided renal colic
- e. Acute appendicitis

3. 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. Dislocation of the right shoulder
- c. Dejerine-Klumpke paresis
- d. Total brachial plexus paresis
- e. Humerus fracture on the right

4. A patient visited the doctor at a rural outpatient clinic twice during the calendar year (in March and in November). In both cases, the patient was diagnosed with acute respiratory viral infection. How to fill in the statistical forms for registration of final (clarified) diagnoses, to account for these morbidity cases?

- a. For each case separately with the (+) sign
- b. For each case separately with the (-) sign
- c. For the first case with the (+) sign, for the second case no form is necessary
- d. The forms are not filled for either of these cases
- e. For the first case with the (+) sign, for the second case with the (-) sign

5. Laboratory testing of a batch of vacuum-packaged salted salmon has determined that the histamine levels in this product are 2.8 times higher than the maximum permissible concentration. What type of food poisoning can occur after eating this product?

- a. Methemoglobinemia
- b. Scombrotoxicosis
- c. Yersiniosis
- d. Aflatoxicosis
- e. Botulism

6. 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. Trisomy 8

- b. Homocystinuria
- c. Ehlers-Danlos syndrome

**d. Marfan syndrome**

- e. Beals syndrome

7. A 3-month-old child has been formula-fed since the age of 2.5 months, because the child's mother has no milk. The mother notes that despite her taking a good care of her child, the baby developed persistent redness in the skin folds. Three-four days later, the child developed itching and hyperemic skin patches on the cheeks and chin. The patches are filled with serous exudate that forms yellowish scabs, when dried out. Seborrheic scales are observed on the child's scalp. What is the most likely diagnosis in this case?

- a. Staphyloderma
- b. Lymphatic-hypoplastic diathesis
- c. Exudative-catarrhal diathesis**
- d. Allergic (atopic) diathesis
- e. Neuro-arthritic diathesis

8. 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. Acute bronchiolitis
- b. Right-sided community-acquired pneumonia**
- c. Acute obstructive bronchitis
- d. Acute simple bronchitis
- e. Stenosing laryngotracheitis

9. A 52-year-old woman complains of general weakness and pain in her lower abdomen. She has a 2-year-long history of postmenopause. Objectively: her abdomen is enlarged and signs of ascites can be observed. Gynecological examination determined that the cervix was cylindrical and clean, the body of the uterus was small and deviated to the right. Behind the uterus and to its left, a lumpy, painless, dense, immobile mass 12x15 cm in size is palpable. What is the most likely diagnosis in this case?

- a. Left ovarian cyst
- b. Endometriosis
- c. Cancer of the body of the uterus
- d. Ovarian cancer**
- e. Uterine fibromyoma

10. A 72-year-old patient has been hospitalized with complaints of pain in the left hip joint. The patient received an injury on the street as a result of falling on the left side. During examination, the patient lies on the back, the left leg is rotated outwards, mildly adducted, and shortened. The left trochanter is palpable above the Roser-Nelaton line, the Shemaker line passes above the navel. Positive "stuck heel" sign (inability to perform a lying straight leg raise) is observed on the left. What is the provisional diagnosis in this case?

- a. Damaged hip joint ligament
- b. Hip dislocation
- c. Hip joint contusion
- d. Pubic fracture
- e. Femoral neck fracture**

11. A newborn baby has icteric skin. According to the mother's medical history, her first pregnancy was discontinued via a medical abortion at the term of 6 weeks. The mother's blood group is A(II), Rh(-). The child's blood group is A(II), Rh(+). Biochemical profiling of the umbilical cord blood revealed bilirubin levels of 82 mcmol/L, four hours later - 130 mcmol/L. What is the most likely diagnosis in this case?

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

12. A 45-year-old woman complains of general weakness, dyspnea, and dizziness. Within one year her hair became gray, her nails started peeling, and she developed gustatory disorders. For the last 5 years she has been registered for regular check-ups with a gynecologist for uterine fibromyoma. Her blood test shows the following: erythrocytes -  $3.0 \cdot 10^{12}/L$ , Hb - 76 g/L, color index - 0.7, reticulocytes - 0.7%, platelets -  $160 \cdot 10^9/L$ , leukocytes -  $5.0 \cdot 10^9/L$ , eosinophils - 2%, band neutrophils - 3%, segmented neutrophils - 63%, lymphocytes - 28%, monocytes - 4%, aniso- and microcytosis, ESR - 30 mm/hour. What type of anemia can be suspected in this case?

- a. B<sub>12</sub>-deficiency anemia
- b. Iron-deficiency anemia**
- c. Hypoplastic anemia
- d. Autoimmune hemolytic anemia
- e. Minkowski-Chauffard syndrome

13. A 37-year-old man suddenly developed acute headache accompanied by nausea, vomiting, and impaired consciousness. Objectively blood pressure is 190/120 mm Hg, the face is hyperemic. Patient's consciousness is clouded, his answers to the questions are short, monosyllabic. Movement and sensory disturbances are absent. Meningeal signs are positive. Cerebrospinal fluid contains blood. What provisional diagnosis can be made?

- a. Cerebral vascular embolism
- b. Subarachnoid hemorrhage**
- c. Ischemic stroke
- d. Meningitis
- e. Encephalitis

14. A man suddenly developed a sharp pain in the right side of his chest. Dyspnea has rapidly progressed. Objectively, the patient has marked acrocyanosis and is in a severe condition. Subcutaneous emphysema is observed in the area of the patient's neck and upper chest. Over the right lung a bandbox resonance can be heard, respiration is absent there. The heart borders are displaced to the left. The patient's heart rate is 110/min., blood pressure - 100/60 mm Hg. What is the most likely disease in this case?

- a. Exudative pleurisy
- b. Community-acquired pneumonia
- c. Myocardial infarction
- d. Spontaneous pneumothorax**
- e. Lung infarction

15. A patient with epilepsy suddenly developed status epilepticus with generalized seizures after self-discontinuation of antiepileptic drugs. What are the first-line drugs for the treatment of this condition?

- a. Gabapentin, pregabalin, ethosuximide
- b. Diazepam, lorazepam, midazolam**
- c. Topiramate, oxcarbazepine, carbamazepine
- d. Doxepin, amitriptyline, mianserin
- e. Levomepromazine, clozapine, quetiapine

16. An ambulance team has brought a man diagnosed with acute respiratory viral infection into the inpatient department. The onset of the disease was acute, with fever of  $39.9^{\circ}\text{C}$ ) The patient complains of a headache in his fronto-temporal regions, pain in the eyeballs, aches all over his body, stuffed nose, sore throat, and dry cough. At home, he had two episodes of nosebleeds. What type of acute respiratory viral infection does this patient have?

- a. Influenza**
- b. Parainfluenza

- c. Respiratory syncytial infection
- d. Adenovirus infection
- e. Enterovirus infection

17. During medical examination of high and middle school students, the doctors were assessing correlation between biological and calendar age of the school students based on the following criteria: height growth rate per year, ossification of the carpal bones, the number of permanent teeth. What additional development criterion should be assessed at this age?

- a. Vital capacity of lungs
- b. Chest circumference
- c. Body mass

**d. Development of secondary sex characteristics**

- e. Hand strength

18. A 28-year-old woman complaining of irregular menstruations and infertility came to the gynecological clinic. Menstruations occur since the age of 15, irregular, with delays up to 2 months. On examination she presents with marked hirsutism and excessive body weight. On vaginal examination the uterus is reduced in size and painless. The ovaries on both sides are dense and enlarged. Ultrasound shows microcystic changes in the ovaries, the ovaries are 5x4 cm and 4.5x4 cm in size with dense ovarian capsule. Basal body temperature is monophasic. What is the most likely diagnosis?

- a. Endometrioid cysts
- b. Ovarian carcinoma

**c. Polycystic ovary syndrome**

- d. Krukenberg tumor
- e. Bilateral adnexitis

19. A 15-year-old patient presents with delayed physical development and periodically develops icteric skin. Objectively, the spleen is 16x12x10 cm, cholezystolithiasis is observed in the patient, there is a skin ulcer on the left calf in its lower third. In the blood: erythrocytes -  $3.0 \cdot 10^{12}/L$ , Hb - 90 g/L, color index - 1.0, microspherocytosis, reticulocytosis. Total serum bilirubin - 56 mcmol/L, indirect bilirubin - 38 mcmol/L. What treatment method would be optimal in this case?

- a. Spleen transplant
- b. Omentohepatopexy
- c. Omentosplenopexy
- d. Portacaval anastomosis

**e. Splenectomy**

20. A 35-year-old patient complains of watery stools with mucus and blood that occur up to 10 times per 24 hours, constant cramping abdominal pain, a fever of  $39^{\circ}\text{C}$ , and general weakness. According to the patient's medical history, the patient was taking clindamycin for a month for the treatment of osteomyelitis. Rectoromanoscopy visualizes gray-yellow plaques against the background of edematous and hyperemic mucosa of the sigmoid colon and rectum. What is the most likely diagnosis in this case?

- a. Nonspecific ulcerative colitis
- b. Shigellosis
- c. Crohn's disease

**d. Pseudomembranous colitis**

- e. Intestinal amebiasis

21. A variety of lighting fixtures are used to illuminate classrooms. What kind of lighting fixtures creates the most hygienically acceptable lighting?

- a. Lighting fixtures that provide direct lighting
- b. Lighting fixtures that provide reflected lighting**
- c. Lighting fixtures that provide combined lighting
- d. Lighting fixtures that provide semi-reflected lighting
- e. Lighting fixtures that provide scattered lighting

22. A 58-year-old man had a moderate ischemic stroke in the right hemisphere of the brain 10 days ago. At the time of hospitalization, the deficit score on the NIHSS scale was 9 points. He suffers from moderate arterial hypertension, atrial fibrillation, urolithiasis, and gout (remission). What must be prescribed to the patient for secondary prevention of stroke?

a. Clopidogrel, 75 mg per day

**b. Oral anticoagulants (warfarin or NOACs - dabigatran, rivaroxaban, apixaban)**

c. Drugs that improve cerebral blood flow

d. High doses of lipid-lowering agents (e.g., atorvastatin - 80 mg per day)

e. Aspirin, 100 mg per day

23. A 10-year-old boy complains of shortness of breath during walking, a fever of  $38^{\circ}\text{C}$ , pain and swelling in both knee joints. Two weeks ago, he had a case of tonsillitis. Objectively, the following is observed: swelling, hyperemia, reduced mobility of the knee joints, expansion of the borders of the heart to the left, tachycardia, muffled heart sounds, systolic murmur at the apex. What is the most likely diagnosis in this case?

a. Systemic lupus erythematosus

b. Non-rheumatic carditis

c. Still's disease

d. Infectious-allergic arthritis

**e. Acute rheumatic fever**

24. A 63-year-old woman complains of weakness without an obvious cause, fatigability, loss of appetite, and a feeling of disgust towards meat products. Two weeks ago she had a gastric bleeding. Objectively,  $\text{t}^{\circ}\text{o} - 37.5^{\circ}\text{C}$ , respiratory rate - 20/min., pulse - 96/min., blood pressure - 110/75 mm Hg. Epigastric palpation detects pain and muscle tension. In the blood: Hb - 82 g/L, ESR - 35 mm/hour. What study would be the most useful for making a diagnosis?

a. Stool test

b. Gastric contents analysis

c. Endoscopy

d. X-ray

**e. Cytology**

25. One week ago, a 68-year-old woman suddenly developed pain in the left half of her chest and shortness of breath. Objectively, the following is observed: cyanosis, distended neck veins, pulse - 100/min., blood pressure - 110/70 mm Hg, respiratory rate - 28/min., liver +4 cm, the left lower leg is edematous and sharply painful to palpation. Auscultation detects a dull lung sound on the left, below the scapula; sonorous moist fine vesicular crackles are present; the borders of the heart are expanded on the right; the II heart sound is accentuated over the pulmonary artery. ECG shows deep S waves in leads I and aVL, as well as deep Q waves in leads III and aVF, and a negative T wave in leads III and aVF. What is the most likely diagnosis in this case?

**a. Thromboembolism of pulmonary artery branches**

b. Croupous pneumonia

c. Pericarditis

d. Myocardial infarction

e. Pleurisy

26. A patient complains of a fever of  $39^{\circ}\text{C}$ , 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. Furuncle

b. Erysipelas

c. Hidradenitis

d. Abscess

**e. Carbuncle**

27. In a 35-year-old patient, the disease onset was violent, with chills, a fever of  $39^{\circ}\text{C}$ , vomiting, pain in the epigastrium, and diarrhea with green-tinted watery stools with mucus. Six hours before

the illness onset, this person ate a raw egg and fried potatoes with a meat stew and drank juice. What pathogen is the most likely cause of this health condition?

- a. *Escherichia coli*
- b. *Campylobacter*
- c. *Vibrio cholerae*
- d. *Shigella*
- e. *Salmonella*

28. In an 8-year-old child, the disease began with a fever of 38.7°C, profuse nasal discharge and wet cough. Examination detects the following: the oropharyngeal mucosa is moderately hyperemic; anterior arches of the soft palate, palatine tonsils, and eyelids are edematous; membranous conjunctivitis is observed on the left; submandibular, cervical, axillary lymph nodes are 0.7x0.7 cm in size and painless; hepatosplenomegaly is observed. What is the most likely diagnosis in this case?

- a. Diphtheria
- b. Adenovirus infection
- c. Infectious mononucleosis
- d. Parainfluenza
- e. Influenza

29. A 33-year-old woman came to a maternity clinic with complaints of infertility for the last 5 years. The patient has a history of gonorrhea. Examination detects no deviations from the norm in the development of the patient's genitals. The basal temperature throughout three cycles is biphasic. What is the most likely cause of infertility in this case?

- a. Endometriosis
- b. Structural abnormalities of the genitals
- c. Endocrine pathology
- d. Impaired patency of the fallopian tubes
- e. Immunological infertility

30. When helping a man with a bleeding, the emergency physician has pricked his own finger. The patient is an injecting drug user, who underwent a test for HIV, but the results of the test are unknown. What measures must the doctor take in this case?

- a. Process the contaminated skin area, administer donor immunoglobulin
- b. Process the contaminated skin area, examine the patient for TORCH infections, start antibiotic treatment
- c. Nothing needs to be done
- d. Process the contaminated skin area, test the patient for HIV, start chemoprophylaxis
- e. Process the contaminated skin area, start antiviral and antibiotic treatment

31. A 67-year-old woman complains of rapid fatigability and constant pain in the joints of her limbs and in her spine. She has a history of frequent bone fractures. Over the past year, the woman's height has decreased by 2 cm. Objectively, local accumulation of adipose tissue is observed in the area of the projection of her seventh vertebra. The doctor suspects osteoporosis. What instrumental study is the gold standard for diagnostics of osteoporosis?

- a. Computed tomography
- b. Radiography
- c. Scintigraphy
- d. Ultrasound
- e. X-ray densitometry

32. 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. Leptospirosis
- b. Typhoid fever
- c. Measles

d. Epidemic typhus

e. Delirium tremens

33. A 32-year-old patient suffers from epilepsy. Suddenly, without any cause, the patient became excited. Objectively, the patient is disoriented in the personal identity and environment, has visual and auditory hallucinations of threatening content and delusional ideas of reference and persecution. There are expressions of fear, anger, and rage on the patient's face. The patient's behavior is aggressive, accompanied by destructive actions. What psychopathological syndrome is it?

a. Twilight state

b. Manic syndrome  
c. Hebephrenic syndrome  
d. Delirium syndrome  
e. Paranoid syndrome

34. A 38-year-old woman developed a medical condition 7 days after her return from Bangladesh. Periodical elevation of temperature was accompanied by chills and excessive sweating. She was diagnosed with tropical malaria. Next day her condition further deteriorated: body temperature -  $38^{\circ}\text{C}$ , inertness, periodical loss of consciousness, generalized seizures, tachycardia, hypotension, and icteric skin. What complication can be suspected in this case?

a. Cerebral coma

b. Serous meningitis  
c. Purulent meningitis  
d. Acute heart failure  
e. Acute hepatic failure

35. A 50-year-old patient complains of pain in his bones and especially ribs. Complete blood count: erythrocytes -  $3.3 \cdot 10^{12}/\text{L}$ , hemoglobin - 100 g/L, leukocytes -  $6.5 \cdot 10^9/\text{L}$ , segmented neutrophils - 50%, lymphocytes - 32%, monocytes - 18%, ESR - 62 mm/hour. Skull X-ray shows multiple small regular-shaped defects. Plasma cells make up 30% of sternal punctate. What is the most likely diagnosis in this case?

a. Systemic lupus erythematosus

b. Ankylosing spondylitis  
c. Von Willebrand disease

d. Multiple myeloma

e. Acute lymphoblastic leukemia

36. 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  $40.0^{\circ}\text{C}$ , 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 etiopathic therapy should be prescribed to this patient?

a. Ketoconazole

b. Human immunoglobulin intravenously

c. Streptomycin

d. Ribavirin

e. Administration of heterologous serum

37. A 49-year-old patient has been diagnosed with a fracture of the pelvic bones. A bladder injury is suspected. What method of examination is necessary in this case?

a. Laparocentesis

b. Laparoscopy

c. Excretory urography with contrast

d. Ultrasound of the pelvis

e. Magnetic resonance imaging of the pelvis

38. An 8-year-old boy developed a temperature of  $37.5^{\circ}\text{C}$  two days after his recovery from the case of URTI. He complains of suffocation, heart pain. Objectively: the skin is pale, tachycardia, the I heart

sound is weakened, short systolic murmur in the 4th intercostal area near the left edge of the breastbone. What heart disorder such clinical presentation is characteristic of?

- a. Cardiomyopathy
- b. Primary rheumatic carditis
- c. Fallot's tetrad
- d. Nonrheumatic myocarditis**
- e. Myocardiodystrophy

39. 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 -  $37.8^{\circ}\text{C}$ . Palpation detects spastic and painful sigmoid colon. What is the most likely diagnosis in this case?

- a. Amoebiasis
- b. Yersiniosis
- c. Non-specific ulcerative colitis
- d. Salmonellosis
- e. Shigellosis**

40. A 45-year-old man complains of painless nodules that appeared on the skin of his limbs and on the small of his back. The nodules have a tendency to grow peripherally and merge together. The disease onset was 2 years ago. Exacerbations occur mostly in spring. His family history states that his father had a similar skin condition. Objectively, the pathologic elements manifest as drop-shaped and coin-shaped nodules and plaques, covered in white scales. Make the provisional diagnosis:

- a. Seborrheic eczema
- b. Atopic dermatitis
- c. Psoriasis**
- d. Lichen ruber planus
- e. Pityriasis rosea

41. During physical exertion, a man with a cerebral artery aneurysm suddenly developed severe headache and vomiting and fainted. Objectively, the patient is agitated and wants to run somewhere. His pulse is 62/min., rhythmic, blood pressure - 140/90 mm Hg, body temperature -  $37.5^{\circ}\text{C}$ . He has nuchal rigidity and positive Kernig's sign. Focal neurological signs are absent. Make the provisional diagnosis:

- a. Brain hemorrhage
- b. Ischemic stroke
- c. Subarachnoid hemorrhage**
- d. Meningitis
- e. Hypertensive crisis

42. A 38-year-old woman complains of weakness, sleepiness, pain in the joints, weight gain despite low appetite, and constipation. She presents with dry and thickened skin, puffy and amimic face, narrowed palpebral fissures, thick tongue, and deep hoarse voice. Her heart sounds are weak, pulse is 56/min. Low levels of free T4 are observed. This patient needs to take the following on a regular basis:

- a. Lithium carbonate
- b. Mercaptopurine (Thiamazole)
- c. Furosemide
- d. Calcium gluconate
- e. Thyroxine**

43. A woman has undergone a surgery for diffuse toxic goiter, degree II. Twelve hours after the surgery, she developed complaints of hoarseness and voice loss, problems with breathing, dyspnea, and anxiety. Her post-surgery wound is normal. What complication developed in this woman?

- a. Tracheal injury
- b. Postoperative bleeding
- c. Hypoparathyroidism

d. Thyrotoxic crisis

e. Recurrent laryngeal nerve paresis

44. A 44-year-old man was hospitalized with a perforated stomach ulcer 5 hours after the onset of the disease. The diagnosis was confirmed by radiological pneumoperitoneum. Signs of diffuse peritonitis are increasing. The patient has a concomitant disease - schizophrenia. The man absolutely refuses surgery. What would be the surgeon's next steps in this case?

a. Notify the deputy chief physician and carry out conservative treatment until the patient consents to the surgery

b. Convene a council including the hospital administration and, based on the council's decision, immediately proceed with the patient's surgery

c. Continue to persuade the patient until he consents to the surgery

d. Carry out conservative treatment using the Taylor's method

e. Refrain from surgical intervention and carry out comprehensive conservative treatment

45. A 32-year-old woman complains of visual impairment, frequent headaches accompanied by nausea, and irregular menstrual cycle. These complaints were observed for the past three months. In neurological status, bitemporal hemianopsia is observed. Laboratory testing detects increased prolactin levels in the blood. What is the most likely diagnosis in this case?

a. Multiple sclerosis

b. Pituitary adenoma

c. Optic nerve atrophy

d. Cerebral infarction

e. Physiological hyperprolactinemia

46. A 45-year-old woman is undergoing treatment for active rheumatism, combined mitral valve failure. During her morning procedures she suddenly sensed pain in the left hand, which was followed by numbness. Pain and numbness continued to aggravate. Objectively: the skin of the left hand is pale and comparatively cold. Pulse in the hand arteries is absent along the whole length. What treatment tactics is most efficient?

a. Prescription of fibrinolytics and anticoagulants

b. Cardiac catheterization

c. Prescription of antibiotics and antiinflammatory agents

d. Urgent thrombectomy

e. Urgent embolectomy

47. A 37-year-old patient complains of throbbing headache in the frontal region, frequent episodes of nausea, palpitations, and elevated blood pressure of 240/140 mm Hg. According to the patient's medical history, two days ago she experienced an episode of debilitating headache, palpitations, pulsation of blood vessels, dyspnea, and fear of approaching death. At that time, her face became pale and her hands and feet became sweaty. After examination, elevated levels of metanephrenes were detected in patient's urine. What is the most likely diagnosis in this case?

a. Pheochromocytoma

b. Cushing syndrome

c. Essential hypertension

d. Primary hyperaldosteronism

e. Cushing disease

48. A patient was hospitalized into the neurosurgery department with a closed craniocerebral injury, a fracture of the right temporal bone. Five hours later, the patient's condition sharply deteriorated, he developed respiratory disorders, periodical tonic seizures, and anisocoria (dilation of the right pupil). What complication can be suspected in this case?

a. Characteristics associated with the course of concussion

b. Subarachnoid hemorrhage

c. Epidural hematoma

d. Ischemic stroke in the area of the right cerebral peduncle

e. Brain abscess

49. A 60-year-old man complains of a heavy sensation in his scrotum. Objectively, there is a scrotal edema on the left. The testicle is of normal size, but above it a soft edema is palpable. The edema is limited to the scrotum, can be compressed, and disappears when the patient lies down. Make the diagnosis:

- a. Varicocele
- b. Inguinal hernia
- c. Ectopic testicle
- d. Inguinal lymphadenopathy
- e. Subcutaneous varicose veins

50. 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. Coma
- b. Collapse
- c. Morgagni-Adams-Stokes syndrome
- d. Ventricular fibrillation
- e. Shock

51. A 55-year-old man complains of general weakness, decreased fluid excretion, and an aching pain in his heart. For the last 15 years he has been suffering from chronic pyelonephritis and undergoing an inpatient treatment. Objectively, his skin is dry and has a yellowish tinge. His pulse is 80/min., rhythmic, blood pressure - 100/70 mm Hg. Cardiac auscultation detects muffled heart sounds and a friction rub in the pericardium. Laboratory tests: creatinine - 1.1 mmol/L, glomerular filtration - 5 mL/min. What treatment is indicated for this patient?

- a. Antibiotics
- b. Hemodialysis
- c. Rheopolyglucin (Dextran)
- d. Diuretics
- e. Xylit, Sorbitol

52. 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. Imidazoline receptor antagonists
- b. Diuretics
- c. Angiotensin-converting enzyme inhibitors
- d. beta-blockers
- e. Calcium antagonists

53. 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. Concrement in the bladder
- b. Bladder tumor
- c. Renal tumor
- d. Bladder diverticulum
- e. Acute cystitis

54. A 60-year-old man complains of dyspnea, paresthesia, vertigo, and fatigability. He has a history of atrophic gastritis. Objectively, his skin and mucosa are pale and icteric. Lingual papillae are smoothed out. The liver and pancreas are not enlarged. Complete blood count shows the following: Hb- 77 g/L, erythrocytes -  $1,65 \cdot 10^9 / L$ , color index - 1.4, reticulocytes - 0.2%, leucocytes -  $2.8 \cdot 10^9 / L$ ; ESR - 22 mm/hour, macrocyte. What additional test can reveal the cause of anemia?

- a. Vitamin D levels
- b. Iron levels
- c. Vitamin B<sub>12</sub> levels

- d. Calcium levels
- e. Copper levels

55. A 16-year-old patient complains of aching pain in the epigastric region, sour eructation, and periodic heartburn after eating spicy, sour, or fried foods. Examination detects erosive gastritis with an increased acid-producing function of the stomach. What group of drugs should be prescribed for this patient to regulate the acidity of gastric juice?

- a. Bismuth preparations
- b. Proton pump inhibitors**
- c. Selective muscarinic antagonists
- d. Histamine H<sub>1</sub> blockers
- e. Histamine H<sub>2</sub> blockers

56. The following indicators were calculated to analyse population health and treatment quality in a cardiological hospital: primary cardiovascular morbidity - 62%; total cardiovascular morbidity - 483,55%; cardiovascular mortality - 10,9%; proportion of cardiovascular mortality within total mortality - 67,0%; primary disablement caused by cardiovascular diseases - 16,2 per 10.000 population. What indicator is an extensive value?

- a. Primary disablement caused by cardiovascular diseases
- b. Total cardiovascular morbidity
- c. Cardiovascular mortality
- d. Proportion of cardiovascular mortality within total mortality**
- e. Primary cardiovascular morbidity

57. A 22-year-old postparturient woman on the 12th day after the normal childbirth informs of fever up to 39<sup>o</sup>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 8x8 cm with a fluctuation in its center. What is the most likely diagnosis?

- a. Postpartum period, day 12. Right-sided gangrenous mastitis
- b. Postpartum period, day 12. Right-sided phlegmonous mastitis
- c. Postpartum period, day 12. Right-sided infiltrative-purulent mastitis**
- d. Postpartum period, day 12. Right-sided serous mastitis
- e. Postpartum period, day 12. Right-sided lactostasis

58. A medical committee consisting of a therapist, dermatologist, traumatologist, ophthalmologist, neurologist, immunologist, surgeon, otolaryngologist, and hematologist was called in for the regular medical examination of the workers at a chemical factory that produces chromium- and nickel-containing mineral compounds. Name the minimum composition of such a committee, taking into account the characteristics of the products manufactured by the factory:

- a. Therapist, dermatologist, traumatologist
- b. Therapist, ophthalmologist, neurologist
- c. Therapist, immunologist, surgeon
- d. Therapist, hematologist, ophthalmologist
- e. Otolaryngologist, therapist, dermatologist**

59. One year ago a 46-year-old woman underwent a partial thyroidectomy due to multinodular goiter. Now she complains of general weakness, drowsiness, constant fatigue, low working ability, constipations, edema of her face and limbs. Objectively, her body temperature is 36<sup>o</sup>C) Her skin is dry and wrinkled. She started losing her hair and developed amenorrhea. What condition is it?

- a. Thyrotoxicosis
- b. Primary hypothyroidism**
- c. Chronic thyroiditis
- d. Hypoparathyroidism
- e. Subclinical hypothyroidism

60. A 29-year-old woman complains of infertility and an irregular menstrual cycle (oligomenorrhea). Examination detected the following: height - 160 cm, body weight - 91 kg, growth of hair on the face and thighs. Bimanual examination revealed enlarged dense ovaries 5x6 cm in size on both sides.

Ultrasound confirmed these findings. What is the cause of the woman's complaints?

- a. Ovarian androblastoma
- b. Premenstrual syndrome
- c. Sclerocystic ovary syndrome (Stein-Leventhal syndrome)**
- d. Adrenogenital syndrome
- e. Chronic bilateral adnexitis

61. After giving birth, a 25-year-old woman developed increased weakness in her legs and unsteady walking. She has been suffering from this condition for 6 years already. Every autumn, she notes a deterioration of her condition. Objectively, the woman is euphoric and exhibits a reduced critical attitude towards her condition. She has horizontal nystagmus, high tendon reflexes, foot clonus, pathological foot reflexes, no abdominal reflexes, ataxia during the Romberg test, and intentional tremor and missing during coordination tests. Temporal pallor of the optic discs is observed on the eye fundus. What is the most likely diagnosis in this case?

- a. Acute disseminated encephalomyelitis

- b. Myasthenia gravis

- c. Multiple sclerosis**

- d. Amyotrophic lateral sclerosis

- e. Dyscirculatory encephalopathy

62. A 10-year-old child, living in a large industrial city, presents with encephalopathy, polyneuritis, disturbed mental development, and reduced learning ability. In the blood: reticulocytosis, basophilic stippling of the erythrocytes. What poisoning can be suspected?

- a. Lead**

- b. Iron

- c. Zinc

- d. Copper

- e. Mercury

63. A pregnant woman at the term of 11-12 weeks was hospitalized into the gynecological department with uterine bleeding and cramping pain in her lower abdomen. Vaginal examination shows that her vagina is filled with blood clots and her cervical opening is 2 cm. A tense amniotic sac can be detected in the birth canal. The uterus is tense and enlarged to the size that corresponds to the period of 11-12 weeks of pregnancy. The discharge is profuse and bloody. What must the doctor do in this case?

- a. Conduct blood transfusion

- b. Perform uterine curettage**

- c. Prescribe progesterone

- d. Perform conservative monitoring

- e. Conduct tocolytic therapy

64. A 25-year-old woman developed a fever of 39°C three weeks after the childbirth. Objectively, her left mammary gland is edematous and painful, the skin there is hyperemic and hot to the touch. What is the most likely diagnosis in this case?

- a. Lactational mastitis**

- b. Diffuse cystic mastopathy

- c. Breast cyst

- d. Breast tumor

- e. Mastodynia

65. A newborn girl was born from the second pregnancy with a complicated delivery (weak labor activity, shoulder dystocia). The Apgar score is 6-8 points, the weight at birth is 4200 g. During examination, left-sided Erb-Duchenne palsy was diagnosed. At what level is the spinal cord damaged in this case, as is characteristic of this disorder?

- a. Th1-Th2

- b. C1-C3

- c. C7-Th1

- d. C5-C6**

e. C3-C4

66. A 24-year-old man has developed increasing headaches, vertigo, diplopia, paresis of the facial muscles on the right, choking during swallowing. The signs appeared on the 5th day of respiratory disorder. He was diagnosed with acute viral encephalitis. Determine the main direction of emergency therapy:

- a. Neohaemodes
- b. Zovirax (Aciclovir)**
- c. Glucocorticoids
- d. Ceftriaxone
- e. Lasix (Furosemide)

67. 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. Urgent cesarean section
- b. External obstetric version of the fetus
- c. Classic combined external-internal version of the fetus
- d. Fetal extraction from the pelvic end

**e. Delivery through the natural birth canal**

68. 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. Right-sided pleuropneumonia
- c. Chronic bronchitis
- d. Tuberculosis of the right lung
- e. Pneumoconiosis

69. A 38-year-old man complains of an ulcer that appeared in the area of the head of his penis one week ago. The patient observes no subjective sensations in the ulcer. Objectively, there is an erosion 1 cm in diameter in the area of the head of the penis. Slight lamellar compaction is observed in the ulcer. There are no noticeable inflammatory phenomena. The ulcer has smooth edges and the color of "raw meat". What is the most likely diagnosis in this case?

- a. Leishmaniasis
- b. Trichomoniasis
- c. Primary syphilis**
- d. Scabies
- e. Genital herpes

70. A 58-year-old man complains of an inguinal tumor that increases during straining and coughing. Objectively, there is a pulsating tumor-like formation located below and laterally to the Poupart's ligament. The formation does not diminish during palpation. Make the diagnosis:

- a. Femoral hernia
- b. Femoral aneurysm**
- c. Ectopic testicle
- d. Neurinoma of the femoral nerve
- e. Inguinal hernia

71. A 46-year-old man, suffering from a constricting pain in the cardiac area, developed circulatory and respiratory arrest. ECG monitor shows a large-wave ventricular fibrillation. What should be done first in this case?

a. Give dopamine intravenously

**b. Perform defibrillation**

c. Give atropine intravenously

d. Implant an electronic pacemaker

e. Give lidocaine intravenously

72. A 35-year-old woman developed red swollen areas on the dorsal surface of her hands after a severe nervous strain, which was followed by formation of small inflamed nodules, vesicles, and later erosions with significant discharge of a serous fluid. This process is accompanied by severe itching. Make the diagnosis:

a. Microbial eczema

b. Simple contact dermatitis

c. Toxicoderma

**d. True eczema**

e. Allergic dermatitis

73. 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. Mixed

b. Capillary

c. Parenchymatous

**d. Arterial**

e. Venous

74. A 16-year-old patient has made an appointment with an otolaryngologist. He complains of elevated body temperature and sore throat. Disease onset was 2 days ago, after the patient ate two portions of ice-cream. Pharyngoscopy shows hyperemic mucosa of the palatine tonsils, with purulent exudate in the lacunae. Make the provisional diagnosis:

a. Pseudomembranous (Vincent's) tonsillitis

b. Acute pharyngitis

c. Follicular tonsillitis

d. Diphtheria

**e. Lacunar tonsillitis**

75. A newborn boy has been hospitalized with complaints of projectile vomiting with curdled milk and weight loss. The vomiting began on day 21 of life, the amount of stools and urine output decreased.

What diagnostic method would be most informative in this case?

a. Abdominal ultrasound

b. Abdominal laparoscopy

c. Abdominal CT scan

d. Abdominal X-ray

**e. Fibrogastroduodenoscopy**

76. A 25-year-old man suffers from a disease that manifests with fever and vesicular rash that appears mostly on the trunk and scalp. On the 10th day after the onset of the disease, he developed an intense headache, vomiting, ataxia, sluggishness, coordination of movements, limb tremor. He was diagnosed with encephalitis. This condition is the complication of the following disease:

a. Scarlet fever

b. Vesicular rickettsiosis

c. Rubella

**d. Chickenpox**

e. Measles

77. A woman has been working as a polisher for a year and a half. Her workstation is equipped with a grinding machine (grinding wheels). She complains of white discoloration of her fingers and toes that appears when she is nervous. Objectively there are no changes in the coloration of the distal

segments of her limbs. Grip strength measured with a dynamometer is 25 kg, algesimetry findings are 0.1; 0.3; 0.5. Cold stimulus is extremely positive on the upper and lower limbs. Internal organs are without pathologies. Make the diagnosis:

- a. Syringomyelia
- b. Vibration disease**
- c. Polyneuritis
- d. Raynaud disease
- e. Raynaud syndrome

78. 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 ceftriaxone
- c. Prescribe nifuroxazide
- d. Prescribe polymyxin
- e. Prescribe loperamide

79. A 2-day-old child was born at week 32 of the pregnancy with the weight of 1700 g. The changes in the respiratory system that appeared 8 hours after birth are increasing. The mother of the child, gravida 3, para 2, had no abortions. The previous child died of respiratory distress syndrome. Objectively, the following is observed: Silverman score - 6 points, respiration with a disturbed rhythm, apnea, sonorous exhalation, reduced muscle tone. Auscultation detects moderately weakened respiration and wet crackles on both sides. X-ray reveals a reticulonodular pattern. What is the cause of respiratory distress syndrome in the child?

- a. Pulmonary atelectasis
- b. Diaphragmatic hernia
- c. Hyaline membrane syndrome**
- d. Intrauterine pneumonia
- e. Edematous hemorrhagic syndrome

80. A 12-year-old girl has developed a panaritium (whitlow) on the fourth finger of her left hand. In this case, a reaction is most likely to be detected in a certain group of lymph nodes. Name this group of lymph nodes.

- a. Axillary
- b. Subclavian
- c. SuprACLAVICULAR
- d. Cubital**
- e. Thoracic

81. A 13-year-old girl complains of a febrile body temperature that is observed within the last month, pain in the joints, and periodical skin rash. Examination detects LE-cells and a persistent increase in ESR in the child's blood. Make the diagnosis:

- a. Systemic scleroderma
- b. Rheumatism
- c. Acute lymphoblastic leukemia
- d. Systemic lupus erythematosus**
- e. Juvenile rheumatoid arthritis

82. A 25-year-old pregnant woman complains of fever of  $38.5^{\circ}\text{C}$  that lasts for two days already, cough, and shortness of breath. She developed these complaints after an overexposure to cold. Auscultation detects crepitation and localized moist crackles in the lower part of the right lung. Percussion detects there a dull sound. Complete blood count shows the following: leukocytes -  $11.0 \cdot 10^9/\text{L}$ , ESR - 22 mm/hour. What antibacterial agent must be prescribed in this case?

- a. Levofloxacin
- b. Amoxicillin**
- c. Doxycycline

- d. Amikacin
- e. Carbenicillin

83. 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. Formation of a post-injection abscess
- b. Allergic response
- c. Development of atrophic lipodystrophy
- d. Formation of a post-injection infiltration

**e. Development of hypertrophic lipodystrophy**

84. Survey X-ray of the patient's abdominal cavity shows several hemispherical areas of lucency, located above well-defined horizontal levels. What is the cause of such an X-ray presentation?

- a. Cancer of the large intestine
- b. Perforated ulcer

**c. Intestinal obstruction**

- d. -
- e. Meteorism

85. A 5-year-old child had acute onset of the disease that manifested in body temperature up to  $39.5^{\circ}\text{C}$ , 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. Thrombocytopenic purpura
- b. Hemorrhagic vasculitis (Henoch-Schonlein purpura)
- c. Reye syndrome
- d. Measles

**e. Meningococcemia**

86. Clinical trials have proved the "Lipoflavon" drug to be effective for treatment of unstable angina pectoris in the control group and experimental group of patients. Neither patients nor researchers knew who belonged to which group. Name this type of study:

- a. Simple blind study
- b. Double blind study**
- c. Triple-blind study
- d. Multicenter study
- e. Total-blind study

87. Mother of a 5-year-old child noticed on the head of her child a round "bald" spot 3 cm in diameter. All the hairs in the focus are broken off at the length of 5-6 mm. The day before the child was petting a stray cat. Make the diagnosis:

- a. Alopecia areata
- b. Superficial trichophytosis

**c. Microsporia**

- d. Deep trichophytosis
- e. Psoriasis

88. 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. Ovarian cystoma
- b. Kidney tumor

- c. Pregnancy
- d. Endometriosis

**e. Nodular uterine leiomyoma**

89. A 38-year-old pregnant woman, gravida 2, gestation term of 23-24 weeks, has type 2 diabetes mellitus, for which she receives metformin in the dose of 2500 mg per 24 hours. Laboratory analysis detects glycated hemoglobin (HbA<sub>1c</sub>) levels of 7.2 %. What further treatment strategy should be chosen for this patient?

- a. Add GLP-1 analogues to metformin
- b. Continue the treatment unchanged
- c. Increase the dose of metformin to 3000 mg per 24 hours
- d. Discontinue metformin and switch to sulfonylureas

**e. Prescribe insulin therapy and discontinue metformin**

90. A 36-year-old man complains of general weakness, intense thirst, and polyuria. Objectively, his skin, mucosa, and tongue are dry, the borders of the heart remain unchanged, pulse - 78/min.

Urinalysis results: specific gravity - 1.006, leukocytes - 2-4 in sight. Blood test results: fasting glucose - 4.8 mmol/L, decreased levels of antidiuretic hormone. What is the most likely diagnosis in this case?

- a. Acute pyelonephritis
- b. Cushing's disease
- c. Diabetes mellitus
- d. Primary hyperaldosteronism

**e. Diabetes insipidus**

91. A 3-year-old child was brought to the hospital by the mother with complaints of leg edema, dyspnea, cough, and abdominal pain. Heart murmurs were detected in the child at the early age, but back then the parents declined further examination. After a case of acute viral respiratory infection one month ago, the mother noticed that the child had become inert and periodically fussy and started developing edema of the shins. The child's condition is severe. Respirations are 40/min. Foot and shin edema is observed. There are wet crackles in the lower posterior segments of the lungs. The left border of the relative cardiac dullness is located along the left anterior axillary line. Heart sounds are muffled and arrhythmic. The child's heart rate is 120/min. The liver is +5 cm. Diuresis is decreased. Name the pathogenesis of the edema in this child:

- a. Disturbed renal hemodynamics
- b. Reduced protein synthesis function of the liver
- c. Increased vascular permeability

**d. Reduced cardiac ejection fraction and venous congestion**

- e. Protein loss in stool

92. A 42-year-old man has received a polytrauma in a car accident: closed displaced fractures of his right humerus and the bones of his left forearm and a closed blunt abdominal trauma. He was brought into the admission room 30 minutes after the trauma. His skin is pale. His blood pressure is 90/20 mm Hg, the fracture sites are deformed and painful. The abdomen is rigid and its palpation causes sharp pain. The Bloomberg's sign is positive. What medical procedures must be performed first in this case?

- a. Immobilization of the fractures, pain relief
- b. Fracture blockade with a topical anesthetic

**c. Urgent laparotomy**

- d. Infusion therapy to stabilize the blood pressure
- e. Additional examination to determine the exact diagnosis

93. 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. Hypertensive crisis
- b. Ventricular septal rupture
- c. Cardiogenic shock
- d. Pulmonary embolism

**e. Pulmonary edema**

94. A 45-year-old man, provisionally diagnosed with a transient ischemic attack, was brought by an ambulance from an aniline-producing factory. Objectively, his skin and mucosa are cyanotic. His speech is dysarthric. The man is disoriented in space. His blood test shows the following: erythrocytes -  $4.6 \cdot 10^{12}/L$ , Hb - 143 g/L, color index - 0.9, leukocytes -  $5.6 \cdot 10^9/L$ , Heinz bodies - 14%, reticulocytes - 18%, methemoglobin - 36%, ESR - 5 mm/hour. The patient was diagnosed with a moderately severe acute aniline intoxication. What antidote agent will be the most effective in this case?

- a. Succimer
- b. Sodium thiosulfate
- c. Pentacin (Calcium trisodium pentetate)
- d. Desferal (Deferoxamine)
- e. Methylene blue**

95. During the examination of a deceased person at the site of an accident, a doctor detected gray-yellow triangular areas in the corners of the eye on the cornea. What phenomenon is observed by the doctor?

- a. Idiomuscular tumor
- b. Larcher spots**
- c. Louis sign (corneal clouding)
- d. Kayser-Fleischer ring
- e. Beloglazov sign ("cat's eye")

96. A 26-year-old patient developed nausea, vomiting, and diarrhea two hours after eating undercooked red beans. What peptide toxin has caused the food poisoning in this case?

- a. Phasin**
- b. Solanine
- c. Muscaridine
- d. Phallotoxin
- e. Muscarine

97. A 27-year-old patient developed a fever of  $38.7^{\circ}\text{C}$ , lumbar pain, weakness, and headache after an overexposure to cold. Examination detects a positive Pasternacki sign (costovertebral angle tenderness) on the left. General urinalysis detects pyuria and bacteriuria. What is the most likely diagnosis in this case?

- a. Acute cystitis
- b. Acute pyelonephritis**
- c. Acute glomerulonephritis
- d. Paraneoplastic abscess
- e. Renal colic

98. A sanitary-epidemiological station at a rural region received an emergency message that a patient diagnosed with typhoid fever was admitted to the infectious diseases department of the central regional hospital. What is the main transmission route of this disease?

- a. Water-borne transmission**
- b. Arthropod-borne transmission
- c. Household transmission
- d. Droplet transmission
- e. Food-borne transmission

99. A 45-year-old man complains of an intense retrosternal pain that radiates into the lower jaw and occurs at rest, at night, several times for 10-15 minutes. During a pain attack, an elevation of the ST segment can be recorded on the ECG in leads V<sub>3</sub>-V<sub>4</sub>. What is the provisional diagnosis in this case?

- a. Stable angina pectoris, functional class II
- b. Myocardial infarction
- c. Stable angina pectoris, functional class IV
- d. Prinzmetal angina pectoris**
- e. Progressive angina pectoris

100. A 26-year-old woman, pregnancy I, 10 weeks of gestation, has been suffering from rheumatism since her childhood. With pregnancy her condition has deteriorated: her dyspnea increased and she developed edema in her lower extremities. Her pulse is 86/min., the lips are cyanotic, there are systolic and diastolic murmurs over the cardiac apex. The liver protrudes 4 cm from under the costal margin. The woman was diagnosed with III degree heart failure, her left ventricular ejection fraction is less than 40%. What are the tactics of the patient management in this case?

- a. Medication-induced termination of the pregnancy
- b. Prolongation of the pregnancy with periodical treatment in the cardiology department
- c. Prolongation of the pregnancy with periodical hospitalization into the obstetrical inpatient department during the critical periods
- d. Termination of the pregnancy with vacuum aspirator**
- e. Termination of the pregnancy via minor cesarean section

101. A 27-year-old electrician received an electrical injury, when he touched an exposed electrical wire with his hand, after which he developed circulatory and respiratory arrest. Resuscitation measures restored his cardiac activity after 5 minutes. What complication is possible in a few hours or even days after the electrical injury?

- a. Acute renal failure
- b. Acute liver failure
- c. Circulatory arrest**
- d. Pulmonary edema
- e. Respiratory arrest

102. A 19-year-old young man has been hospitalized into the hematology department with complaints of pain in his right shoulder joint that occurred after the joint was bruised. It is known from the patient's history that such clinical presentations were observed repeatedly since his early childhood. Objectively, the joint is enlarged in volume and sharply painful to palpation. Blood test: erythrocytes -  $3.7 \cdot 10^{12}/L$ , Hb - 110 g/L, platelets -  $175 \cdot 10^9/L$ , leukocytes -  $6.9 \cdot 10^9/L$ , ESR - 25 mm/hour, prothrombin index - 90%, recalcification time - 280 min., blood coagulation time: beginning - 10 min., end - 38 min., activated partial thromboplastin time - 90 min., fibrinogen - 3.5 g/L. What is the most likely diagnosis in this case?

- a. Hemorrhagic vasculitis
- b. Autoimmune thrombocytopenia
- c. Hemophilia**
- d. Thrombocytopathy
- e. Autoimmune coagulopathy

103. A 2-year-old child suffers from frequent and long-lasting respiratory diseases and pancreatic malabsorption. Mucoviscidosis (cystic fibrosis) is suspected. What study is necessary to confirm this diagnosis?

- a. Bronchoscopy
- b. Immunogram
- c. Sweat chloride test**
- d. Chest X-ray
- e. Karyotyping

104. A district doctor has been tasked with preparation of a plan for a complex of treatment and prevention measures among the population in his district. What measures for secondary disease prevention should be included in this plan?

- a. Rehabilitation measures
- b. Disease prevention
- c. Improving the living conditions of the population
- d. Elimination of the causes of diseases
- e. Prevention of disease complications**

105. 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 -  $16 \cdot 10^9/L$

, lymphocytes - 72%, erythrocyte sedimentation rate - 4 mm/hour. What is the most likely diagnosis?

- a. Obstructive bronchitis
- b. Foreign body
- c. Pneumonia
- d. Pertussis**
- e. Adenovirus infection

106. A 59-year-old man complains of pain in his left eye and left side of his head, significant vision impairment of the left eye, nausea, and vomiting. Visual acuity of the right eye is 1.0. Visual acuity of the left eye is 0.03, attempts at correction bring no improvement. Right eye intraocular pressure - 21 mm Hg, left eye intraocular pressure - 65 mm Hg. Congestive injection is observed on the sclera of the left eye. The cornea is thick and swollen. The anterior chamber is shallow, moist, and clear. The pupil is dilated and unresponsive to the light, the fundus of the eye is not visible. What is the most likely diagnosis?

- a. Acute attack of glaucoma of the left eye**
- b. Acute iridocyclitis of the left eye
- c. Stage II intraocular tumor of the left eye
- d. Panophthalmitis of the left eye
- e. Endophthalmitis of the left eye

107. 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. Mobile communication
- b. Air medical services
- c. Ambulance services
- d. Telemedicine**
- e. Field medical teams

108. In a city, the levels of manganese are elevated in the atmospheric air, water, and agricultural foods. What type of effect do these factors have on the health of the population?

- a. Joint
- b. Combined
- c. Complex**
- d. Synergistic
- e. Separate

109. A 36-year-old man complains of nausea, recurrent episodes of vomiting, and pain in the right hypochondrium that radiates into the right shoulder blade. According to the patient's medical history, the symptoms appeared 11 hours ago after excessive consumption of fatty fried foods. Objectively, the patient's tongue is dry and has a white coating. The abdomen is tense and painful during palpation in the right hypochondrium. Positive signs of Ortner, Zakharin, Murphy, and Mussi-Georgievsky can be detected. Pulse - 96/min. Complete blood count: leukocytes -  $10.4 \cdot 10^9/L$ . What is the most likely diagnosis in this case?

- a. Acute pancreatitis
- b. Right-sided renal colic
- c. Intestinal obstruction
- d. Acute cholecystitis**
- e. Acute gastritis

110. A patient with chronic pancreatitis complains of diarrhea occurring up to 5 times per day (no blood traces), loss of body weight, abdominal distention, dryness of skin, loss of hair, thirst, bleeding gums, convulsions. Complete blood count: leukocytes -  $5.8 \cdot 10^9/L$ ; Hb - 86 g/L; ESR - 15 mm/g; Blood protein test: protein - 48 g/L; albumins - 28 g/L. What indicators of coprological analysis would accompany this syndrome?

- a. Large amount of starch grains and cellulose
- b. Large numbers of iodophilous microbes
- c. Large amount of mucus, amylorrhea

d. Gas bubbles, acid reaction

e. Steatorrhea, creatorrhea

111. A 22-year-old woman complains of an aching pain in her right iliac region throughout the last week, morning sickness, and taste distortions. Her menstruation is delayed for 3 weeks already. Objectively, her blood pressure is 110/70 mm Hg, pulse - 78/min., t<sup>o</sup> - 37.0<sup>o</sup>C) Bimanual examination shows that her uterus is slightly enlarged, soft, mobile, and painless. Palpation of the uterine appendages detects on the right a painful and moderately mobile dense-elastic formation 3x4 cm in size. Make the diagnosis:

a. Acute appendicitis

b. Progressing tubal pregnancy

c. Cyst of the right ovary

d. Uterine pregnancy

e. Interrupted tubal pregnancy

112. A 30-year-old patient has been hospitalized with diagnosis of intestinal obstruction. The surgery revealed the obstruction of the small intestine to be caused by a helminth ball. What kind of helminth is it?

a. Cysticercus

b. Guinea worm

c. Filariidae

d. Pinworm

e. Ascaris

113. A 48-year-old woman complains of pain in the thoracic spine, sensitivity disorder in the lower body, disrupted motor function of the lower limbs, body temperature rise up to 37,5<sup>o</sup>C) She has been suffering from this condition for 3 years. Treatment by various specialists was ineffective. X-ray reveals destruction of adjacent surfaces of the VIII and IX vertebral bodies. In the right paravertebral area at the level of lesion there is an additional soft tissue shadow. What diagnosis is most likely?

a. Spinal tumor

b. Metastases into the spine

c. Osteochondrosis

d. Multiple sclerosis

e. Tuberculous spondylitis of the thoracic spine

114. A 35-year-old patient undergoing treatment for heart disorder in cardiological department has developed complaints of acute sudden pain in the epigastrium, temperature rise up to 38,3<sup>o</sup>C) Blumberg's and Razdolsky's (abduction of femur) signs are positive. What necessitates surgical aid in the given case?

a. Activity of the heart disorder

b. Severity of the concomitant pathology

c. Urgent aid is required to save the patient's life

d. Progress as a surgical disease

e. Extent of congenital and acquired development disorders

115. Several chemical substances enter the human body from atmospheric air. What is the type of joint action, where the overall effect on the human body is more than the sum of the individual effects of each separate substance included in the combination?

a. Antagonism

b. Complex action

c. Potentiation

d. Isolated action

e. Combined action

116. Essential hypertension, as an important non-communicable disease, is the most common type of arterial hypertension, in which there is a persistent increase in blood pressure up to 140/90 mm Hg and which is influenced by exogenous and endogenous risk factors. What factors are endogenous?

a. Age (over 40 years), sex, hereditary predisposition

- b. Stress
- c. Excessive emotional and nervous strain
- d. Sensitivity to weather changes
- e. Obesity

117. A pregnant woman at 35 weeks of gestation has moderate preeclampsia. A decrease down to 3 points is detected in the biophysical profile of the fetus. Dopplerometry reveals a reversal of the umbilical arterial flow. What would be the further tactics of the attending doctor in this case?

- a. Cordocentesis
- b. Induction of labor by inserting a balloon device
- c. Premature delivery via caesarean section**
- d. Waiting tactics
- e. Treatment of placental insufficiency with follow-up dopplerometry

118. A 12-year-old girl complains of general weakness, rapid fatigability, and intense periodical pain in her upper abdomen. The pain occurs immediately after eating or 15-20 minutes later. Periodically, she develops pain at night, sour eructation, and vomiting with just eaten food. According to the patient's medical history, she has been suffering from chronic gastritis for the past 3 years. The patient's father has a long history of peptic ulcer disease of the duodenum. Objectively, the patient's skin is pale, the tongue has a white coating, the abdomen is soft and painful in the epigastrium during palpation. Mendel's sign is positive. What is the most likely diagnosis in this case?

- a. Chronic gastroduodenitis
- b. Peptic ulcer disease of the stomach**
- c. Crohn's disease
- d. Chronic pancreatitis
- e. Functional dyspepsia

119. A person fell from a ladder from the height of 2 m. An emergency medicine physician suspects a vertebral compression fracture at the level of L1-L2. Objectively, the blood pressure is 100/60 mm Hg, the pulse is 104/min. What aid must be provided to the person at the scene of the accident?

- a. Transportation into the inpatient department in the position lying on the side
- b. Analgesia, antishock therapy, transportation into the inpatient department
- c. Analgesia, transportation into a hospital on hard stretchers**
- d. Schneck's vertebral anesthesia, transportation into the inpatient department
- e. Analgesics intramuscularly, transportation in a sitting position

120. A 25-year-old man complains of weakness, progressive shortness of breath, and leg edemas. Previously, he was healthy, but recently he has been taking ibuprofen for his sprained ankle ligaments. Objectively, his pulse is 90/min., blood pressure is 180/100 mm Hg. The heart sounds are sonorous. In the lungs, the percussion sound is dull in the lower right segment. The liver is +3 cm. In the blood: Hb - 103 g/L, leukocytes -  $6.7 \cdot 10^9 / L$ , platelets -  $236 \cdot 10^9 / L$ , urea - 24.6 mmol/L, creatinine - 0.254  $\mu$ mol/L,  $Na^+ - 135$  mmol/L,  $K^+ - 5.6$  mmol/L, albumin - 27 g/L. Chest X-ray shows right-sided pleurisy, the heart is normal. What pathological condition is observed in the patient?

- a. Acute pyelonephritis
- b. Renal tuberculosis
- c. Nephritic syndrome
- d. Acute renal failure
- e. Nephrotic syndrome**

121. In the morning, an 8-year-old girl started complaining of general weakness and pain during swallowing. At midday, her parents called for a doctor, because the girl's weakness was progressing and she developed a bilateral swelling slightly below and in front of her ears. Make the diagnosis:

- a. Lymphadenopathy**
- b. Mumps**
- c. Tumor of the carotid body
- d. Dermoid cysts
- e. Tumor of the salivary glands

122. A 37-year-old woman complains of constricting retrosternal pain that occurs every day at the same time in the morning. The pain occurs in the absence of provoking factors. Holter monitoring data show ST segment elevation in leads V1-V3 during a pain attack. Without pain syndrome, there are no pathological changes on the ECG. What is the most likely diagnosis in this case?

a. Exertional angina pectoris, functional class III

**b. Prinzmetal angina pectoris**

c. Unstable angina pectoris

d. First episode of angina pectoris

e. Progressive angina pectoris

123. In the morning upon waking a 65-year-old patient developed weakness in the right-side limbs, speech disorder, decreased sensitivity of the left side of the body. On examination: conscious, BP- 100/60 mm Hg, motor aphasia, right-sided central hemiparesis and hemihypalgesia. Make the preliminary diagnosis:

a. Brain tumor

**b. Ischemic stroke**

c. Subarachnoid hemorrhage

d. Encephalitis

e. Hemorrhagic stroke

124. 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. Cytolytic syndrome

**b. Acute hepatic failure**

c. Cholestatic syndrome

d. Portal hypertension

e. Hepatorenal syndrome

125. A 35-year-old woman was hospitalized after an attack of intense abdominal pain that occurred suddenly after minor physical exertion. During the examination, the woman lies motionless on a stretcher and speaks reluctantly, because during the conversation the pain intensifies. The abdomen is tense on palpation. There are positive signs of peritoneal irritation in all abdominal regions.

Abdominal X-ray detects air under the dome of the diaphragm. What is the most likely diagnosis in this case?

a. Intestinal obstruction

**b. Perforated ulcer of the stomach or duodenum**

c. Tuberculous peritonitis

d. Appendicular abscess

e. Strangulated internal abdominal hernia

126. 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. Urachal cyst

b. Vesico-umbilical fistula

c. Bladder agenesis

d. Bladder diverticulum

**e. Bladder exstrophy**

127. A woman, who works at a pig farm, against the background of complete health developed sudden chills, fever of  $39.9^{\circ}\text{C}$ , intense headache, and nausea. The next day, she noted a pain in her leg muscles and nosebleeds. Objectively, on the 3rd day after the onset of the disease the woman's condition is severe, her face is hyperemic, she has scleritis and subicteric sclerae. The liver is +3 cm. 24-hour urine output is 700 mL. Make the diagnosis:

**a. Leptospirosis**

b. Influenza

- c. Hemorrhagic fever with renal syndrome
- d. Viral hepatitis
- e. Yersiniosis

128. A 38-year-old man has been for many years suffering from epilepsy. Three days ago he had an episode of clouded consciousness that started suddenly and was accompanied by anger. In this state he was speaking nonsense, breaking furniture, and hit his wife. He remained in this state for about an hour, after which he fell asleep. Later he was claiming that he didn't remember any of the events that had happened during the episode. What is the most likely definition of this condition?

- a. Trance
- b. Twilight state**
- c. Fugue state
- d. Ambulatory automatism
- e. Amentive state

129. For the last 2 months, a 29-year-old woman has been complaining of chest pain on the left, cough, shortness of breath, and fever of  $39.6^{\circ}\text{C}$ . Objectively, the left half of her chest lags behind in the act of breathing, her vesicular respiration is weakened, and there is a shortening of the percussion sound on the left. X-ray shows a round shadow in the lower lobe of the left lung. Make the diagnosis:

- a. Chronic pneumonia
- b. Lung abscess**
- c. Purulent pleurisy
- d. Lung cancer
- e. Pleural empyema

130. A 50-year-old patient suddenly developed a "piercing" headache, psychomotor agitation, and vomiting during physical exertion. Examination detects positive Kernig's sign and nuchal rigidity, focal symptoms are absent. Blood pressure - 200/120 mm Hg. What is the most likely diagnosis in this case?

- a. Cerebral infarction
- b. Subdural hematoma
- c. Meningitis
- d. Encephalitis
- e. Subarachnoid hemorrhage**

131. A healthy newborn baby whose mother is HBsAg-positive (+) needs to receive hepatitis B vaccination in the maternity hospital. What would be the optimal vaccination tactics in this case?

- a. Administer only hepatitis B immunoglobulin
- b. The child is already infected and therefore does not need to be vaccinated
- c. Administer the first dose of the vaccine within 24 hours after birth, administer the second and the third dose at the age of 2 and 6 months, respectively**
- d. Hepatitis B vaccine must be administered after 1 year
- e. The child can be administered hepatitis B immunoglobulin after determining the HBsAg status

132. A 56-year-old patient complains of pain in the epigastrium after eating, eructation, loss of appetite, slight loss of weight, fatigability. The patient smokes; no excessive alcohol consumption. Objectively: pale mucosa, BP- 110/70 mm Hg. The tongue is "lacquered". The abdomen is soft, sensitive in the epigastric area. Blood test: erythrocytes - 3,0 T/l, Hb- 110 g/l, color index - 1,1; macrocytosis; leukocytes - 5,5 g/l, ESR- 13 mm/hour. On fibrogastroduodenoscopy: atrophy of fundic mucosa. What pathogenesis does this disorder have?

- a. Chemical factor
- b. Alimentary factor
- c. *emphH.pylori* persistence
- d. Producing antibodies to parietal cells**
- e. Gastropathic effect

133. A woman is 40 weeks pregnant. The fetus is in the longitudinal lie and cephalic presentation.

Pelvic size: 26-29-31-20. Expected weight of the fetus is 4800 gram. The labor contractions has been lasting for 12 hours, within the last 2 hours they were extremely painful, the parturient woman is anxious. The waters broke 4 hours ago. On external examination the contraction ring is located 2 finger widths above the navel, Henkel-Vasten sign is positive. Fetal heart rate is 160/min., muffled. On internal examination the uterine cervix is fully open, the head is engaged and pressed to the entrance into the lesser pelvis. What is the most likely diagnosis?

- a. Threatened uterine rupture
- b. Complete uterine rupture
- c. Anatomically contracted pelvis
- d. Hyperactive uterine contractions
- e. Abruptio of the normally positioned placenta

134. 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. Chronic disseminated pulmonary tuberculosis
- b. Sarcoidosis
- c. Miliary pulmonary tuberculosis
- d. Caseous pneumonia
- e. Focal tuberculosis

135. A 28-year-old woman complains of headache, general weakness, elevated body temperature, impaired nasal breathing, and purulent discharge from her left nostril. Anterior rhinoscopy detects hyperemia and edema of the nasal mucosa on the left and pus in the middle nasal meatus. What is the most likely diagnosis in this case?

- a. Posterior ethmoiditis
- b. Diphtheria
- c. Acute rhinitis
- d. Maxillary sinusitis
- e. Sphenoiditis

136. 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. Sedimentation
- b. Ozonation
- c. Decontamination
- d. Softening
- e. Desalination

137. A 42-year-old man complains of a spot that appeared on his left arm and transformed into a pustule with a black bottom over the course of 24 hours. The patient is a farmer. Objectively, his arm is noticeably edematous, the pustule is painless when touched and is surrounded by a rim of daughter vesicles on its periphery. Body temperature - 39.7°C, blood pressure - 90/60 mm Hg, pulse - 110/min. What is the most likely diagnosis in this case?

- a. Anthrax
- b. Brucellosis
- c. Tularemia
- d. Plague
- e. Nonspecific lymphadenitis

138. 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. Functional cardiopathy

b. Hypertrophic cardiomyopathy

c. Infectious myocarditis

d. Somatoform autonomic dysfunction

e. Exudative pericarditis

139. During the transfusion of 400 mL of packed erythrocytes, a 35-year-old man developed general anxiety, short-term agitation, lumbar and retrosternal pain, dyspnea, cyanosis, and tachycardia of 110/min. His blood pressure decreased to 90/40 mm Hg. What is the most likely diagnosis in this case?

a. Hemotransfusion shock

b. Massive transfusion syndrome

c. Allergic reaction

d. Citrate intoxication

e. Pulmonary thromboembolism

140. A postparturient woman came to a doctor on the 14th day after giving birth. She complains of a sudden pain, hyperemia, and induration in her left breast, fever of 39°C, headache, and indisposition. Objectively, there is a fissure in the nipple, the left breast is enlarged, during its palpation the pain intensifies. What pathology can be suspected in this case?

a. Phlegmon of the breast

b. Suppurated cyst of the left breast

c. Fibroadenoma of the left breast

d. Breast cancer

e. Lactational mastitis

141. 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 lymphangitis of the left shin

b. Acute disturbance of the cerebral blood flow

c. Postoperative allergic reaction

d. Acute postoperative thrombosis of the deep veins in the left shin

e. Acute postoperative thrombosis of the popliteal artery on the left

142. A 63-year-old man complains of unmotivated weakness and pressing and bursting sensation in the left subcostal area. According to him, these signs have been present for a year already. Previously he was healthy. He took part in containment measures during the accident at the Chernobyl Nuclear Power Plant. Objectively: the skin is pale, peripheral lymph nodes are not enlarged, the liver is +3 cm, the spleen is +10 cm. Complete blood count: erythrocytes -  $3.1 \cdot 10^{12}/L$ , Hb- 100 g/L, leukocytes -  $46 \cdot 10^9/L$ , blasts - 2%, promyelocytes - 10%, myelocytes - 18%, band neutrophils - 27%, segmented neutrophils - 10%, lymphocytes - 12%, eosinophils - 6%, basophils - 3%, monocytes - 2%, erythrocyte sedimentation rate - 20 mm/hour. What is the most likely diagnosis?

a. Chronic lymphatic leukemia

b. Chronic myeloleukemia

c. Hemolytic anemia

d. Acute leukemia

e. Hepatic cirrhosis

143. Having examined a 52-year-old patient, the doctor diagnosed him with obesity (body mass index - 34 kg/m<sup>2</sup>, waist circumference - 112 cm) and arterial hypertension (170/105 mm Hg). 2-hour postprandial blood sugar is 10.8 mmol/L. What biochemical blood analysis needs to be conducted to diagnose the patient with metabolic syndrome X?

a. Calcium and phosphorus

b. Creatinine and urea

c. Bilirubin

d. Electrolytes

e. Lipid profile

144. 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 long-acting insulin
- b. Continue the present scheme of therapy
- c. Prescription of an insulin mixture
- d. Prescription of a short-acting insulin**
- e. Prescription of glurenorm (gliquidone)

145. A 25-year-old parturient woman is hospitalized with contractions that have been occurring for 12 hours already. The contractions last 25 seconds, while the intervals between them last 3-4-7 minutes. The contractions are irregular and sharply painful, with pain spreading upwards from the lower uterine segment. The baby is in the cephalic presentation, the head is pressed to the entrance into the lesser pelvis. Uterine hypertonus is observed. Internal obstetric examination shows that the cervix is smoothed out and the opening of the external orifice of uterus is 3 cm. The amniotic sac is intact. Make the provisional diagnosis:

- a. Physiological course of the labor
- b. Primary weakness of the labor activity
- c. Cervical dystocia
- d. Secondary weakness of the labor activity
- e. Discoordinated labor activity**

146. A 48-year-old farmer was hospitalized with complaints of headache, nausea, wet cough, problematic breathing, impaired vision, excessive sweating, and salivation. He worked in a team that treated gardens with organophosphorus pesticides. In the blood: erythrocytes -  $4.1 \cdot 10^{12}/L$ , Hb - 136 g/L, color index - 0.9, leukocytes -  $13.0 \cdot 10^9/L$ , ESR - 17 mm/hour. He was diagnosed with acute intoxication caused by organophosphorus pesticides. What is the most important diagnostic criterion of this pathology?

- a. Thrombocytopenia
- b. Anemia
- c. Leukocytosis
- d. Decreased cholinesterase levels**
- e. Reticulocytosis

147. A 2-year-old child with persisting cough and subfebrile body temperature after a case of URTI developed dyspnea, cyanosis of the nasolabial triangle, percussion dullness and weakened respiration in the lower lobe of the right lung, and a slight mediastinal displacement to the left. What pulmonary pathology is likely to cause this clinical presentation?

- a. Bronchitis
- b. Atelectasis
- c. Pneumonia
- d. Emphysema
- e. Pleurisy**

148. In a maternity hospital a newborn had been presenting with cough attacks after eating. The child was discharged from the hospital on the 18th day due to a case of pneumonia. During the further 1,5 months the child had 2 cases of pneumonia. Periodically there are cough attacks after eating, especially if the child lies on the left side. Objectively: the II degree hypotrophy, isolated moist crackles, dyspnea. Stool and diuresis are not disrupted. What diagnosis is most likely?

- a. Tracheobronchomalacia
- b. Hernia of the esophageal opening
- c. Mucoviscidosis
- d. Posthypoxic encephalopathy
- e. Tracheoesophageal fistula**

149. A 48-year-old man complains of stool 2-3 times a day, with a large amount of foul-smelling feces,

which is accompanied by a pain in the umbilical region, hair loss, and paresthesias. Examination shows pale skin, low body mass, and leg edema. Palpation of the umbilical region and intestine is painful. Blood test shows anemia; stool test shows steatorrhea, creatorrhea, amylorrhea. What syndrome can be observed in the patient?

- a. Malabsorption syndrome
- b. Afferent loop syndrome
- c. Hypercatabolic exudative enteropathy syndrome
- d. Zollinger-Ellison syndrome
- e. Dumping syndrome

150. A 20-year-old woman complains that for the last three years she has been observing a cold feeling in her fingers. First 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. Polyneuritis
- b. Raynaud syndrome
- c. Arteriosclerosis obliterans
- d. Obliterating endarteritis
- e. Thromboangiitis obliterans (Buerger disease)

151. An ambulance has brought in the victim of an accident, who has fallen from a height. This person has clinical signs of multiple fractures in the both legs. Objectively, the patient's condition is severe; the patient is conscious, but mentally sluggish; the skin is pale gray; the forehead is covered in a cold sweat. The patient's breathing is shallow, with respiratory rate of 30/min., blood pressure - 80/60 mm Hg, pulse - 120/min., shallow. What complication has occurred in this person?

- a. Traumatic shock, degree 2
- b. Traumatic shock, degree 1
- c. Traumatic shock, degree 3
- d. Traumatic shock, degree 4
- e. Syncope

152. A 3-year-old child has developed a cough and runny nose. Two other family members have the same signs. On the third day after the onset of the disease, the cough intensified and became dry and persistent. The temperature increased to 37.8°C. Objectively, the act of breathing involves the auxiliary muscles. Percussion produces a banbox resonance bilaterally in the lungs. Breathing is harsh, expiration is prolonged, there are moderate and large bubbling wheezes. The wheezes are diffuse and mostly wet, though in some places they are dry. Make the diagnosis:

- a. Bilateral bronchopneumonia
- b. Acute obstructive bronchitis
- c. Bronchial asthma
- d. Acute bronchiolitis
- e. Stenosing laryngotracheitis

153. A 37-year-old woman complains of enlarged cervical and mediastinal lymph nodes. Blood test detects the ESR of 35 mm/hour. Lymph node biopsy detects a granuloma that consists of epithelial giant cells without caseous necrosis. What is the most likely diagnosis in this case?

- a. Erythroleukemia
- b. Lymph nodes tuberculosis
- c. Sarcoidosis
- d. Lymphogranulomatosis
- e. Infectious mononucleosis

154. In a 70-year-old woman, chest fluorography shows a shadow of a heterogeneous structure over the left dome of the diaphragm. X-ray with contrast detects the abdominal segment of the esophagus in the chest cavity. What is the most likely diagnosis in this case?

- a. Esophagitis
- b. Esophageal diverticulum
- c. Benign esophageal tumor

- d. Hiatal hernia
- e. Achalasia cardia

155. A 9-month-old child with an acute respiratory viral infection was receiving antipyretics in a syrup for 2 days. On the second day, the parents note that their child has developed skin redness, neck edema, hoarseness of the voice, barking cough, difficulty breathing, and agitation. In the family's medical history, the atopic anamnesis is complicated on the father's side. What is the most likely diagnosis in this case?

- a. Acute stenosing laryngitis
- b. Urticaria
- c. Quincke's edema
- d. Acute epiglottitis
- e. Bronchiolitis

156. Throughout the last year a 27-year-old man notes fatigue, excessive sweating, and heaviness in his left subcostal region, especially after eating. Objectively, his spleen and liver are enlarged. In clinical blood test: erythrocytes -  $3.2 \cdot 10^{12}/L$ , Hb - 100 g/L, color index - 0.87, leukocytes -  $100 \cdot 10^9/L$ , basophils - 7%, eosinophils - 5%, monocytes - 15%, juvenile - 16%, band neutrophils - 10%, segmented neutrophils - 45%, lymphocytes - 2%, monocytes - 0%, reticulocytes - 0.3%, platelets -  $400 \cdot 10^9/L$ , ESR - 25 mm/hour. Make the diagnosis:

- a. Chronic lymphocytic leukemia
- b. Acute leukemia
- c. Chronic myelogenous leukemia
- d. Erythremia (polycythemia vera)
- e. Hepatic cirrhosis

157. 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. Uric acid infarction
- b. Physiological jaundice
- c. Toxic erythema
- d. Physiological weight loss
- e. Transient dysbiosis

158. After a case of purulent otitis a 1-year-old boy has developed pains in the upper third of the left thigh, body temperature up to  $39^{\circ}\text{C}$ . Objectively: swelling of the thigh in its upper third and smoothed out inguinal fold. The limb is in semiflexed position. Active and passive movements are impossible due to severe pain. What diagnosis is most likely?

- a. Brodie's abscess
- b. Acute hematogenous osteomyelitis
- c. Osteosarcoma
- d. Acute coxitis
- e. Intermuscular phlegmon

159. Examination of a newborn girl detects a hemorrhage on the child's head. The hemorrhage is limited to one cranial bone, does not pulsate, and is painless. What condition did the child develop?

- a. Intracranial birth injury
- b. Hydrocephalus
- c. Neonatal pemphigus
- d. Cephalohematoma
- e. Physiological birth-related edema

160. On the fifth day after a full-term birth, a postparturient woman developed a fever of  $38.8^{\circ}\text{C}$ , abdominal pain, and general weakness. Objectively, her blood pressure is 120/80 mm Hg, pulse is 100/min. The breasts are moderately distended. The abdomen is soft and participates in the act of breathing. The uterine fundus is located three finger-widths below the navel. Vaginal examination shows that the cervix allows inserting one finger; the uterus is soft, painful, and enlarged to 13 weeks

of pregnancy. There is a seropurulent foul-smelling discharge from the genital tracts. Make the diagnosis:

- a. Septic shock
- b. Uterine subinvolution
- c. Postpartum purulent metroendometritis
- d. Lactostasis
- e. Postpartum endometritis

161. A 5-year-old girl was hospitalized with complaints of pain and swelling in the right knee joint, temperature rise up to  $38.4^{\circ}\text{C}$  and a rash diagnosed as erythema annulare centrifugum. The signs developed 3 days after the recovery from a case of acute respiratory disease. Name the etiotropic drug to be prescribed:

- a. Metypred (Methylprednisolone)
- b. Methotrexate
- c. Augmentin
- d. Diclofenac sodium
- e. Captopril

162. A 48-year-old woman has thermal burns of both hands. The epidermis of the palms and backs of her hands is exfoliating, and blisters filled with serous liquid are forming. The forearms are intact.

What diagnosis is most likely?

- a. 2-3A degree thermal burn
- b. 1 degree thermal burn
- c. 3B degree thermal burn
- d. 1-2 degree thermal burn
- e. 4 degree thermal burn

163. A 65-year-old man complains of cough attacks that occur when he eats liquid foods. Three months ago he was diagnosed with a carcinoma in the upper third of the esophagus. He underwent radiation therapy. What complication developed in this man?

- a. Tracheoesophageal fistula
- b. Perforation of a gastric cardia ulcer
- c. Lung abscess rupture into the pleural cavity
- d. Tracheal stenosis
- e. Spontaneous pneumothorax

164. 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. Pathological climacteric syndrome
- b. Alimentary obesity
- c. Essential hypertension
- d. Cushing disease
- e. Cushing syndrome

165. When examining blood coagulation system of a man before a surgery, he was found to have a deficiency of factor VIII - antihemophilic globulin A) What disease is it?

- a. Hemophilia C
- b. Hemophilia A
- c. Hemorrhagic angiomas
- d. Hemophilia B
- e. Hemorrhagic vasculitis

166. A 54-year-old man was hospitalized with complaints of a sudden severe headache in the back of his head and vomiting. He has a history of moderate hypertension and takes hypotiazide. Three days

ago he came to a therapist, complaining of an intense headache, which was relieved with an analgesic. Objectively, his consciousness is clouded and his left pupil is dilated. He presents with marked photophobia, tense neck muscles, and left-sided hemiparesis with increased muscle tone and reflexes. His temperature is low. No rash is observed in the patient. His blood pressure is 230/130 mm Hg, pulse - 50/min., respiratory rate - 12/min. Make the diagnosis:

- a. Multiple sclerosis
- b. Acute bacterial meningitis
- c. Migraine
- d. Acute subdural hematoma
- e. Myasthenia

167. Within 2-3 hours, a 58-year-old man developed multiple spots in his vision, after which the vision in his right eye darkened. Examination detects eccentric visual acuity of 0.02. The pupil is moderately dilated, its direct response to light is reduced. Ophthalmoscopy detects multiple hemorrhages of varying size and shape on the fundus of the eye ("squashed tomato" sign), the optic disc is edematous and hyperemic. The patient has a history of essential hypertension of II B degree. What is the most likely diagnosis in this case?

- a. Hypertensive angiopathy
- b. Hypertensive angioneuropathy
- c. Diabetic retinopathy
- d. Embolism of the central retinal artery
- e. Thrombosis of the central retinal vein

168. A 38-year-old woman came to a dermatologist complaining of dry and peeling skin. Examination reveals a papular rash and fine peeling on the extensor surfaces of her knee and elbow joints; in the area of hair follicles there are wax-colored nodules that rise from the skin. These clinical signs are likely caused by insufficient dietary intake of the following substance:

- a. Pyridoxine
- b. Riboflavin
- c. Retinol
- d. Ascorbic acid
- e. Thiamine

169. A 25-year-old woman at 38 weeks of her pregnancy complains of headache, pain in the epigastric region, drowsiness, and leg edemas. Her somatic history is normal. Objectively, her blood pressure is 180/120 mm Hg, the fetus is in a longitudinal lie, cephalic presentation, fetal heart rate - 130/min, rhythmic. Urinalysis detects protein levels of 3.3 g/L. What complication of pregnancy has developed in the patient?

- a. Moderate preeclampsia
- b. Eclampsia
- c. Severe preeclampsia
- d. Epilepsy
- e. Hypertensive crisis

170. A 7-year-old boy fell ill 2 weeks ago, when he developed a runny nose. An otolaryngologist was consulted about sanguinopurulent discharge from the child's nose and maceration of his wings of the nose and upper lip. Rhinoscopy detects whitish-gray foci on the nasal septum. The oropharyngeal mucosa is without changes. Make the diagnosis:

- a. Allergic rhinitis
- b. Maxillary sinusitis
- c. Adenovirus infection
- d. Nasal diphtheria
- e. Rhinovirus infection

171. 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. Acute pharyngitis
- b. Infectious mononucleosis
- c. Peritonsillar abscess
- d. Lacunar tonsillitis
- e. Tonsillar tumor

172. A well is dug on a rural landplot. It is located at the distance of 20 meters from the house, 10 meters from the toilet, and 15 meters from the neighbor's house. What is the minimum permissible distance between the well and the source of possible water pollution, according to the sanitary norms?

- a. 25 meters
- b. 30 meters
- c. 10 meters
- d. 20 meters
- e. 15 meters

173. A 12-year-old boy has some functional and morphological abnormalities (myopia - 0.5 D). He has no chronic diseases. During the last year, he had 5 cases of respiratory diseases. What health group is it?

- a. First
- b. Fifth
- c. Second
- d. Fourth
- e. Third

174. At a factory with harmful working conditions, a complex of measures is being taken to reduce the morbidity among the workers. For better effect, the factory doctor separately monitors a group of people, who fall ill frequently and for a long time. What type of morbidity requires distinguishing such a group of people?

- a. General morbidity
- b. Morbidity associated with acute infections
- c. Morbidity associated with major non-communicable diseases
- d. Morbidity with temporary disability
- e. Hospitalized morbidity

175. Approximately 40 % of patients with bacterial pneumonia develop concomitant pleural effusion. This diagnosis can be confirmed by chest X-ray in the direct vertical projection, if there is at least:

- a. -
- b. 500 mL of liquid
- c. 300 mL of liquid
- d. 200 mL of liquid
- e. 100 mL of liquid

176. The body of a 35-year-old man was found in a forest, hanging from a noose tied to a tree branch. Face and neck tissues of the deceased are cyanotic, while the legs are normally colored. The ligature mark is closed and clearly defined. What are the cause and manner of death in this case?

- a. Mechanical asphyxia as the result of airway obstruction, the manner of death - homicide
- b. Mechanical asphyxia as the result of strangulation by a noose, the manner of death - homicide
- c. Mechanical asphyxia as the result of hanging, the manner of death - non-homicide
- d. Mechanical asphyxia as the result of chest and abdomen compression, the manner of death - homicide
- e. Mechanical asphyxia as the result of strangulation by a noose, the manner of death - non-homicide

177. A woman at 12 weeks of her pregnancy developed a pain in her lower abdomen and mild bloody discharge that occurred with no apparent reason. Vaginal examination shows well-formed cervix with closed external orifice. The body of the uterus is enlarged according to her term of pregnancy. Make the diagnosis:

- a. Anembryonic pregnancy
- b. Imminent miscarriage
- c. Incomplete miscarriage
- d. Ongoing miscarriage
- e. Threatened miscarriage

178. 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. Catathermometer
- b. Alcohol thermometer
- c. Black ball thermometer
- d. Mercury thermometer
- e. Thermograph

179. A 42-year-old man complains of a lack of pain and thermal sensitivity in his left arm and in the left half of his chest, which causes him to receive burns that take a very long time to heal. According to the patient's medical history, the symptoms started without any apparent cause and have been increasing throughout the last 5 years. Neurological examination revealed a segmental dissociated sensory disturbance in C<sub>3</sub> - Th<sub>7</sub> segment on the left. What is the most likely diagnosis in this case?

- a. Syringomyelia
- b. Spinal ischemic stroke
- c. Amyotrophic lateral sclerosis
- d. Dermatomyositis
- e. Left-sided total brachial plexitis

180. A 30-year-old woman complains of menstruations missing for a year. She has a history of a massive postpartum hemorrhage. Objectively, her secondary sex organs are normally developed, the hair growth pattern is of the female type. Bimanual examination detects normal uterus and uterine appendages. What is a possible cause of amenorrhea in this case?

- a. Adrenocortical necrosis
- b. Thyroid disorder
- c. Pituitary necrosis
- d. Ovarian insufficiency
- e. Hypothalamic insufficiency

181. A 38-year-old patient complains of a fever of 39<sup>o</sup>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 12·10<sup>9</sup>/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. Nephrolithiasis
- b. Renal tuberculosis
- c. Acute glomerulonephritis
- d. Acute pyelonephritis
- e. Acute cystitis

182. A 40-year-old man claims that his wife is cheating on him and presents a "proof" of her infidelity. He repeatedly initiated scandals with his wife at home and at work, demanding that she confess her infidelity, insulted her, and threatened to kill her. What preventive measures should be taken against socially dangerous actions on his part?

- a. Consultation with the general practitioner
- b. Outpatient treatment
- c. Consultation with the psychiatrist
- d. Family counseling
- e. Consultation with the psychologist

183. A 56-year-old patient with diffuse toxic goiter has ciliary arrhythmia, heart rate is 110-120/min..

arterial hypertension, BP is 165/90 mm Hg. What drug besides Mercazolil (Thiamazole) should be prescribed in this case?

- a. Novocainamide (procainamide)
- b. Verapamil
- c. Propranolol
- d. Radioactive iodine
- e. Corinfar

184. A 34-year-old woman complains of pain and stiffness throughout the day in the small joints of her hands and feet, as well as in her knee and ankle joints. According to the patient's medical history, the disease onset was 4 years ago, when she first developed pain and swelling in the small joints of the hands and feet and a fever of 38°C. Six months after the onset of the disease, she developed deformation of the joints in her hands and their limited mobility. Objectively, marked muscle atrophy is observed on the backs of her hands and in her knees and thighs. Blood pressure - 110/65 mm Hg, pulse - 92/min. Blood test results: rheumatoid factor - ++, seromucoid - 0.375 units, CRP - +++. X-ray of the hands reveals osteoporosis, narrowing of the joint spaces, and erosions (usurations) in the wrist joints. What is the most likely diagnosis in this case?

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

185. A 27-year-old woman complains of a rash that appeared in her axillary region. According to the patient's medical history, the disease onset was 5 days ago. Examination detects soft painful nodules covered with reddened skin in the axillary region. Some of the nodules are perforated, forming an opening that discharges pus. Some of the nodules merge together. Palpation provokes tenderness in the area of the nodules. The general body temperature is elevated to 37.5°C. What is the most likely diagnosis in this case?

- a. Scabies
- b. Furunculosis
- c. Atopic dermatitis
- d. Hidradenitis
- e. Erythrasma

186. On the third day after the primary surgical debridement of a gunshot wound in the soft tissues of the thigh, the patient's condition suddenly became worse. The patient complains of bursting pain in the wound that has been intensifying for the last 5 hours. The edema of the skin and subcutaneous tissue increases rapidly. The edges of the wound are gaping. The muscles that the day before were viable now resemble "boiled meat", protrude into the wound, are dull-colored, have a dirty-gray coating, and fall apart when grasped with tweezers. What type of infection has developed in the thigh wound?

- a. Erysipelas
- b. Anaerobic infection
- c. Aerobic Gram-negative wound infection
- d. Wound diphtheria
- e. Purulent wound infection

187. A woman was hospitalized with complaints of periodical pain in her lower abdomen that intensifies during menstruation, as well as weakness, indisposition, nervousness, and smearing discharge of dark blood from the vagina before and after menstruation. Bimanual research shows enlarged uterine body, the uterine appendages cannot be detected, the surface of the posterior fornix is tuberous. Laparoscopy detects cyanotic inclusions on the ovaries, in the recto-uterine pouch of the peritoneal cavity, and on the paraproctum. Make the diagnosis:

- a. Chronic salpingitis
- b. Genital tuberculosis
- c. Disseminated endometriosis

- d. Polycystic ovaries
- e. Ovarian cystoma

188. 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. Oxytocin
- b. Dexamethasone
- c. Misoprostol
- d. Gynipral (hexoprenaline)
- e. Progesterone

189. A 69-year-old man complains of a blood pressure increase up to 150/90 mm Hg. The patient has a history of benign prostatic hyperplasia. What medicine should be prescribed for this patient to correct his blood pressure?

- a. Lisinopril
- b. Doxazosin
- c. Propranolol
- d. Nifedipine
- e. Verapamil

190. A 68-year-old patient complains of shortness of breath during physical exertion and cough that produces mucous sputum. The patient has a history of chronic obstructive pulmonary disease. Objectively, auxiliary muscles are involved in the act of breathing, the neck veins distend on inspiration, percussion produces a banbox resonance over the lungs, the respiration is vesicular and weakened. Chest X-ray shows flattening of the diaphragm and a pulmonary pattern with a decreased number of elements. What is the most likely diagnosis in this case?

- a. Pulmonary edema
- b. Emphysema of the lungs
- c. Pneumonia
- d. Atelectasis of both lungs
- e. Bilateral pneumothorax

191. A 30-year-old man was delivered to a neurosurgical department with complaints of constant headaches, nausea, vomiting, fever, weakness of the right-side limbs. Anamnesis states that one month ago the patient had a surgery for left-sided suppurative otitis and mastoiditis. He has been undergoing treatment in an ENT department. Approximately 2 weeks ago the temperature increased, and the patient developed headaches. Objectively: heart rate - 98/min., BP- 140/90 mm Hg, temperature - 38,3<sup>o</sup>C) Neurologically pronounced stiff neck: bilateral Kernig's symptom, unsteadiness during the Romberg's maneuver. Computer tomography of the brain revealed a three-dimensional growth with a capsule in the left hemisphere. Make the diagnosis:

- a. Hydrocephalus
- b. Cerebral abscess
- c. Hemorrhage
- d. Arnold-Chiari malformation
- e. Echinococcus

192. A 39-year-old man came to a doctor complaining of a pain in his left leg. The disease onset was 2 days ago. Objectively, his body temperature is 37.8<sup>o</sup>C and he has subcutaneous varicose veins on the inner surface of his left thigh and shin. The skin over the varicose veins is hot and red. The Moses and Homans signs are negative. What is the most likely diagnosis in this case?

- a. Thrombosis of the tibial arteries on the left
- b. Postthrombotic syndrome of the left leg
- c. Acute ascending thrombophlebitis of the saphenous veins in the left leg
- d. Varicose saphenous veins in the left leg
- e. Acute deep vein thrombosis in the left leg

193. A 5-year-old boy has been hospitalized unconscious. According to his parents, the child has a 2-year-long history of severe decompensated type 1 diabetes mellitus. Objectively, the skin is dry, its

turgor is reduced, there is a smell of acetone from the oral cavity, Kussmaul breathing is observed. Blood pressure - 100/60 mm Hg, heart rate - 100/min. Blood glucose - 16.4 mmol/L. What type of coma has developed in the child?

- a. Hyperosmolar coma
- b. Ketoacidotic coma
- c. Hypoglycemic coma
- d. Cerebral coma
- e. Lactic acid coma

194. 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. Turner syndrome
- c. Edwards syndrome
- d. Patau syndrome
- e. Down syndrome

195. An 89-year-old man presents with ischemic heart disease, stable exertional angina pectoris (functional class II), and essential hypertension (stage 2, degree 2). He continuously takes lisinopril, bisoprolol, aspirin, and rosuvastatin. The patient complains that he has developed dry cough that occurs mainly in the morning. What medicine has caused the cough?

- a. Rosuvastatin
- b. -
- c. Bisoprolol
- d. Lisinopril
- e. Aspirin

196. 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. Pulmonary histiocytosis X
- b. Hand-Schuller-Christian disease
- c. Exogenous allergic alveolitis
- d. Idiopathic pulmonary hemosiderosis
- e. Idiopathic pulmonary fibrosis

197. A 39-year-old man suffers from chronic rheumatic heart disease. He complains of dyspnea during physical exertion, cough with expectoration, and palpitations. Auscultation detects intensified I heart sound and diastolic murmur; the sound of opening mitral valve can be auscultated at the cardiac apex. The II heart sound is accentuated over the pulmonary artery. The patient is cyanotic. X-ray shows dilated pulmonary root and enlargement of the right ventricle and left atrium. What is the most likely diagnosis?

- a. Pulmonary artery stenosis
- b. Aortic stenosis
- c. Mitral stenosis
- d. Coarctation of the aorta
- e. Patent ductus arteriosus

198. External obstetric examination shows the the mother's belly is ovoid; the fetal back can be palpated in the left lateral portion of the uterus, in the right portion there are fetal small parts, and at the uterine fundus there is a firm ballotting part. Fetal heartbeat can be heard on the left, above the navel. What are the lie, position, and presentation of the fetus?

- a. Longitudinal lie, position II, cephalic presentation
- b. Transversal lie, position I, no presenting part
- c. Longitudinal lie, position II, breech presentation

- d. Longitudinal lie, position I, cephalic presentation
- e. Longitudinal lie, position I, breech presentation

199. Palpation of the thyroid gland of a 40-year-old woman detects a dense and moderately painful nodule in the left lobe. Ultrasound shows the nodule to have high density, while scintigraphy with  $^{131}\text{I}$  shows it to be a <<cold>> nodule. What study would be the most useful for clarification of the diagnosis in this case?

- a. Reflexometry
- b. Thyroid-stimulating hormone levels in the blood
- c. Thermography
- d. Fine needle aspiration biopsy
- e. Urinary iodine excretion

200. 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. Foodborne toxicoinfection
- b. Food poisoning caused by heavy metals
- c. Food poisoning caused by organochlorine pesticides
- d. Nitrate-nitrite intoxication
- e. Staphylococcal toxicosis