

## Tests KROK2 Internal medicine

A 25-year-old patient complains of general weakness, dry cough, sweating, subfebrile temperature. Objectively: lung auscultation reveals vesicular respiration with no wheezing. Fluorogram shows focal shadows of high intensity in the 1-2 segments of the right lung. Mantoux test gave a reaction of 16 mm of induration. What clinical form of tuberculosis is most likely?

- A Focal
- B Infiltrative
- C Disseminated
- D Tuberculoma
- E Miliary

A 22-year-old patient is a clerk. His working day runs in a conditioned room. In summer he was taken by an acute disease with the following symptoms: fever, dyspnea, dry cough, pleural pain, myalgia, arthralgia. Objectively: moist rales on the right, pleural friction rub. X-ray picture showed infiltration of the inferior lobe. In blood: WBC –  $11 \times 10^9/l$ , stab neutrophils - 6%, segmented neutrophils - 70%, lymphocytes - 8%, ESR - 42 mm/h. What is the ethiological factor of pneumonia?

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

A 43-year-old female patient complains of dyspnea, swelling of legs, abdomen enlargement, pricking heart pain. She has a history of tuberculous bronchadenitis, quinsies. The patient's condition deteriorated 6 months ago. Objectively: cyanosis, bulging neck veins, vesicular breathing. Heart borders are not displaced. Heart sounds are muffled, Ps is 106/min, liver is +4 cm, ascites is present. Low voltage on the ECG has been revealed. Radiograph shows a thin layer of calcium deposits along the left contour of heart. What treatment should be recommended to the patient?

- A Treatment by a cardiac surgeon
- B Digitalis preparations
- C Anti-TB drugs
- D Diuretics
- E Vasodilators, nitrates

A 53-year-old female patient complains of cardiac pain and rhythm intermissions. She has experienced these presentations since childhood. The patient's father had a history of cardiac arrhythmias. Objectively: the patient is in grave condition, Ps- 220 bpm, AP- 80/60 mm Hg. ECG results: heart rate - 215/min, extension and deformation of QRS complex accompanied by atrioventricular dissociation; positive P wave. Some time later heart rate reduced down to 45/min, there was a complete dissociation of P wave and QRST complex. Which of the following will be the most effective treatment?

- A Implantation of the artificial pacemaker
- B beta-adrenoreceptor blocking agents
- C Cholinolytics
- D Calcium antagonists
- E Cardiac glycosides

A 26-year-old female patient has an 11-year history of rheumatism. Four years ago she

suffered 2 rheumatic attacks. Over the last 6 months there have been paroxysms of atrial fibrillation every 2-3 months. What option of antiarrhythmic therapy or tactics should be proposed?

- A Prophylactic administration of cordarone
- B Immediate hospitalization
- C Defibrillation
- D Lidocaine administration
- E Heparin administration

A 49-year-old patient complains of dyspnea, cough. There are no sputum discharges. He has repeatedly used salbutamol and intal but with no effect. Objectively: he is only able to sit while leaning on the table. Cyanosis of face, acrocyanosis are present. Breathing is shallow, laboured, in some parts it cannot be auscultated; there are diffuse rales, expiration is significantly prolonged. Heart sounds are muffled, tachycardia is present. Ps - 112/min, AP- 110/70 mm Hg. Liver is located near the costal arch. There are no peripheral edemata. What is your provisional diagnosis?

- A Status asthmaticus
- B Chronic obstructive bronchitis
- C Bronchiale asthma, moderate gravity
- D Foreign object aspiration
- E Cardiac asthma

Thrombosis of the coronary artery caused myocardial infarction. What mechanisms of injury will be the dominating ones in this disease?

- A Calcium mechanisms
- B Electrolytoosmotic mechanisms
- C Acidotic mechanisms
- D Protein mechanisms
- E Lipid mechanisms

On the second day of the disease a 22-year-old male patient complains of high-grade fever, headache in the region of forehead and superciliary arches, and during eye movement; aching muscles and joints. Objectively: body temperature is 39°C. Face is hyperemic, sclerae are injected. The mucous membrane of the soft palate and posterior pharyngeal wall is bright hyperemic and has petechial hemorrhages. What changes in the hemogram are typical for this disease?

- A Leukopenia
- B Leukocytosis
- C Neutrocytosis
- D Anemia
- E Accelerated ESR

A female patient consulted a dermatologist about the rash on the trunk and extremities. Objectively: interdigital folds, flexor surfaces of wrists and navel region are affected with pairs of nodulo-cystic eruptions and crusts. The rash is accompanied by skin itch that is getting stronger at night. What external treatment should be administered?

- A 20% benzyl benzoate emulsion
- B 5% sulfuric ointment
- C 2% sulfuric paste
- D 5% naphthalan ointment
- E 5% tetracycline ointment

A 54 y.o. male patient suffers from dyspnea during mild physical exertion, cough with sputum which is excreted with difficulty. On examination: diffuse cyanosis. Is Barrel-chest. Weakened vesicular breathing with prolonged expiration and dry whistling rales. AP is 140/80 mm Hg, pulse is 92 bpm, rhythmic. Spirography: vital capacity (VC)/predicted vital capacity- 65%, FEV1/FVC- 50%. Determine the type of respiratory insufficiency (RI).

- A RI of mixed type with prevailing obstruction
- B RI of restrictive type
- C RI of obstructive type
- D RI of mixed type with prevailing restriction
- E There is no RI

An ambulance had been called to a 48-year-old man. According to his relatives, the patient had had three attacks of unconsciousness accompanied by convulsions within 24 hours. On examination the doctor witnessed the following attack: the patient lost consciousness and fell to the floor, developed tonic, then clonic convulsions of trunk and extremities. The attack lasted 1 minute and ended with involuntary urination. Specify the kind of attack:

- A Epileptic seizure
- B Syncope
- C Vegetative crisis
- D Coma
- E Attack of hysteria

A patient is 60 years old, retired, worked as deputy director of a research institute. Behavioural changes appeared 2 years ago after the death of her husband: she stopped looking after herself and leaving the house; then she refused to clean the apartment and cook. Mental status: temporal disorientation. The patient does not understand many of the questions, is confused; does not know how to cook soup or fasten a button. Her speech is characterized by stumbling and logoclonia. She does not recognize doctors, fellow patients. She cries a lot but can not explain the reason for tears. What is the mechanism of this pathology?

- A Atrophy of the cerebral cortex
- B Atherosclerotic changes in cerebral vessels
- C Serotonin deficiency
- D Impaired conversion of dopamine to noradrenaline
- E Disorder of melatonin metabolism

A 26-year-old patient has abused alcohol since the age of 16, needs a morning-after drink to cure hangover. He takes alcohol nearly every day, "a little at a time". Twice a week he gets severely drunk. The patient works as a motor mechanic, over the last 2 years work conflicts have become more frequent. What medical and tactical actions should be taken in this case?

- A Voluntary consultation and treatment at an addiction clinic
- B Compulsory treatment
- C Referral to treatment at an activity therapy centre
- D Referral to medical-social expert commission for assessment of his working ability
- E Consultation with a psychologist

A 47-year-old female patient has an 8-year history of ulcerative colitis, has been treated with glucocorticoids. She complains of cramping pain in the umbilical region and left iliac region which has significantly increased during the past 2 weeks, diarrhea with mucus and blood 4-6 times a day, elevated body temperature up to 38-39°C, headache and pain in the knee joints.

Objectively: the patient is in moderate condition, Ps - 108/min, AP - 90/60 mm Hg; heart and lungs are unremarkable; the tongue is moist; abdominal muscle tone is significantly decreased; peristaltic noises are absent. What complication developed in the patient?

- A Toxic dilatation of the colon
- B Perforation of the colon
- C Enterorrhagia
- D Stricture of the colon
- E Colon carcinoma

A 26-year-old patient with left lower lobe pneumonia experiences an acute chest pain on the left during coughing. Objectively: diffuse cyanosis, extension of the left side of chest. Percussion reveals high tympanitis. Auscultation reveals no respiratory murmurs above the left side of chest. There is a deviation of the right cardiac border towards the midclavicular line. What examination will be the most informative?

- A X-Ray
- B Bronchoscopy
- C Bronchography
- D Pneumotachometry
- E Spirography

A male patient presents with swollen ankles, face, eyelids, elevated AP- 160/100 mm Hg, pulse- 54 bpm, daily loss of albumine with urine- 4g. What therapy is pathogenetic in this case?

- A Corticosteroids
- B Diuretics
- C NSAID
- D Calcium antagonists
- E Antibiotics

After myocardial infarction, a 50-year-old patient had an attack of asthma. Objectively: bubbling breathing with frequency of 32/min, cough with a lot of pink frothy sputum, acrocyanosis, swelling of the neck veins. Ps- 108/min, AP- 150/100 mm Hg. Heart sounds are muffled. Mixed moist rales can be auscultated above the entire lung surface. What drug would be most effective in this situation?

- A Nitroglycerin intravenously
- B Pentamin intravenously
- C Strophanthin intravenously
- D Dopamine intravenously
- E Aminophylline intravenously

During dynamic investigation of a patient the increase of central venous pressure is combined with the decrease of arterial pressure. What process is proved by such combination?

- A Increase of bleeding speed
- B Developing of cardiac insufficiency
- C Shunting
- D Depositing of blood in venous channel
- E Presence of hypervolemia

A male patient complains of heartburn which gets stronger while bending the body, substernal pain during swallowing. There is a hiatus hernia on X-ray. What disorder should be expected at gastroscopy?

- A Gastroesophageal reflux
- B Chronic gastritis
- C Gastric peptic ulcer
- D Acute erosive gastritis
- E Duodenal peptic ulcer

A 43 y.o. male complains of stomach pain, which relieves with defecation, and is accompanied by abdominal winds, rumbling, the feeling of incomplete evacuation or urgent need for bowel movement, constipation or diarrhea in alternation. These symptoms have lasted for over 3 months. No changes in laboratory tests. What is the most likely diagnosis?

- A Irritable bowel syndrome
- B Spastic colitis
- C Colitis with hypertonic type dyskinesia
- D Chronic enterocolitis, exacerbation phase
- E Atonic colitis

Against the background of angina a patient has developed pain in tubular bones. Examination revealed generalized enlargement of lymph nodes, hepatolienal syndrome, sternalgia. In blood: RBCs -  $3,6 \times 10^{12}/l$ , Hb- 87 g/l, thrombocytes –  $45 \times 10^9/l$ , WBCs –  $13 \times 10^9/l$ , blasts - 87%, stab neutrophils - 1%, segmented neutrophils - 7%, lymphocytes - 5%, ESR - 55 mm/h. What is the most likely diagnosis?

- A Acute leukemia
- B Erythremia
- C Chronic lymphocytic leukemia
- D Chronic myeloid leukemia
- E Multiple myeloma

A 49-year-old female patient with schizophrenia is all the time listening to something, insists that "there is a phone in her head" as she hears the voice of her brother who tells her to go home. The patient is anxious, suspicious, looks around all the time. Specify the psychopathological syndrome:

- A Hallucinatory
- B Generalized anxiety disorder
- C Paranoiac
- D Paraphrenic
- E Depressive

A 43-year-old male patient undergoing treatment for peptic ulcer complains of weakness, dizziness, coffee-ground vomiting, melena. After administration of haemostatics the patient's condition has not improved, fresh blood has shown up in the vomit, skin bruises of different sizes have appeared. In blood: thrombocytes –  $50 \times 10^9/l$ , Lee-White clotting time - 35 minutes, APTT - 80 seconds. In this case it is most rational to administer the following preparation:

- A Fresh frozen plasma
- B Heparin
- C Fibrinogen
- D Rheopolyglucinum
- E Vikasol

A 38-year-old patient complains of inertness, subfebrile temperature, enlargement of lymph

nodes, nasal haemorrhages, bone pain. Objectively: the patient's skin and mucous membranes are pale, palpation revealed enlarged painless lymph nodes; sternalgia; liver was enlarged by 2 cm, spleen - by 5 cm, painless. In blood: erythrocytes -  $2,7 \times 10^{12}/l$ , Hb- 84 g/l, leukocytes -  $58 \times 10^9/l$ ,

eosinophils - 1%, stab neutrophils - 2%, segmented neutrophils - 12%, lymphocytes - 83%, lymphoblasts - 2%, smudge cells; ESR- 57 mm/h. What is the most likely diagnosis?

- A Chronic lymphatic leukemia
- B Chronic myeloleukemia
- C Acute lymphatic leukemia
- D Acute myeloleukemia
- E Lymphogranulomatosis

A 30-year-old male patient complains of inertness, low-grade fever, bleeding gums, frequent quinsies, aching bones. Objectively: the patient has pale skin and mucous membranes, sternalgia, +2 cm liver, +5 cm painless spleen. Blood test results: RBC -  $2,7 \times 10^{12}/l$ , Hb - 80 g/l, WBC -  $3 \times 10^9/l$ , eosinophils - 4%, basophils - 5%, blasts - 4%, stab neutrophils - 2%, segmented neutrophils - 17%, lymphocytes - 29%, myelocytes - 25%, promyelocytes - 12%, monocytes - 2%, platelets -  $80 \times 10^9/l$ , ESR - 57 mm/h. What test should be performed to verify the diagnosis?

- A Sternal puncture
- B Trephine biopsy
- C Lymph node biopsy
- D Lumbar puncture
- E Chest X-ray

A 24-year-old patient complains about putting on weight, limosis. Objectively: the patient's constitution is of hypersthenic type, body weight index is  $33,2 \text{ kg}/\text{m}^2$ , waist circumference is 100 cm. Correlation of waist circumference to the thigh circumference is 0,95. What is the most likely diagnosis?

- A Alimentary constitutional obesity of the I stage, abdominal type
- B Hypothalamic Itsenko-Cushing obesity of the II stage, gynoid type
- C Alimentary constitutional obesity of the III stage, gynoid type
- D Alimentary constitutional obesity of the II stage, abdominal type
- E Hypothalamic Itsenko-Cushing obesity of the I stage, abdominal type

A 47-year-old male patient has been lately complaining of compressing chest pain that occurs when he walks a distance of 700-800 m. Once a week, he drinks 2 liters of beer. Rise in arterial pressure has been observed for the last 7 years. Objectively: Ps - 74/min, AP - 120/80 mm Hg. The bicycle ergometry performed at workload of 75 watts shows 2 mm ST-segment depression in V4-V6 leads. What is the most likely diagnosis ?

- A Exertional stenocardia, II functional class
- B Exertional stenocardia, III functional class
- C Exertional stenocardia, IV functional class
- D Vegetative-vascular dystonia of hypertensive type
- E Alcoholic cardiomyopathy

A 58-year-old patient complains about sensation of numbness, sudden paleness of II-IV fingers, muscle rigidity, intermittent pulse. The patient presents also with polyarthralgia, dysphagia, constipations. The patient's face is masklike, solid edema of hands is present. The heart is enlarged; auscultation revealed dry rales in lungs. In blood: ESR- 20 mm/h, crude protein - 85/l,

$\gamma$ -globulines - 25%. What is the most likely diagnosis?

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

A 45-year-old man has been exhibiting high activity for the last 2 weeks, he became talkative, euphoric, had little sleep, claimed being able "to save the humanity" and solve the problem of cancer and AIDS, gave money the strangers. What is the most likely diagnosis?

- A Maniacal onset
- B Panic disorder
- C Agitated depression
- D Schizo-affective disorder
- E Catatonic excitation

A patient had four generalized convulsive seizures within a day. Between the seizures the patient did not come to waking consciousness (was in a coma or stupor). Specify his state:

- A Status epilepticus
- B Frequent generalized seizures
- C Frequent jacksonian seizures
- D Hysterical attacks
- E Frequent complex partial seizures

A 35-year-old patient complains of heartburn, sour eructation, burning, compressing retrosternal pain and pain along the esophagus rising during forward bending of body. The patient hasn't been examined, takes Almagel on his own initiative, claims to feel better after its taking. Make a provisional diagnosis:

- A Gastroesophageal reflux disease
- B Functional dyspepsia
- C Cardiospasm
- D Gastric ulcer
- E Duodenal ulcer

As a result of lifting a load a 62-year-old female felt acute pain in the lumbar region, in a buttock, posterolateral surface of her right thigh, external surface of the right shin and dorsal surface of foot. Objectively: weakness of the anterior tibial muscle, long extensor muscle of the right toes, short extensor muscle of the right toes. Low Achilles reflex on the right. Positive Lasegue's sign. What examination method would be the most effective for specification of the diagnosis of discogenic compression of L5 root?

- A Magnetic resonance scan
- B Spinal column X-ray
- C Electromyography
- D Angiography
- E Lumbar puncture

A 45-year-old female patient complaining of general weakness, nausea and vomiting has been delivered to a hospital by the ambulance. Recently there has been a lack of appetite, weight loss. Objectively: hyperpigmentation of skin, blood pressure at the rate of 70/45 mm Hg, bradycardia. Additional studies revealed the reduced concentration of aldosterone and cortisol

in blood, decreased excretion of 17-ketosteroids and 17-oxyketosteroids in the urine, hyponatremia, chloropenia, hypokalemia. What therapeutic measures are required?

- A To administer glucocorticoids, mineralocorticoids, and a diet with a high content of cooking salt
- B To prescribe a diet with a high content of cooking salt
- C To administer prednisolone
- D To administer aldosterone
- E To administer insulin

A 23-year-old female patient has a mental disease since the age of 18, the course of disease has no remission periods. At a hospital the patient mostly presents with non-purposeful foolish excitation: she makes stereotypic grimaces, exposed, masturbating in front of a loud laugh, repeating the stereotypical abusive shouts. The patient should be assigned:

- A Neuroleptics
- B Antidepressants
- C Tranquilizers
- D Nootropics
- E Mood stabilizers

A 40-year-old patient is registered in a narcological dispensary. Somatically: skin is dramatically hyperemic, sclera are injected, hyperhidrosis is present. AP- 140/100 mm Hg, heart rate - 100/min. Mental state: autopsychic orientation is intact, allopsychic orientation is distorted. The patient presents with motor anxiety. There is a look of fear on his face. He refuses to talk about his problems and asks to release him immediately, because he "may be killed." This state developed a day after a regular drinking bout. What is your provisional diagnosis?

- A Delirium tremens
- B Organic delirium
- C Paranoia
- D Alcoholic hallucinosis
- E Alcoholic paranoid

During the preventive examination a 17-year-old young man reports no health problems. Objectively: the patient is undernourished, asthenic; blood pressure is 110/70 mm Hg, Ps - 80/min. Heart borders are within normal range. Auscultation reveals three apical heart sounds, murmurs are absent. ECG shows no pathological changes, PCG registers the S3 occurring 0,15 seconds after the S2. How can you interpret these changes?

- A Physiologic S3
- B Fout-ta-ta-rou (three-component rhythm)
- C Protodiastolic gallop rhythm
- D Presystolic gallop rhythm
- E Physiologic S4

A patient is being prepared for the operation on account of varix dilatation of lower extremities veins. Examination of the patient's soles revealed flour-like desquamation along the skin folds. All the toenails are greyish-yellow, thickened and partially decayed. What dermatosis should be suspected?

- A Rubromycosis
- B Pityriasis versicolor
- C Candidosis
- D Microsporia
- E Microbial eczema



A 30 y.o. man presents with a history of recurrent pneumonias and a chronic cough production of foul smelling, purulent sputum, occasionally blood tinged, which is worse in the morning and on lying down. On physical examination, the patient appears chronically ill with clubbing of fingers, inspiratory rales at the base of lungs posteriorly. Most likely diagnosis:

- A. Bronchoectasis
- B. Chronic bronchitis
- C. Disseminated pulmonary tuberculosis
- D. Pulmonary neoplasm
- E. Chronic obstructive emphysema

A 56 y.o. woman has an acute onset of fever up to 39°C with chills, cough, and pain on respiration in the right side of her chest. On physical examination: HR-90/min, BP- 95/60 mm Hg, RR- 26/min. There is dullness over the right lung on percussion. On X-ray: infiltrate in the right middle lobe of the lung. What is the diagnosis?

- A. Community-acquired lobar pneumonia with moderate severity
- B. Community-acquired bronchopneumonia
- C. Acute pleurisy
- D. Acute lung abscess
- E. Hospital-acquired lobar pneumonia

A 38 y.o. woman is seriously ill. She complains of frequent paroxysms of expiratory dyspnea. The last paroxysm lasted over 12 hours and failed to respond to theophylline. The skin is palish gray, moist, RR of 26/min. On auscultation, breath sounds are absent over some areas. Your preliminary diagnosis?

- A. Bronchial asthma, status asthmaticus
- B. Chronic obstructive bronchitis
- C. Atopic bronchial asthma, respiratory failure of the III degree
- D. Bronchiectasis, respiratory failure of the II-III degree
- E. Ischemic heart disease, pulmonary edema

The patient has sustained blunt trauma to the chest. Which of the following would most likely be the cause of acute cardiopulmonary collapse?

- A. Pneumothorax
- B. Hemothorax
- C. Pulmonary contusion
- D. Rib fractures
- E. Acute adult respiratory distress syndrome (ARDS)

A patient has been suffering from morning cough accompanied by discharge of small amount of sputum, dyspnea for 8 years. He has been smoking for 10 years. Objectively: cyanosis, prolonged expiration, dry rales. What is the most probable diagnosis?

- A. Chronic obstructive bronchitis
- B. Chronic non-obstructive bronchitis
- C. Idiopathic fibrosing alveolitis
- D. Multiple bronchiectasis
- E. Bronchial asthma

Fluorography of a 45 y.o. man revealed some little intensive foci with indistinct outlines on the top of his right lung for the first time. The patient doesn't feel worse. He has been smoking for many years. Objectively: pulmonary sound above lungs on percussion, respiration is vesicular, no rales. Blood count is unchanged. What is the most probable diagnosis?

- A. Focal pulmonary tuberculosis
- B. Peripheral cancer of lung
- C. Eosinophilic pneumonia
- D. Bronchopneumonia
- E. Disseminated pulmonary tuberculosis

A worker at a porcelain factory who has been in service for 10 years complains of cough, dyspnea, ache in his chest. What occupational disease are these complaints most typical for?

- A. Silicosis
- B. Multiple bronchiectasis
- C. Chronic dust bronchitis
- D. Occupational bronchial asthma
- E. Chronic cor pulmonale

X-ray pattern of thorax organs revealed a large intensive in homogeneous opacity with indistinct outlines on the right side at the level of the 4-th rib. In the centre of this opacity there is a horizontal level and clearing of lung tissue above it. What disease does this X-ray pattern correspond with?

- A. Abscess of the right lung
- B. Peripheral cancer
- C. Tuberculoma of the right lung
- D. Right-sided pneumothorax

A 67 y.o. patient complains of dyspnea, breast pain, common weakness. He has been ill for 5 months. Objectively:  $t_0$ - 37,3<sup>o</sup>, Ps- 96/min. Vocal tremor over the right lung cannot be determined, percussion sound is dull, breathing cannot be auscultated. In sputum: blood diffusively mixed with mucus. What is the most probable diagnosis?

- A. Lung cancer
- B. Macrofocal pneumonia
- C. Bronchoectatic disease
- D. Focal pulmonary tuberculosis
- E. Exudative pleuritis

Five days after a total hip replacement a 72 year old woman becomes acutely short of breath, siaphoretic and hypotensive. Both lung fields are clear to auscultation and percussion, but examination of the neck reveals mild jugular venous distension with prominent A waves. Heart sounds are normal. ECG shows sinus tachycardia with a new right bundle branch block and minor nonspecific ST – T wave changes. The most likely diagnosis is:

- A. Pulmonary thromboembolism
- B. Acute myocardial infarction
- C. Aortic dissection
- D. Pericarditis
- E. Aspiration

A 56 year old woman has an acute onset of fever up to 39<sup>o</sup>C with chills, cough, and pain on respiration in the right side of her chest. On physical examination: HR - 90/min, BP- 95/60 mm Hg,

RR-26/min. There is dullness over the right lung on percussion. On X-ray: infiltrate in the right middle lobe of the lung. What is the diagnosis?

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

A 26 year old man was admitted to the hospital because of stabbing back pain on inspiration and dyspnea. Examination results: BT of 37°C, Ps of 24/min, HR of 92/min, vesicular breath sounds. There is a dry, grating, low-pitched sound heard on both expiration and inspiration in the left inferior lateral part of the chest. What is the most likely diagnosis?

- A. Acute fibrinous pleuritis
- B. Myocarditis
- C. Pneumonia
- D. Acute bronchitis
- E. Pneumothorax

A patient complains about strong dyspnea that is getting worse during physical activity. Presentations appeared suddenly 2 hours ago at work: acute chest pain on the left, cough. The pain was abating, but dyspnea, dizziness, pallor, cold sweat and cyanosis were progressing. Vesicular respiration is absent, X-ray picture shows a shadow on the left. What pathology might be suspected?

- A. Spontaneous left-sided pneumothorax
- B. Pulmonary infarction
- C. Pleuritis
- D. Left-sided pneumonia
- E. Pulmonary abscess

Survey radiograph of chest of a 62 year old smoker who often suffers from "pneumonias" showed a triangle shadow in the right lung, its vertex is pointing towards the lung root. It also showed deviation of heart and mediastinum shadows towards the lesion. What is the most probable diagnosis?

- A. Central cancer of lung
- B. Lung abscess
- C. Lung cyst
- D. Peripheral cancer of lung
- E. Atelectasis

A 52 year old patient complains about pain in the right part of her chest, dyspnea, cough with a lot of foul-smelling albuminoid sputum in form of "meat slops". Objectively: the patient's condition is grave, cyanosis is present, breathing rate is 31/min, percussion sound above the right lung is shortened, auscultation revealed different rales. What is the most probable diagnosis?

- A. Lung gangrene
- B. Lung abscess
- C. Pleura empyema
- D. Multiple bronchiectasis
- E. Chronic pneumonia

Five days after a total hip joint replacement a 72 year old woman becomes acutely short of breath, diaphoretic and hypotensive. Both lung fields are clear to auscultation and percussion, but

examination of the neck reveals mild jugular venous distension with prominent A waves. Heart sounds are normal. ECG shows sinus tachycardia with a new right bundle branch block and minor nonspecific ST – T wave changes. The most likely diagnosis is:

- A. Pulmonary thromboembolism
- B. Acute myocardial infarction
- C. Aortic dissection
- D. Pericarditis
- E. Aspiration

What is the maximum duration of medical certificate in case of tuberculosis?

- A. 2 months
- B. Week
- C. 2 weeks
- D. Month
- E. 10 months

A patient complains about severe dyspnea that is getting worse during physical activity. Presentations appeared suddenly 2 hours ago at work: acute chest pain on the left, cough. The pain was abating, but dyspnea, dizziness, pallor, cold sweat and cyanosis were progressing. Vesicular respiration is absent, X-ray picture shows a shadow on the left. What pathology might be suspected?

- A. Spontaneous left-sided pneumothorax
- B. Pulmonary infarction
- C. Pleuritis
- D. Left-sided pneumonia
- E. Pulmonary abscess

Examination of a 22 year old man suffering from polyarthralgia and high fever revealed right-sided exudative pleuritis. X-ray picture showed a homogenous shadow below the IV rib on the right. In the II segment there were single dense focal shadows. Mantoux test with 2 TU resulted in formation of a papule 16 mm large. Pleural liquid has increased protein concentration, Rivalta's reaction is positive, there was also increased number of leukocytes with prevailing lymphocytes.

What is the most probable etiology of pleuritis?

- A. Tuberculous
- B. Cancerous
- C. Staphylococcal
- D. Viral
- E. Autoimmune

A 52 year old male patient complains about attacks of asphyxia, pain in his left side during respiration. These manifestations turned up all of a sudden. It is known from his anamnesis that he had been treated for thrombophlebitis of the right leg for the last month. In the admission ward the patient suddenly lost consciousness, there was a sudden attack of asphyxia and pain in his left side. Objectively: heart rate - 102/min, respiratory rate - 28/min, AP- 90/70 mm Hg. Auscultation revealed diastolic shock above the pulmonary artery, gallop rhythm, small bubbling rales above the lungs under the scapula on the right, pleural friction rub. What examination method will be the most informative for a diagnosis?

- A. Angiography of pulmonary vessels
- B. Echocardiography
- C. Study of external respiration function
- D. ECG

## E. Coagulogram

A 36 year old man was delivered to the surgical department an hour after a road accident. His condition is getting worse: respiratory insufficiency is progressing, there are cardiac abnormalities. Clinical and roentgenological investigations revealed mediastinal displacement. What process has caused this complication?

- A. Valvular pneumothorax
- B. Open pneumothorax
- C. Closed pneumothorax
- D. Subcutaneous emphysema
- E. Mediastinitis

A 25-year-old man was admitted to a hospital with a 2 month history of cough and fever. A chest x-ray showed extensive left upper lobe disease with a 2 cm cavity. All three points were strongly positive on direct smear and grew M. Tuberculosis, fully sensitive to all first-line drugs. Patient must be treated with:

- A. Isoniazid + rifampicin + pyrazinamide
- B. Streptomycin + isoniazid
- C. Isoniazid + ethambutol
- D. Kanamycin + ethambutol + pyrazinamide
- E. P-aminosalicylic acid + streptomycin

On the 4th day after suturing the perforative stomach ulcer a patient with pulmonary emphysema developed spontaneous pneumothorax. What is the best place for pleural drainage?

- A. The second intercostal space along the medioclavicular line
- B. The eighth intercostal space along the posterior axillary furrow
- C. The seventh intercostal space along the anterior axillary furrow
- D. The sixth intercostal space along the anterior axillary furrow
- E. The fifth intercostal space along the medioclavicular line

A 52-year-old male patient complains about attacks of asphyxia, pain in his right side during respiration. These manifestations turned up all of a sudden. It is known from his anamnesis that he had been treated for thrombophlebitis of the right leg for the last month. In the admission ward the patient suddenly lost consciousness, there was a sudden attack of asphyxia and pain in his side. Objectively: heart rate - 102/min, respiratory rate- 28/min, AP- 90/70 mm Hg. Auscultation revealed diastolic shock above the pulmonary artery, gallop rhythm, small bubbling rales above the lungs under the scapula on the right, pleural friction rub. What examination method will be the most informative for a diagnosis?

- A. Angiography of pulmonary vessels
- B. Echocardiography
- C. Study of external respiration function
- D. ECG
- E. Coagulogram

On the 4th day after recovering from a cold a patient was hospitalized with complaints of solitary spittings of mucoid sputum. On the 2nd day there was a single discharge of about 250 ml of purulent blood-streaked sputum. Objectively: the patient's condition is moderately severe. Respiratory rate - 28-30/min, Ps- 96 bpm, AP- 110/70mm Hg. Respiration above the left lung is vesicular, weak above the right lung. There are moist rales of different types above the lower lobe and amphoric breath near the angle of scapula. What is the most likely diagnosis?

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

A 36-year-old man was delivered to the surgical department an hour after a road accident. His condition is getting worse: respiratory insufficiency is progressing, there are cardiac abnormalities. Clinical and roentgenological investigations revealed mediastinal displacement. What process has caused this complication?

- A. Valvular pneumothorax
- B. Open pneumothorax
- C. Closed pneumothorax
- D. Subcutaneous emphysema
- E. Mediastinitis

A 26-year-old male patient complains of piercing pain during breathing, cough, dyspnea. Objectively:  $t = 37,3^{\circ}\text{C}$ , respiration rate - 19/min, heart rate - 92/min; AP - 120/80 mm Hg. Vesicular respiration. In the inferolateral parts of chest auscultation in both inspiration and expiration phase revealed noise that was getting stronger at phonendoscope pressing and can be still heard after cough. ECG showed no pathological changes. What is the most likely diagnosis?

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

A 22-year-old patient is a clerk. His working day runs in a conditioned room. In summer he was taken by an acute disease with the following symptoms: fever, dyspnea, dry cough, pleural pain, myalgia, arthralgia. Objectively: moist rales on the right, pleural friction rub. X-ray picture showed infiltration of the inferior lobe. In blood: WBC -  $11 \cdot 10^9/\text{l}$ , stab neutrophils - 6%, segmented neutrophils - 70%, lymphocytes - 8%, ESR - 42 mm/h. What is the etiological factor pneumonia?

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

A 47-year-old patient complains about cough with purulent sputum, pain in the lower part of the left chest, periodical body temperature rise. She has been suffering from these presentations for about 10 years. Objectively: "drumstick" distal phalanges. What examination would be the most informative for making a diagnosis?

- A. Bronchography
- B. Bronchoscopy
- C. Survey radiograph of lungs
- D. Pleural puncture
- E. Bacteriological analysis of sputum

A hospital has admitted a 52-year-old patient with disseminated pulmonary tuberculosis, complaints of acute pain in the right half of chest, that developed after going upstairs to the 3rd floor; cough, dyspnea at rest, marked cyanosis. What kind of complication should be suspected first of all?

- A. Spontaneous pneumothorax
- B. Cardiac failure
- C. Pulmonary failure
- D. Pleuritis
- E. Acute myocardial infarction

Topographic percussion of lungs in a patient who got a serious job-related barotrauma revealed that the lower lungs borders were located one rib below normal, there was a significant increase in both lungs height and Kronig's isthmus. What disease should be suspected in the first place?

- A. Pulmonary emphysema
- B. Exudative pleuritis
- C. Chronic bronchitis
- D. Bronchial asthma
- E. Pneumothorax

A 45-year-old patient, a sailor, was hospitalized on the 2nd day of the disease. A week ago he returned from India. Complains of body temperature of 41°C, severe headache, dyspnea, cough with frothy rusty sputum. Objectively: the patient is pale, mucous membranes are cyanotic, breathing rate - 24/min, tachycardia is present. In lungs: diminished breath sounds, moist rales over both lungs, crepitation. What is the most likely diagnosis?

- A. Pneumonic plague
- B. Miliary tuberculosis
- C. Influenza
- D. Ornithosis
- E. Sepsis

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- A. Bronchography
- B. Bronchoscopy
- C. Survey radiograph of lungs
- D. Pleural puncture
- E. Bacteriological analysis of sputum

A 49-year-old patient complains of dyspnea, cough. There are no sputum discharges. He has repeatedly used salbutamol and intal but with no effect. Objectively: he is only able to sit while leaning on the table. Cyanosis of face, acrocyanosis are present. Breathing is shallow, laboured, in some parts it cannot be auscultated; there are diffuse rales, expiration is significantly prolonged. Heart sounds are muffled, tachycardia is present. Ps - 112/min., AP - 110/70 mmHg. Liver is located near the costal arch. There are no peripheral edemata. What is your provisional diagnosis?

- A. Status asthmaticus
- B. Chronic obstructive bronchitis
- C. Bronchial asthma, moderate gravity
- D. Foreign object aspiration

E. Cardiac asthma

A patient is 50 years old, works as a builder with 20 years of service record. He was admitted to the hospital for chest pain, dry cough, minor dyspnea. Objectively: sallow skin, acrocyanosis, asbestos warts on the hands. In lungs - rough respiration, diffuse dry rales. The x-ray picture shows intensification of pulmonary pattern, signs of pulmonary emphysema. What is the most likely diagnosis?

- A. Asbestosis
- B. Lung cancer
- C. Pneumonia
- D. Chronic obstructive bronchitis
- E. Tuberculosis

4 days ago a 32-year-old patient caught a cold: he presented with sore throat, fatigue. The next morning he felt worse, developed dry cough, body temperature rose up to 38,2°C, there appeared muco-purulent expectoration. Percussion revealed vesicular resonance over lungs, vesicular breathing weakened below the angle of the right scapula, fine sonorous and sibilant wheezes. What is the most likely diagnosis?

- A. Focal right-sided pneumonia
- B. Bronchial asthma
- C. Acute bronchitis
- D. Pulmonary carcinoma
- E. Pulmonary gangrene

A 54-year-old drowned man was rescued from the water and delivered to the shore. Objectively: the man is unconscious, pale, breathing cannot be auscultated, pulse is thready. Resuscitation measures allowed to save the patient. What complications may develop in the near future?

- A. Pulmonary edema
- B. Respiratory arrest
- C. Encephalopathy
- D. Cardiac arrest
- E. Bronchospasm

A 55-year-old male had been treated at the surgical department for acute lower- extremity thrombophlebitis. On the 7th day of treatment he suddenly developed pain in the left part of chest, dyspnea and cough. Body temperature was 36,1°C, respiratory rate - 36/min. The patient was also found to have diminished breath sounds without wheezing. Ps- 140/min, thready. AP- 70/50 mm Hg. The ECG shows Q-T syndrome. What is the most likely diagnosis?

- A. Pulmonary embolism
- B. Myocardial infarction
- C. Cardiac asthma
- D. Bronchial asthma
- E. Pneumothorax

A survey radiograph of a miner (24 years of service record, the dust concentration in the workplace is at the rate of 260-280 mg/m<sup>3</sup> with 15% of free silica) shows lung changes that are typical for pneumoconiosis. What type of pneumoconiosis is it?

- A. Anthracosilicosis
- B. Carboconiosis
- C. Silicatosis



- D. Anthracosilicatosi
- E. Silicosis

On the 4th day after recovering from a cold a patient was hospitalized with complaints of solitary spittings of mucoid sputum. On the 2nd day there was a single discharge of about 250 ml of purulent blood-streaked sputum. Objectively: the patient's condition is moderately severe. Respiratory rate - 28-30/min, Ps- 96 bpm, AP- 110/70mm Hg. Respiration above the left lung is vesicular, weak above the right lung. There are moist rales of different types above the lower lobe and amphoric breath near the angle of scapula. What is the most likely diagnosis?

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

A patient has chronic heart failure of the II stage. He takes furosemide regularly three times a week. He had developed bronchopneumonia and had been administered combined pharmacotherapy. On the fifth day of therapy the patient complained of hearing impairment. What drug coadministered with furosemide might have caused the hearing loss?

- A. Gentamicin
- B. Linex
- C. Nystatin
- D. Tavegil
- E. Mucaltin

A 56-year-old patient complains of having persistent chest pain on the right for the last 2 months. The pain is not associated with respiration. He also complains of cough with blood-streaked sputum, weakness, decreased performance, fatigue. Chest radiograph shows a globular shade of 4x6 cm connected to the root of the lung in the lower part of the right lung. What is the most likely diagnosis?

- A. Peripheral lung cancer
- B. Metastasis
- C. Lung abscess
- D. Pneumonia
- E. Tuberculoma

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- A. Valvular pneumothorax
- B. Open pneumothorax
- C. Closed pneumothorax
- D. Subcutaneous emphysema
- E. Mediastinitis

A 26-year-old male patient complains of piercing pain during breathing, cough, dyspnea. Objectively: to- 37,3oC, respiration rate - 19/min, heart rate = Ps-92/min; AP- 120/80 mm Hg. Vesicular respiration. In the inferolateral parts of chest auscultation in both inspiration and expiration

phase revealed noise that was getting stronger at phonendoscope pressing and can be still heard after cough. ECG showed no pathological changes. What is the most likely diagnosis?

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

A 25-year-old patient complains of general weakness, dry cough, sweating, subfebrile temperature. Objectively: lung auscultation reveals vesicular respiration with no wheezing. Fluorogram shows focal shadows of high intensity in the 1-2 segments of the right lung. Mantoux test gave a reaction of 16 mm of induration. What clinical form of tuberculosis is most likely?

- A. Focal
- B. Infiltrative
- C. Disseminated
- D. Tuberculoma
- E. Miliary

A 22-year-old patient is a clerk. His working day runs in a conditioned room. In summer he was taken by an acute disease with the following symptoms: fever, dyspnea, dry cough, pleural pain, myalgia, arthralgia. Objectively: moist rales on the right, pleural friction rub. X-ray picture showed infiltration of the inferior lobe. In blood: WBC -  $11 \cdot 10^9/l$ , stab neutrophils - 6%, segmented neutrophils - 70%, lymphocytes - 8%, ESR - 42 mm/h. What is the etiological factor of pneumonia?

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

A 49-year-old patient complains of dyspnea, cough. There are no sputum discharges. He has repeatedly used salbutamol and intal but with no effect. Objectively: he is only able to sit while leaning on the table. Cyanosis of face, acrocyanosis are present. Breathing is shallow, labored, in some parts it cannot be auscultated; there are diffuse rales, expiration is significantly prolonged. Heart sounds are muffled, tachycardia is present. Ps - 112/min., AP- 110/70 mm Hg. Liver is located below the costal arch. There are no peripheral edemata. What is your provisional diagnosis?

- A. Status asthmaticus
- B. Chronic obstructive bronchitis
- C. Bronchial asthma, moderate severity
- D. Foreign object aspiration
- E. Cardiac asthma

A 35-year-old victim of a road accident has got an injury of the right side of his chest. Objectively: respiration rate - 28-30/min, respiration is shallow, restricted respiratory excursion and acrocyanosis are present. Ps 110 bpm, AP- 90/60 mm Hg. Respiratory sounds over the right lung cannot be auscultated. Chest radiograph shows fractures of the VI-VII ribs on the right, the right pleural cavity contains both air and fluid, with the fluid at about the level of the V rib, the shadow of the mediastinum is displaced to the left. What first aid should be provided to the victim?

- A. Puncture of the pleural cavity
- B. Antibiotic administration
- C. Vagosympathetic blockade

- D. Artificial ventilation of lungs
- E. Urgent thoracotomy

A patient undergoing treatment for the left-sided destructive pneumonia presents with deterioration of his general condition, progressing dyspnea, cyanosis. Objectively: the left side of chest is not involved in respiration, breathing sounds cannot be auscultated. Radiograph shows a shadow reaching the 5 rib with a horizontal fluid level and a radiolucency above it, the mediastinum is displaced to the right. What is the medical tactics?

- A. Thoracostomy
- B. Open thoracotomy
- C. Endotracheal intubation
- D. Infusion and antibacterial therapy
- E. Emergency bronchoscopy

A 64-year-old patient complains of severe pain in the right side of chest, dyspnea, dry cough Which appeared suddenly on exertion. Objectively: the right side of the chest lags behind in the act of breathing. Percussion reveals tympanic sound. Auscultation reveals pronouncedly diminished breath sounds on the right. Ps-100/min, weak, arrhythmic. AP- 100/50 mm Hg. Cardiac sounds are decreased. Whatdiseasecan be suspected inthis patient?

- A. Right-sided pneumothorax
- B. Right-sided hydrothorax
- C. Right-sided dry pleurisy
- D. Right-sided pleuropneumonia
- E. PATE

A 32-year-old patient has developed an acute condition after hypothermia: temperature - 40oC, cough with 200 ml of sputum per day. The sputum is purulent, foul-smelling. To the right of the lower lobe the mixed moist rales can be auscultated. Blood tst results: WBCs -  $18,0 \cdot 10^9/l$ , ESR - 45 mm/h. Radiographi-cally: in the lower lobe of the right lung there is a thick-walled cavity up to 6 cm in diameter with a high horizontal level. What is the most likely diagnosis?

- A. Lung abscess
- B. Fibro-cavernous pulmonary tuberculosis
- C. Lung cyst
- D. Decomposing lung carcinoma
- E. Infiltrative pulmonary tuberculosis

X-ray picture of chest shows a density and an abrupt decrease in the upper lobe of the right lung. The middle and lower lobe of the right lung exhibit significant pneumatization. The right pulmonary hilum comes up to the dense lobe. In the upper and middle parts of the left pulmonary field there are multiple focal shadows. In the basal region of the left pulmonary field there are clear outlines of two annular shadows with quite thick and irregular walls. What disease is this X-ray pattern typical for?

- A. Fibro-cavernous pulmonary tuberculosis
- B. Atelectasis of the right upper lobe
- C. Abscessing pneumonia
- D. Peripheral cancer
- E. Pancoast tumour

A 45-year-old patient, a sailor, was hospitalized on the 2nd day of the disease. A week ago he returned from India. Complains of body temperature of 41oC, severe headache, dyspnea, cough

with frothy rusty sputum. Objectively: the patient is pale, mucous membranes are cyanotic, breathing rate is 24/min, tachycardia is present. In lungs: diminished breath sounds, moist rales over both lungs, crepitation. What is the most likely diagnosis?

- A. Pneumonic plaque
- B. Miliary tuberculosis
- C. Influenza
- D. Ornithosis
- E. Sepsis

A 49-year-old patient complains of dyspnea, cough. There are no sputum discharges. He has repeatedly used salbutamol and intal but with no effect. Objectively: he is only able to sit while leaning on the table. Cyanosis of face, acrocyanosis are present. Breathing is shallow, laboured, in some parts it cannot be auscultated; there are diffuse rales, expiration is significantly prolonged. Heart sounds are muffled, tachycardia is present. Ps - 112/min, AP- 110/70 mm Hg. Liver is located near the costal arch. There are no peripheral edemata. provisional diagnosis?

- A. Status asthmaticus
- B. Chronic obstructive bronchitis
- C. Bronchial asthma, moderate gravity
- D. Foreign object aspiration
- E. Cardiac asthma

Examination of a 38-year-old patient who had been hit with a blunt object on the left side of chest revealed a fracture of the X rib with fragments displacement, parietal pneumothorax. The patient complains of pain in the left subcostal area. Objectively: the patient is pale, AP- 80/40 mm Hg, Ps- 138/min, of poor volume. USI reveals fluid in the left abdomen. Splenic rupture is present. What treatment tactics should be chosen?

- A. Drainage of the left pleural cavity followed by laparotomy
- B. Immediate upper median laparotomy followed by drainage of the left pleural cavity
- C. Immediate laparotomy and alcohol-novocaine block of the X rib
- D. Anti-shock actions followed by laparotomy after the arterial pressure rise
- E. Left-sided thoracotomy immediately followed by laparotomy

A 45-year-old patient with acute abscess of the left lung has suddenly developed acute chest pain and dyspnea while coughing, tachycardia has increased. The control Ro-gram shows collapsed left lung, the air in the left pleural cavity and a horizontal fluid level. What is the mechanism of this complication?

- A. Abscess burst into the pleural cavity
- B. Bullae rupture of the left lung
- C. Inflammation spread to the visceral pleura
- D. Atelectasis of the left lung
- E. Acute cardiovascular insufficiency

A 38-year-old patient has suddenly developed pain in the left side of his chest, suffocation. Objectively: moderately grave condition, Ps- 100/min, AP- 90/60 mm Hg, breath sounds on the left cannot be auscultated. Chest radiography shows the collapse of the left lung up to 1/2. What kind of treatment should be administered?

- A. Passive thoracostomy
- B. Rest, resolution therapy
- C. Pleural puncture
- D. Operative therapy

#### E. Active thoracostomy

A 58-year-old patient complains of a headache in the occipital region, nausea, choking, opptentes. The presentations appeared after a physical exertion. Objectively: the patient is excited. Face is hyperemic. Skin is pale. Heart sounds are regular, the 2nd aortic sound is accentuated. AP- 240/120 mm Hg, HR-92/min. Auscultation reveals some fine moist rales in the lower parts of the lungs. Liver is not enlarged. ECG shows signs of hypertrophy and left ventricular overload. What is the most likely diagnosis?

- A. Complicated hypertensive crisis, pulmonary edema
- B. Acute myocardial infarction, pulmonary edema
- C. Bronchial asthma exacerbation
- D. Uncomplicated hypertensive crisis
- E. Community-acquired pneumonia

A 63-year-old male patient complains of cough with expectoration of mucous bloodstreaked sputum, asthma, low-grade fever, general we has been a smoker since childhood. Objectively: to- 37,4oC, respiratory rate is 26/min, Ps- 82/min, rhythmic. AP- 130/85 mm Hg. There is limited breathing movement in the right side of chest cavity, as well as percussive dullness and diminished breath sounds. Radiograph shows a homogeneous opacity of the pulmonary field on the right with the mediastinum displacement to the affected side. What is the most likely diagnosis?

- A. Central lung cancer
- B. Pleural effusion
- C. Pleuropneumonia
- D. Pulmonary tuberculosis
- E. Bronchiectasis

Two years ago, a 46-year-old patient was diagnosed with stage I silicosis. Currently the patient complains of escalating dyspnea, pain in the infrascapular regions. Radiograph shows a diffuse enhancement and distortion of lung markings, as well as multiple nodular shadows 2-4 mm in diameter. There is interlobar pleural density on the right. Dense shadows are found in the hilar regions. Specify the form of radiographic pulmonary fibrosis in this case:

- A. Nodular
- B. Interstitial
- C. Interstitial nodular
- D. Nodal
- E. Tumor-like

A 45-year-old male patient with acute abscess of the left lung has suddenly developed acute chest pain and dyspnea while coughing, tachycardia has increased. The control Ro-gram shows left lung collapse, the air in the left pleural cavity and a horizontal fluid level. What is the mechanism of this complication?

- A. Abscess burst into the pleural cavity
- B. Bullae rupture of the left lung
- C. Inflammation spread to the visceral pleura
- D. Atelectasis of the left lung
- E. Acute cardiovascular insufficiency

A 29-year-old unconscious patient has been delivered to a hospital. Objectively: skin and mucous membranes are pale, cyanotic, breath sounds are dramatically diminished on the right and cannot be auscultated in the lower parts, at the level of the 6 rib along the anterior axillary line

there is a wound hole with moderate bleeding and passage of air during inspiration. Radiography reveals a bullet in the pleural cavity. What is the medical tactics of choice?

- A. Emergency thoracotomy
- B. Thoracoscopy with removal of bullet
- C. Converting a tension pneumothorax into a simple (open) pneumothorax
- D. Thoracostomy
- E. Tight bandage on a wound

A 21-year-old female patient has been hospitalized on an emergency basis because of severe dyspnea, pain in the left side of chest. Body temperature is 38,8oC. The condition developed three days ago. Respiratory rate is 42/min, auscultation reveals shallow breathing. There is percussive dullness on the right starting from the middle of the blade, breath sounds cannot be heard. The left border of heart is 3 cm displaced outwards. Embryocardia is present, HR is 110/min. The right hypochondrium is painful on palpation. What urgent therapeutic measures should be taken in this situation?

- A. Emergency puncture of the pleural cavity
- B. Administration of penicillin antibiotics
- C. Injection of Lasix
- D. Injection of cardiac glycosides
- E. Transferring the patient to the thoracic surgery department

A 42-year-old male patient has been delivered to a hospital in a grave condition with dyspnea, cough with expectoration of purulent sputum, fever up to 39,5oC. The first symptoms appeared 3 weeks ago. Two weeks ago, a local therapist diagnosed him with acute right-sided pneumonia. Over the last 3 days, the patient's condition deteriorated: there was a progress of dyspnea, weakness, lack of appetite. Chest radiography confirms a rounded shadow in the lower lobe of the right lung with a horizontal fluid level, the right sinus is not clearly visualized. What is the most likely diagnosis?

- A. Abscess of the right lung
- B. Acute pleuropneumonia
- C. Right pulmonary empyema
- D. Atelectasis of the right lung
- E. Pleural effusion

A 24 y.o. patient complains of nausea, vomiting, headache, shortness of breath. He had an acute nephritis being 10 y.o. Proteinuria was found out in uri-ne. Objectively: a skin is grey-pale, the edema is not present. Accent of II tone above aorta. BP 140/100-180/100 mm Hg. Blood level of residual N2- 6,6 mmol/L, creatinine- 406 mmol/L. Day's diuresis-2300 ml, nocturia. Specific density of uri-ne is 1009, albumin- 0,9 g/L, WBC- 0-2 in f/vis. RBC.- single in f/vis., hyaline casts single in specimen. Your diagnosis?

- A. Chronic nephritis with violation of kidney function
- B. Feochromocitoma
- C. Hypertensive illness of the II degree
- D. Nephrotic syndrome
- E. Stenosis of kidney artery

The girl is 12 y.o. Yesterday she was overcooled. Now she complains on pain in suprapubic area, frequent painful uri-nation by small portions, temperature is 37, 80C. Pasternatsky symptom is negati-ve. Urinalysis: protein- 0,033 g/L, WBC- 20-25 in f/vis, RBC- 1-2 in f/vis. What di-agnosis is most probable?

- A. Acute cystitis

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

3 weeks ago the patient was ill with tonsillitis. Clinical examination reveals edema, arterial hypertension, hematuria, proteinuria (1,8 g/per day), granular and erythrocytic casts. What is the preliminary diagnosis?

- A. Glomerulonephritis
- B. Cystitis
- C. Pyelonephritis
- D. Intestinal nephritis
- E. Renal amyloidosis

A 35 y.o. male patient suffers from chronic glomerulonephritis and hemodialysis has been on for the last 3 years. He has developed irregularities in the heart activity, hypotension, progressive weakness, dyspnea. On ECG: bradycardia, 1st degree atrioventricular block, high sharpened T-waves. Before he had severely disturbed the drinking and diet regimen. What is the most likely cause of these changes?

- A. Hyperkalemia
- B. Hyperhydration
- C. Hypokalemia
- D. Hyponatremia
- E. Hypocalcemia

A 29 y.o. woman is critically ill. The illness is presented by high fever, chills, sweating, aching pain in lumbar area, discomfort during urination and frequent voiding. Pasternatsky's sign is positive in both sides. On lab examination: WBC  $20 \times 10^9/L$ ; on urine analysis: protein 0,6g/L, leukocyturia, bacteriuria. Your preliminary diagnosis.

- A. Acute pyelonephritis
- B. Exacerbation of chronic pyelonephritis
- C. Acute glomerulonephritis
- D. Acute cystitis
- E. Nephrolithiasis

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

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- A. Glomerulonephritis
- B. Cystitis

- C. Pyelonephritis
- D. Intestinal nephritis
- E. Renal amyloidosis

A 28 y.o. woman consulted a doctor about edematous face, moderate leg edema; occasionally her urine has colour of "meat slops". When she was a teenager she often fell ill with angina. Objectively: skin is pallor, body temperature is 36,80, Ps- 68/min, rhythmic. AP- 170/110 mm Hg. What urine changes are the most probable?

- A. Proteinuria, hematuria, cylindruria
- B. Increase of relative density, hematuria, bacteriuria
- C. Decrease of relative density, proteinuria, some urinary sediment
- D. Erythrocyturia and urinozuria
- E. Decrease of relative density, proteinuria

A 50 y.o. woman who suffers from chronic pyelonephritis was prescribed a combination of antibiotics for the period of exacerbation - gentamicin (80 mg 3 times a day) and bisseptol (960 mg twice a day). What consequences may be caused by such a combination of antibiotics?

- A. Acute renal insufficiency
- B. Glomerulosclerosis
- C. Chronic renal insufficiency
- D. Antibiotic combination is optimal and absolutely safe
- E. Acute suprarenal insufficiency

A 58 y.o. patient complains of weakness, leg edema, dyspnea, anorexia. He has been suffering from chronic bronchitis for many years. During the last 5 years she has been noting intensified discharge of sputum that is often purulent. Objectively: RR- 80/min, AP 120/80 mm Hg. Disseminated edema, skin is dry and pale, low turgor. In urine: intense proteinuria, cylindruria. Specify the most probable pathological process in kidneys:

- A. Renal amyloidosis
- B. Chronic glomerulonephritis
- C. Chronic pyelonephritis
- D. Interstitial nephritis
- E. Acute glomerulonephritis

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- A. Acute renal insufficiency
- B. Glomerulosclerosis
- C. Chronic renal insufficiency
- D. Antibiotic combination is optimal and absolutely safe
- E. Acute suprarenal insufficiency

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

- A. Acute interstitial nephritis
- B. Acute renal failure
- C. Acute glomerulonephritis



- D. Acute cystitis
- E. Acute renal colic

A woman of a high-risk group (chronic pyelonephritis in anamnesis) had vaginal delivery. The day after labour she complained of fever and loin pains, frequent urodynia. Specify the most probable complication:

- A. Infectious contamination of the urinary system
- B. Thrombophlebitis of veins of the pelvis
- C. Infectious hematoma
- D. Endometritis
- E. Apostasis of sutures after episiotomy

The most available and informative diagnostic method for closed trauma of the urinary bladder is:

- A. Retrograde cystography
- B. Pelvic arteriography
- C. Cystography
- D. Sonography of the urinary bladder
- E. Palpation and percussion of abdomen

A nine year old child is at a hospital with acute glomerulonephritis. Clinical and laboratory examinations show acute condition. What nutrients must not be limited during the acute period of glomerulonephritis?

- A. Carbohydrates
- B. Salt
- C. Liquid
- D. Proteins
- E. Fats

A 25 year old woman complained of edema on her face and legs, rise of blood pressure up to 160/100 mm Hg and weakness. She fell ill 3 weeks after recovering from angina. Urinalysis data: protein of 0,5 g/l, erythrocytes of 17-20/field, leukocytes of 2-3/field, erythrocyte casts. What treatment should be initiated after specifying the diagnosis?

- A. Penicillin OS
- B. Heparin
- C. Ceftriaxone
- D. Dipyridamole
- E. Ciprofloxacin

A 68 year old female patient complains about temperature rise up to 38,3°C, haematuria. ESR- 55 mm/h. Antibacterial therapy turned out to be ineffective. What diagnosis might be suspected?

- A. Renal cancer
- B. Polycystic renal disease
- C. Renal amyloidosis
- D. Urolithiasis
- E. Chronic glomerulonephritis

A 15 year old girl suddenly got arthralgia, headache, nausea, vomiting; pain and muscle tension in the lumbar area; body temperature rose up to 38 – 39°C. Pasternatsky's symptom was distinctly positive on the right. In the urine: bacteriuria, pyuria. What is the most probable diagnosis?

- A. Acute pyelonephritis

- B. Renal colic
- C. Acute glomerulonephritis
- D. Pararenal abscess
- E. Cystitis

A man, aged 25, presents with facial edema, moderate back pains, body temperature of 37,5°C, BP- 180/100 mm Hg, hematuria (up to 100 in v/f), proteinuria (2,0 g/l), hyaline casts - 10 in v/f, specific gravity - 1020. The onset of the disease is probably connected with acute tonsillitis 2 weeks ago. The most likely diagnosis is:

- A. Acute glomerulonephritis
- B. Acute pyelonephritis
- C. Cancer of the kidney
- D. Urolithiasis
- E. Chronic glomerulonephritis

A 68-year-old female patient complains about temperature rise up to 38,3°C, haematuria. ESR- 55 mm/h. Antibacterial therapy turned out to be ineffective. What diagnosis might be suspected?

- A. Renal cancer
- B. Polycystic renal disease
- C. Renal amyloidosis
- D. Urolithiasis
- E. Chronic glomerulonephritis

2 weeks after recovering from angina an 8-year-old boy developed edemata of face and lower limbs. Objectively: the patient is in grave condition, AP- 120/80 mm Hg. Urine is of dark brown colour. Oliguria is present. On urine analysis: relative density - 1,015, protein - 1,2 g/l, RBCs are leached and cover the whole vision field, granular casts - 1-2 in the vision field, salts are represented by urates (big number). What is the most likely diagnosis?

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

After supercooling a 38-year-old woman developed muscle pain, body temperature rise up to 39°C, headache, dysuria, positive Pasternatsky's symptom. In the urine: leukocyturia, bacteriuria. In blood: Decrease in Hb rate down to 103 g/l, left shift leukocytosis, ESR acceleration up to 32 mm/h. Blood urea - 6,0 millimole/l. What is the most likely diagnosis?

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

A 30-year-old woman with a long history of chronic pyelonephritis complains about considerable weakness, sleepiness, decrease in diuresis down to 100 ml per day. AP- 200/120 mm Hg. In blood: creatinine - 0,62 millimole/l, hypoproteinemia, albumines - 32 g/l, potassium - 6,8 millimole/l, hypochromic anemia, increased ESR. What is the first step in the patient treatment tactics?

- A. Haemodialysis
- B. Antibacterial therapy

- C. Enterosorption
- D. Haemosorption
- E. Blood transfusion

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

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

A 45-year-old patient with urolithiasis had an attack of renal colic. What is the mechanism of the attack development?

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

A 69-year-old female patient complains of temperature rise up to 38,3°C, haematuria. ESR - 55 mm/h. Antibacterial therapy turned out to be ineffective. What diagnosis might be suspected?

- A. Renal cancer
- B. Polycystic renal disease
- C. Renal amyloidosis
- D. Urolithiasis
- E. Chronic glomerulonephritis

2 weeks after recovering from angina a 29-year-old patient noticed face edemata, weakness, decreased work performance. There was gradual progress of dyspnea, edemata of the lower extremities, lumbar spine. Objectively: pale skin, weakening of the heart sounds, anasarca. AP-160/100 mm Hg. In urine: the relative density - 1021, protein - 5 g/l, erythrocytes - 20-30 in the field of vision, hyaline cylinders - 4-6 in the field of vision. What is the most likely diagnosis?

- A. Acute glomerulonephritis
- B. Essential hypertension
- C. Acute pyelonephritis
- D. Infectious allergic myocarditis
- E. Myxedema

A 54-year-old patient has an over 20-year history of femoral osteomyelitis. Over the last month she has developed progressing edemata of the lower extremities. Urine test reveals: proteinuria at the rate of 6,6 g/l; in blood: dysproteinemia in form of hypoalbuminemia, increase in  $\alpha_2$ - and  $\gamma$ -globulin rate, ESR - 50 mm/h. What is the most likely diagnosis?

- A. Secondary renal amyloidosis
- B. Acute glomerulonephritis
- C. Myelomatosis
- D. Chronic glomerulonephritis
- E. Systemic lupus erythematosus

A 54-year-old male patient complains of aching pain in the lumbar region, that is getting worse after standing in an upright position, physical exercise, supercooling. The patient also reports of experiencing weakness in the afternoon. Pain in the lumbar region, said about 10 years old.

Objectively: pale skin,  $t_o - 37,2^{\circ}\text{C}$ , AP- 180/100 mm Hg, minor costovertebral angle tenderness (Pasternatsky symptom). In blood: RBCs -  $3,5 \cdot 10^{12}/\text{l}$ , WBCs -  $6,5 \cdot 10^9/\text{l}$ , ESR - 22 mm/h. In urine: the relative density - 1010, leukocytes - 12-15 in the field of vision, erythrocytes - 2-3 in the field of vision. Urine bacterial count - 100000 in 1 ml. What is the most likely diagnosis?

- A. Chronic pyelonephritis
- B. Nephrolithiasis
- C. Polycystic renal disease
- D. Chronic glomerulonephritis
- E. Amyloidosis

A 35-year-old patient has been in the intensive care unit for acute renal failure due to crush for 4 days. Objectively: the patient is inadequate. Breathing rate - 32/min. Over the last 3 hours individual moist rales can be auscultated in lungs. ECG shows high T waves, right ventricular extrasystoles. CVP - 159 mm Hg. In blood: the residual nitrogen - 62 millimole/l,  $\text{K}^+$  - 7,1 millimole/l,  $\text{Cl}^-$  - 78 millimole/l,  $\text{Na}^+$  - 120 millimole/l, Ht - 0,32, Hb - 100 g/l, blood creatinine - 0,9 millimole/l. The most appropriate method of treatment would be:

- A. Hemodialysis
- B. Plasma sorption
- C. Hemosorption
- D. Plasma filtration
- E. Ultrafiltration

A 28-year-old woman has a 12-year history of chronic glomerulonephritis with latent course. Over the past six months she has developed general weakness, loss of appetite, low work performance, nausea. The patient complains of headache, pain in the joints. On examination: anemia, blood urea - 34,5 millimole/l, blood creatinine - 0,766 millimole/l, hyperkalemia. What complication has developed?

- A. Chronic renal insufficiency
- B. Acute renal insufficiency
- C. Nephrotic syndrome
- D. Renal amyloidosis
- E. Pyelonephritis

A girl is 12-year-old. Yesterday she was overcooled. Now she is complaining on pain in suprapubic area, frequent painful urination by small portions, temperature is  $37,8^{\circ}\text{C}$ . Pasternatsky symptom is negative. Urine analysis: protein - 0,033g/L, WBC-20-25inf/vis, RBC-1-2inf/vis. What diagnosis is the most probable?

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

A 30-year-old woman with a long history of chronic pyelonephritis complains about considerable weakness, sleepiness, decrease in diuresis down to 100 ml per day. AP-200/120mmHg. In blood: creatinine - 0,62 millimole/l, hypoproteinemia, albumines - 32 g/l, potassium - 6,8 millimole/l, hypochromic anemia, increased ESR. What is the first step in the patient treatment tactics?

- A. Haemodialysis

- B. Antibacterial therapy
- C. Enterosorption
- D. Haemosorption
- E. Blood transfusion

A 65-year-old patient complains of pain in the lumbar spine, moderate disuria. He has been suffering from these presentations for about half a year. Prostate volume is 45 cm<sup>3</sup> (there are hypoechogenic nodes in both lobes, capsule invasion). The rate of prostatespecific antigen is 60 ng/l. Prostate biopsy revealed an adenocarcinoma. Which of the supplemental examination methods will allow to determine the stage of neoplastic process in this patient?

- A. Computer tomography of pelvis
- B. Roentgenography of lumbar spine
- C. Excretory urography
- D. Bone scintigraphy
- E. Roentgenography of chest

A 42-year-old woman has had hyperpolymenorrhea and progressing algodismenorrhea for the last 10 years. Gynaecological examination revealed no changes of uterine cervix; discharges are moderate, of chocolate colour, uterus is slightly enlarged and painful, appendages are not palpable, the fornices are deep and painless. What is the most likely diagnosis?

- A. Uterine endometriosis
- B. Uterine carcinoma
- C. Subserous uterine fibromyoma
- D. Endomyometritis
- E. Adnexal endometriosis

A 51-year-old patient complains of having intensive bloody discharges from vagina for 15 days after delay of menstruation for 2,5 months. In anamnesis: disorders of menstrual function during a year, at the same time she felt extreme irritability and had sleep disorders. US examination results: uterus corresponds with age norms, appendages have no peculiarities, endometrium is 14 mm thick. What is the doctor's tactics?

- A. Diagnostic curettage of uterine cavity
- B. Conservative treatment of bleeding
- C. Hysterectomy
- D. Supravaginal amputation of uterus without appendages
- E. TORCH-infection test

A 2-year-old child in a satisfactory condition periodically presents with moderate proteinuria, microhematuria. USI results: the left kidney is undetectable, the right one is enlarged, there are signs of double pyelocaliceal system. What study is required to specify the diagnosis?

- A. Excretory urography
- B. Micturating cystography
- C. Retrogradeurography
- D. Doppler study of renal vessels
- E. Radioisotope renal scan

A patient complains about sudden onsets of paroxysmal pain in the right lumbar region. 2 hours after the onset the patient had hematuria. Plain radiograph of the lumbar region shows no pathological shadows. USI reveals pyelocaliectasis on the right, the left kidney is normal. What is the most likely diagnosis?

- A. Renal colic
- B. Acute appendicitis
- C. Bowel volvulus
- D. Torsion of the right ovary cyst
- E. Right renal pelvis tumour

A 12-year-old boy has a 6-year history of insulin-dependent diabetes. The disease is labile. Since recently there have been periodical rises in blood pressure. Microalbuminuria test gave positive results. The patient's condition corresponds with the following stage of diabetic nephropathy:

- A. Stage III - early-stage nephropathy
- B. Stage I - renal hypertrophy and hyperfunction
- C. Stage II - histological changes in the kidneys
- D. Stage IV - advanced clinical nephropathy
- E. V stage - chronic renal failure

A 32-year-old female complains of dizziness, headache, palpitation, tremor. For the last several months she has been under outpatient observation for the increased arterial pressure. Since recently such attacks have become more frequent and severe. Objectively: skin is covered with clammy sweat, tremor of the extremities is present. HR- 110/min, AP- 220/140 mm Hg. Heart sounds are muffled. Blood test results: WBCs-9,8 · 10<sup>9</sup>/l, ESR -22mm/h. Blood glucose - 9,8 millimole/l. What disease is the most likely cause of this crisis?

- A. Pheochromocytoma
- B. Essential hypertension
- C. Preeclampsia
- D. Primary hyperaldosteronism

A 48-year-old patient complains of having dull pain in the right lumbar region for over three years. USI shows that kidneys are of normal size, at the upper pole of the right kidney there is a fluid containing formation up to 12 cm in diameter. Excretory urograms show normal condition on the left, and the deformation of the superior renal calyces with satisfactory function on the right. What kind of disease can you think of?

- A. Simple cyst of the right kidney
- B. Multicystic kidney disease
- C. Multiple cysts of the right kidney
- D. Tumour of the right kidney
- E. Right hydronephrosis

A 58-year-old patient complains of general weakness, loss of 10 kg of weight within 1,5 months, progressive pain in the lumbar region, increased blood pressure up to 220/160 mm Hg, subfebrile temperature. Objectively: in the right hypochondrium palpation reveals a formation with uneven surface and low mobility; veins of the spermatic cord and scrotum are dilated. Blood test results: Hb- 86 g/l, ESR- 44 mm/h. Urine test results: specific gravity - 1020, protein 0,99 g/l, RBCs - cover the whole field of vision, WBCs - 4-6 in the field of vision. What is the provisional diagnosis?

- A. Renal tumour
- B. Urolithiasis
- C. Acute pyelonephritis
- D. Acute glomerulonephritis
- E. Nephroptosis

A 48-year-old patient complains of weakness, subfebrile temperature, aching pain in the kidney

region. These presentations turned up three months ago after hypothermia. Objectively: kidneys are painful on palpation, there is bilaterally positive Pasternatsky's symptom. Urine test res: acid reaction, pronounced leukocyturia, microhematuria, minor proteinuria-0,165-0,33g/l. After the urine sample had been inoculated on conventional media, bacteriuria were not found. What research is most required in this case?

- A. Urine test for Mycobacterium tuberculosis
- B. Daily proteinuria
- C. Nechiporenko urine test
- D. Zimnitsky urine test
- E. Isotope renography

A 2-year-old child in a satisfactory condition periodically presents with moderate proteinuria, microhematuria. USI results: the left kidney is undetectable, the right one is enlarged, there are signs of double pyelocaliceal system. What study is required to specify the diagnosis?

- A. Excretory urography
- B. Micturating cystography
- C. Retrogradeurography
- D. Doppler study of renal vessels
- E. Radioisotope renal sca

A 56-year-old female patient complains of recurrent attacks of intensive pain irradiating along the ureters. Urine test results: protein - 0,37 g/l, RBCs 20-25 in the field of vision, WBCs - 1214 in the field of vision. What method of instrumental diagnostics is the most informative for the diagnosis?

- A. Intravenous urography
- B. USI of kidneys
- C. Computer tomography
- D. Radioisotope renography
- E. Cystoscopy

A 53-year-old male has been admitted to a hospital for an attack of renal colic which has repeatedly occurred throughout the year. Objectively: in the region of auricles and the right elbow some nodules can be seen that are covered with thin shiny skin. Ps- 88/min, AP- 170/100 mm Hg. There is bilateral costovertebral angle tenderness (positive Pasternatsky's symptom). The patient has been scheduled for examination. What laboratory value would be most helpful for making a diagnosis?

- A. Uric acid
- B. Rheumatoid factor
- C. ESR
- D. Urine sediment
- E. Lactic acid

2 weeks after having quinsy, a 26-year-old male patient got facial edema, moderate pain in the sacrum. Objectively: body temperature is 37,5°C, AP- 100/80 mm Hg. Urinalysis results: RBC- up to 100 fresh cells in per HPF, protein - 2,2 g/l, hyaline cylinders - up to 10 per HPF, relative density 1002. What is the most likely diagnosis?

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

A 39-year-old male patient complains of moderate pain and weakness in the shoulder, back and pelvic girdle muscles, that has been progressing for the last 3 weeks; great difficulty in getting out of bed, going up and down the stairs, shaving. Dermatomyositis has been suspected. Blood test results: Hb-114g/l, WBC- 10,8·10<sup>9</sup>/l, eosinophils - 9%, ESR -22 mm/h, C-reactive protein - (++) . The alteration in the following laboratory value will be of decisive diagnostic significance:

- A. Creatine phosphokinase
- B. Ceruloplasmin
- C. Sialic acids
- D. dsDNA antibodies
- E. Gamma-globulins

A 42-year-old female patient complains of a dull pain in her left side, low-grade fever, accelerated painful urination in small portions. These presentations have been observed for three years. For a long time, the patient has had cystitis with frequent exacerbations, there is pulmonary tuberculosis in the past history. Urinalysis results: microscopic hematuria, leukocyturia. What is the most likely provisional diagnosis?

- A. Renal tuberculosis
- B. Urolithiasis
- C. Chronic pyelonephritis
- D. Renal tumor

A 6-year-old boy had had a quinsy. 9 days later, there appeared edema of the face, extremities and trunk, general health condition deteriorated. Urine became turbid. Objectively: expressive edema, ascites. AP100/55 mm Hg, diuresis - 0,2 l of urine per day. Results of the biochemical blood analysis: total protein - 50 g/l, cholesterol - 11,28 mmol/l, urea - 7,15 mmol/l, creatinine - 0,08 mmol/l. Urinalysis results: leukocytes - 3-5 per HPF, red blood cells are absent. What is the provisional diagnosis?

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

The 28 y.o. woman applied to doctor because of limited loss of the hair. In the anamnesis - she had frequent headache indisposition, arthromyalgia, fever, irregular casual sexual life, drug user. RW is negative. What examination must be done first?

- A. Examination for HIV
- B. Examination for neuropathology
- C. Examination for gonorrhoea
- D. Examination for fungi
- E. Examination for trichomoniasis

33 y.o. woman works as the secretary. Her diet contains 150 g of protein (including 100 g of animal protein), 200 g of fat, 600 g of carbohydrates. What pathology can develop from this diet?

- A. Obesity
- B. Schizophrenia
- C. Parodontosis
- D. Common cold
- E. Uterine fibromyoma



A 33 y.o. male patient was admitted to a hospital. A patient is pale, at an attempt to stand up he complains of strong dizziness. There was vomiting like coffee-grounds approximately hour ago. BP- 90/60 mm Hg., pulse- 120 b/min. In anamnesis, a patient has suffered from ulcer of the stomach, painless form during 4 years. An ulcer was exposed at gastrofibroscopy. Your diagnosis:

- A. Ulcer of stomach, complicated with bleeding
- B. Ulcer of duodenum, complicated with bleeding
- C. Erosive gastritis
- D. Acute pleurisy
- E. Acute myocardial infarction, abdominal

A 27 y.o. man complains of pain in epigastrium which is relieved by food intake. EGDFS shows antral erosive gastritis, biopsy of antral mucous presents Helicobacter Pylori. What can be diagnosed in this case?

- A. Gastritis of type B
- B. Gastritis of A type
- C. Reflux - gastritis
- D. Menetrier's disease
- E. Rigid antral gastritis

A 38 y.o. woman was hospitalized to the surgical unit with vomiting and acute abdominal pain irradiating to the spine. On laparocentesis hemmorrhagic fluid is obtained. What disease should be suspected?

- A. Acute pancreatitis
- B. Renal colic
- C. Acute enterocolitis
- D. Perforated gastric ulcer
- E. Acute appendicitis

47 y.o. patient complains of intensive skin itching, jaundice, bone pain. The skin is hyperpigmentated. There is multiple xanthelasma palpebrae. The liver is +6 cm enlarged, hard with acute edge. The blood analysis revealed total bilirubin 160 mkmol/L, direct – 110 mkmol/L, AST (asparate aminotransferase)- 2,1 mmol/L per hour, ALT– 1,8 mmol/L, alkaline phosphotase- 4,6 mmol/L per hour, cholesterol– 9,2 mmol/L, antimitochondrial antibodies M2 in a high titer. What is the probable diagnosis?

- A. Primary biliary liver cirrhosis
- B. Primary liver cancer
- C. Chronic viral hepatitis B
- D. Acute viral hepatitis B
- E. Alcoholic liver cirrhosis

The complications of acute cholecystitis which require surgical intervention are as follows EXCEPT:

- A. Jaundice
- B. Empyema of the gall-bladder
- C. Emphysematous gall-bladder
- D. Gall-bladder perforation
- E. Cholangitis conditioned by the presence of stones in the bile tract

A 40 y.o. patient was admitted to the gastroenterology with skin itching, jaundice,

discomfort in the right subcostal area, generalized weakness. On examination: skin is jaundice, traces of scratches, liver is +5 cm, spleen is 6x8 cm. In blood: alkaline phosphatase - 2,0 mmol/(hour\*L), general bilirubin - 60 μmol/L, cholesterol - 8,0 mmol/L. What is the leading syndrome in the patient?

- A. Cholestatic
- B. Cytolytic
- C. Mesenchymal inflammatory
- D. Asthenic
- E. Liver-cells insufficiency

A 51 y.o. woman complains of dull pain in the right subcostal area and epigastric area, nausea, appetite decline during 6 months. There is a history of gastric peptic ulcer. On examination: weight loss, pulse is 70 bpm, AP is 120/70 mm Hg. Diffuse tenderness and resistance of muscles on palpation. There is a hard lymphatic node 1x1cm in size over the left clavicle. What method of investigation will be the most useful?

- A. Esophagogastroduodenoscopy with biopsy
- B. Ultrasound examination of abdomen
- C. pH-metry
- D. Ureatic test
- E. Stomach X-ray

A 36 y.o. patient was admitted to the hospital with sharp pain in substernal area following occasional swallowing of a fish bone. On esophagoscopy the foreign body wasn't revealed. The pain increased and localized between scapulas. In a day temperature elevated, condition became worse, dysphagia intensified. What complication has developed?

- A. Perforation of esophagus with mediastinitis
- B. Esophageal hemorrhage
- C. Obstruction of esophagus
- D. Pulmonary atelectasis
- E. Aspirative pneumonia

A 43 y.o. woman complains of severe pain in the right abdominal side irradiating in the right supraclavicular area, fever, dryness and bitterness in the mouth. There were multiple vomitings without relief. Patient relates the onset of pain to the taking of fat and fried food. Physical examination: the patient lies on the right side, pale, dry tongue, tachycardia. Right side of abdomen is painful during palpation and somewhat tense in right hypochondrium. What is the most likely diagnosis?

- A. Perforative ulcer
- B. Acute cholecystitis
- C. Acute bowel obstruction
- D. Acute appendicitis
- E. Right-sided renal colic

A 74 y.o. female patient complains of pain, distended abdomen, nausea. She suffers from heart ischemia, postinfarction and diffusive atherosclerosis. On examination: grave condition, distended abdomen, abdominal wall fails to take active part in breathing. On laparoscopy: some cloudy effusion, one of the bowel loops is dark-blue. What is the most probable diagnosis?

- A. Mesenterial vessels thrombosis
- B. Volvulus

- C. Acute intestinal obstruction
- D. Ischemic abdominal syndrome
- E. Erysipelas

A 56 y.o. man, who has taken alcoholic drinks regularly for 20 years, complains of intensive girdle pain in the abdomen. Profuse nonformed stool 2- 3- times a day has appeared for the last 2 years, loss of weight for 8 kg for 2 years. On examination: abdomen is soft, painless. Blood amylase - 12g/L. Feces examination-neutral fat 15 g per day, starch grains. What is the most reasonable treatment at this stage?

- A. Pancreatine
- B. Contrykal
- C. Aminocapron acid
- D. Levomicytine
- E. Imodium

A 41 y.o. woman has suffered from nonspecific ulcerative colitis during 5 years. On rectoromanoscopy: marked inflammatory process of lower intestinal parts, pseudopolyposive changes of mucous. In blood: WBC-  $9,8 \times 10^9/L$ , RBC-  $3,0 \times 10^{12}/L$ , sedimentation rate- 52 mm/hour. What medication provides pathogenetic treatment of this patient?

- A. Sulfasalazine
- B. Motilium
- C. Vikasolum
- D. Linex
- E. Kreon

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

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

A patient, aged 25, suffering from stomach ulcer. Had a course of treatment in the gastroenterological unit. 2 weeks later developed constant pain, increasing and resistant to medication. The abdomen is painful in epigastric area, moderate defence in pyloroduodenal area. Which complication development aggravated the patient's state?

- A. Malignisation
- B. Penetration
- C. Perforation
- D. Haemorrhage
- E. Stenosis

A male patient complains of heartburn which gets stronger while bending the body, substernal pain during swallowing. There is a hiatus hernia on X-ray. What disorder should be expected at gastroscopy?

- A. Gastroesophageal reflux

- B. Chronic gastritis
- C. Gastric peptic ulcer
- D. Acute erosive gastritis
- E. Duodenal peptic ulcer

A 43 y.o. male complains of stomach pain, which relieves with defecation, and is accompanied by abdominal winds, rumbling, the feeling of incomplete evacuation or urgent need for bowel movement, constipation or diarrhea in alternation. These symptoms have lasted for over 3 months. No changes in laboratory tests. What is the most likely diagnosis?

- A. Irritable bowel syndrome
- B. Spastic colitis
- C. Colitis with hypertonic type dyskinesia
- D. Chronic enterocolitis, exacerbation phase
- E. Atonic colitis

A 76 y.o. woman complains of progressing swallowing disorder, mostly she has had problems with solid food for the last 6 weeks. Sometimes she has regurgitation of solid masses. Swallowing is not painful. She lost 6 kg. 10 years ago she had myocardial infarction, she takes constantly aspirin and prolonged nitrates. She consumes alcohol in moderate proportions, smokes. Objectively: icteric skin, neck has no peculiarities, lymph nodes are not enlarged. Thorax has no changes, cardiovascular system has no evident changes. Liver is +3 cm. What is the preliminary diagnosis?

- A. Cancer of esophagus
- B. Diaphragmatic hernia
- C. Diffuse constriction of esophagus
- D. Myasthenia
- E. Esophageal achalasia

A 38 y.o. man complains of having occasional problems with swallowing of both hard and fluid food for many months. Sometimes he feels intense pain behind his breast bone, especially after hot drinks. There are asphyxia onsets at night. He has not put off weight. Objectively: his general condition is satisfactory, skin is of usual colour. Examination revealed no changes of gastrointestinal tract. X-ray picture of thorax organs presents esophagus dilatation with level of fluid in it. What is the preliminary diagnosis?

- A. Esophagus achalasia
- B. Myasthenia
- C. Cancer of esophagus
- D. Esophagus candidosis
- E. Gastroesophageal reflux

A 35 y.o. woman consulted a doctor about occasional pains in paraumbilical and iliac region that reduce after defecation or passage of gases. Defecation takes place up to 6 times a day, stool is not solid, with some mucus in it. Appetite is normal, she has not put off weight. First such symptoms appeared 1,5 year ago, but colonoscopy data reveals no organic changes. Objectively: abdomen is soft, a little bit painful in the left iliac region. Blood and urine are normal. What is the preliminary diagnosis?

- A. Irritable bowels syndrome
- B. Celiac disease
- C. Crohn's disease
- D. Pseudomembranous colitis

## E. Dispancreatism

The family doctor examined a patient and diagnosed an acute bleeding of an intestine.

What is professional tactics of the doctor in this situation?

- A. The urgent hospitalization in surgical department
- B. To inject intravenously the aminocapronic acid
- C. The urgent hospitalization in therapeutic department
- D. Treatment at a day time hospital
- E. Treatment at home

A 27 y.o. man complained of aching epigastric pain right after meal, heartburn and nausea. Stomach endoscopy revealed a large amount of mucus, hyperemia and edema of mucous membrane in gastric fundus with areas of atrophy. Make a diagnosis.

- A. Chronic gastritis of type A
- B. Chronic gastritis of type B
- C. Peptic ulcer of stomach
- D. Chronic gastritis of type C
- E. Menetrier's disease

47 y.o. patient complains of intensive skin itching, jaundice, bone pain. The skin is hyperpigmented. There are multiple xanthelasma palpebrae. The liver is +6 cm enlarged, solid with acute edge. The blood analysis revealed total bilirubin - 160  $\mu\text{mol/L}$ , direct - 110  $\mu\text{mol/L}$ , AST- 2,1  $\text{mmol/L}$ , ALT- 1,8  $\text{mmol/L}$ , alkaline phosphatase - 4,6  $\text{mmol/L}$ , cholesterol- 9,2  $\text{mmol/L}$ , antimitochondrial antibodies M2 in a high titer. What is the probable diagnosis?

- A. Primary biliary liver cirrhosis
- B. Primary liver cancer
- C. Chronic viral hepatitis B
- D. Acute viral hepatitis B
- E. Alcoholic liver cirrhosis

A 60 y.o. woman complains of unbearable pains in the right hypochondrium. In the medical history: acute pancreatitis. Body temperature is 38, 20. Objectively: sclera icteritiousness. No symptoms of peritonium irritation are present. There are positive Ortner's and Hubergrits-Skulski's symptoms. Urine diastase is 320 g/h. What diagnosis is the most probable?

- A. Chronic pancreatitis
- B. Acute cholangitis
- C. Chronic cholecystitis
- D. Acute cholecystitis
- E. Cancer of pancreas

A 42 y.o. man who has been ill with duodenal ulcer for 20 years complains of getting a sense of heaviness in stomach after meal, foul-smelling eructation, vomiting, weight loss. Objectively: his state is relatively satisfactory, tissue turgor is diminished. On palpation the belly is soft, there are no symptoms of peritonium irritation, "splashing sounds" in epigastrium. Defecation - once in 3 days. What complication corresponds with the patient's state and described clinical presentations?

- A. Ulcerative pyloric stenosis
- B. Concealed ulcer perforation
- C. Stomach cancer

- D. Ulcer penetration
- E. Chronic pancreatitis

A 63 y.o. woman complains of motiveless weakness, rapid fatigability, loss of appetite, aversion to meat. Two days ago she had stomach bleeding. Objectively: temperature - 37,5, BR- 20/min, Ps- 96/min, AP- 110/75 mm Hg. On palpation in epigastrium - pain and muscle tension. Blood count: Hb- 82 g/L, ESR- 35 mm/h. What examination will allow to make a diagnosis?

- A. Cytologic
- B. Radiography
- C. Endoscopy
- D. Stomach content examination
- E. Coprology

A 41 y.o. woman has suffered from nonspecific ulcerative colitis for 5 years. On rectoromanoscopy: evident inflammatory process of lower intestinal parts, pseudopolyposive changes of mucous membrane. In blood: WBC- 9,8\*10<sup>9</sup>/L, RBC- 3,0\*10<sup>12</sup>/L, sedimentation rate - 52 mm/hour. What medication provides pathogenetic treatment of this patient?

- A. Sulfasalazine
- B. Motilium
- C. Vikasolum
- D. Linex
- E. Kreon

Plan radiography of the patient's abdominal cavity reveals some hemispherical lucent areas situated above distinct horizontal levels. What is the cause of such X-ray picture?

- A. Intestinal obstruction
- B. Perforative ulcer
- C. Meteorism
- D. Cancer of large intestine
- E. Price's disease

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

- A. Development of chronic hepatitis
- B. Recurrence of viral hepatitis type B
- C. Biliary dyskinesia
- D. Residual effects of old viral hepatitis type B
- E. Development of liver cirrhosis

A patient is 65 y.o. He has been a smoker for 40 years. Hew has lost 10 kg during the last 3 months. Complains of pain in the epigastric area after taking meals, diarrhea, jaundice. Physical examination revealed enlarged, painless gallbladder. Feces are light-coloured and clay-like. Blood analysis revealed increased level of whole and direct bilirubin, alkaline phosphotase and glutaminepyruvate transferase. Clinical urine analysis showed positive bilirubin reaction and negative urobilinogene reaction. Where is the initial process that caused these changes?

- A. In pancreas
- B. In common bile duct

- C. In liver
- D. In duodenum
- E. In gallbladder

A 75 y.o. man has acute pain in the paraumbilical region accompanied by vomiting and feeling of abdominal swelling in approximately 30 minutes after meals. He lost 10 kg during the last months because he doesn't eat in order to avoid pain. Abdomen examination reveals no changes in the periods between pain attacks. Above the right femoral artery a murmur can be auscultated, peripheral pulsation in the lower extremities is weak. X-ray examination of stomach and colonoscopy revealed no changes. What is the leading factor of this pathogenesis?

- A. Ischemia
- B. Psychogenic changes
- C. Neoplastic process
- D. Inflammation
- E. Transient obstruction

A 38 y.o. woman was hospitalized to the surgical unit with acute abdominal pain irradiating to the spine and vomiting. On laparocentesis hemorrhagic fluid is obtained. What disease is suspected?

- A. Acute pancreatitis
- B. Renal colic
- C. Acute enterocolitis
- D. Perforative gastric ulcer
- E. Acute appendicitis

A 28 y.o. man fell seriously ill, he feels chill, has got a fever, body temperature raised up to 38,5, paroxysmal pain in the left iliac region, frequent defecation in form of fluid bloody and mucous mass. Abdomen palpation reveals painfulness in its left half, sigmoid colon is spasmed. What is the most probable diagnosis?

- A. Acute dysentery
- B. Amebiasis
- C. Colibacillosis
- D. Nonspecific ulcerative colitis
- E. Malignant tumors of large intestine

A 50 y.o. woman for 1 year complained of attacks of right subcostal pain after fatty meal. Last week the attacks have repeated every day and become more painful. What diagnostic study would you recommend?

- A. Ultrasound examination of the gallbladder
- B. Liver function tests
- C. X-ray examination of the gastrointestinal tract
- D. Ultrasound study of the pancreas
- E. Blood cell count

A 39 y.o. woman complains of squeezed epigastric pain 1 hour after meal and heartburn. She had been ill for 2 years. On palpation, there was moderate tenderness in pyloroduodenal area. Antral gastritis was revealed on gastroscopy. What study can establish genesis of the disease?

- A. Revealing of Helicobacter infection in gastric mucosa
- B. Detection of autoantibodies in the serum

- C. Gastrin level in blood
- D. Examination of stomach secretion
- E. Examination of stomach motor function

A patient complains of feeling heaviness behind his breast bone, periodical sensation of food stoppage, dysphagia. During the X-ray examination barium contrast revealed a single saccular outpouching of anterodextral esophagus wall with regular contours and rigidly outlined neck. What is the most probable diagnosis?

- A. Esophageal diverticulum
- B. Cancer of esophagus
- C. Hiatal hernia
- D. Varix dilatation of esophageal veins
- E. Esophageal polyp

A patient suffers from chronic recurrent pancreatitis with evident disturbance of exocrinous function. After intake of rich spicy food and spirits his stool becomes fatty. Reduced production of what factor is the most probable cause of steatorrhea?

- A. Lipase
- B. Tripsin
- C. Acidity of gastric juice
- D. Amylase
- E. Alkaline phosphatase

A 45 y.o. man complains of having intensive pain in the epigastric region 1,5- 2 hours later after food intake. He has been suffering from ulcer for 11 years. Objectively: t 0- 36, 50, RR- 16/min, Ps- 70 bpm, AP- 120/80 mm Hg. On palpation: local painfulness in the right epigastric region. What parameters of intragastric Ph-meter in the region of stomach body are the most typical for this patient's disease?

- A. pH = 1,0-2,0
- B. pH = 3,0-4,0
- C. pH = 4,0-5,0
- D. pH = 5,0-6,0
- E. pH = 6,0-7,0

A patient with hepatic cirrhosis drank some spirits that resulted in headache, vomiting, aversion to food, insomnia, jaundice, fetor hepaticus, abdominal swelling. What complication of hepatic cirrhosis is meant?

- A. Hepatocellular insufficiency
- B. Hemorrhage from varicosely dilatated veins of esophagus
- C. Portal hypertension
- D. Acute stomach ulcer
- E. Thrombosis of mesenteric vessels

A 48 year old man complains of fatigue and shortness of breath. His Ht is 32%, and Hb - 103 g/l. Peripheral blood smear reveals macrocytosis. Serum vitamin B12 level is 90 pg/ml (normal is 170 to 940); serum folate level is 6 ng/ml (normal is 2 to 14). Possible causes to consider include all of the following EXCEPT:

- A. Colonic diverticulitis
- B. Vegetarianism
- C. Regional enteritis



- D. Pancreatitis
- E. Fish tapeworm infection

A 41 year old patient was admitted to the intensive care unit with haemorrhagic shock due to gastric bleeding. He has a history of hepatitis B during the last 5 years. The source of bleeding are esophageal veins. What is the most effective method for control of the bleeding?

- A. Introduction of obturator nasogastric tube
- B. Intravenous administration of pituitrin
- C. Hemostatic therapy
- D. Operation
- E. Administration of plasma

A 75 year old man who has been suffering from diabetes for the last six months was found to be jaundiced. He was asymptomatic except for weight loss at the rate of 10 pounds in 6 months. Physical examination revealed a hard, globular, right upper quadrant mass that moves during respiration. A CT scan shows enlargement of the head of the pancreas, with no filling defects in the liver. The most likely diagnosis is:

- A. Carcinoma of the head of the pancreas
- B. Infectious hepatitis
- C. Haemolytic jaundice
- D. Malignant biliary stricture
- E. Metastatic disease of liver

A 50 year old woman complained of attacks of right subcostal pain after fatty meal she has been suffering from for a year. Last week the attacks repeated every day and became more painful. What diagnostic study would you recommend?

- A. Ultrasound examination of the gallbladder
- B. Liver function tests
- C. X-ray examination of the gastrointestinal tract
- D. Ultrasound study of the pancreas
- E. Blood cell count

During an operation for presumed appendicitis the appendix was found to be normal; however, the terminal ileum is evidently thickened and feels rubbery, its serosa is covered with grayish-white exudate, and several loops of apparently normal small intestine are adherent to it. The most likely diagnosis is:

- A. Crohn's disease of the terminal ileum
- B. Perforated Meckel's diverticulum
- C. Ulcerative colitis
- D. Ileocecal tuberculosis
- E. Acute ileitis

A 68 year old patient has been suffering from chronic pancreatitis for 35 years. During the last 5 years he has been observing abatement of pain syndrome, abdominal swelling, frequent defecations up to 3-4 times a day (feces are greyish, glossy, with admixtures of undigested food), progressing weight loss. Change of symptom set is caused by joining of:

- A. Exocrine pancreatic insufficiency
- B. Endocrine pancreatic insufficiency
- C. Syndrome of lactase deficiency
- D. Irritable bowels syndrome

#### E. Chronic enterocolitis

A 32 year old patient complains about heartburn and dull pain in the epigastrium that appear 2-3 hours after meal. Exacerbations happen in spring and in autumn. The patient has food intolerance of eggs and fish. Objectively: stomach palpation reveals painfulness in the gastroduodenal area. Electrophasoduodenoscopy revealed a 5 mm ulcer on the anterior wall of duodenum. Urease test is positive. What is the most probable leading mechanism of disease development?

- A. Helicobacterial infection
- B. Dietary allergy
- C. Autoantibody production
- D. Reduced prostaglandin synthesis
- E. Disorder of gastric motor activity

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

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

A patient complains about pyrosis and permanent pain behind his breastbone. When he bends forward after eating there appears regurgitation. Roentgenological examination revealed extrasaccular cardiofunctional hernia of esophageal opening of diaphragm. Esophagoscopy revealed signs of reflux-esophagitis. What is the necessary treatment tactics?

- A. Operation in a surgical department
- B. Conservative treatment in an outpatients' clinic
- C. Conservative treatment in the therapeutic hospital
- D. Conservative treatment in a surgical department
- E. Treatment at a health resort

A 12 year old child has the ulcer disease of stomach. What is the etiology of this disease?

- A. Intestinal bacillus
- B. Helicobacter pylori
- C. Salmonella
- D. Lambliosis
- E. Influenza

A 27 year old man complains of pains in epigastrium which are relieved by food intake. EGDFS shows antral erosive gastritis, biopsy of antral mucous presents Helicobacter Pylori. Diagnosis is:

- A. Gastritis of type B
- B. Gastritis of type A
- C. Reflux-gastritis
- D. Menetrier's gastritis

E. Rigid antral gastritis

A 75 year old man who has been suffering from diabetes for the last six months was found to be jaundiced. He was asymptomatic except for weight loss at the rate of 10 pounds in 6 months. Physical examination revealed a hard, globular, right upper quadrant mass that moves during respiration. A CT scan shows enlargement of the head of the pancreas, with no filling defects in the liver. The most likely diagnosis is:

- A. Carcinoma of the head of the pancreas
- B. Infectious hepatitis
- C. Haemolytic jaundice
- D. Malignant biliary stricture
- E. Metastatic disease of liver

A 22 year old woman complained of right subcostal aching pain, nausea, and decreased appetite. She fell ill 2 months after appendectomy when jaundice appeared. She was treated in an infectious hospital. 1 year later above mentioned symptoms developed. On exam: the subicteric sclerae, enlarged firm liver. Your preliminary diagnosis:

- A. Chronic viral hepatitis
- B. Calculous cholecystitis
- C. Gilbert's disease
- D. Acute viral hepatitis
- E. Chronic cholangitis

A male patient, 60 years old, tobacco smoker for 30 years, alcoholic, has dysphagia and weight loss since 4 months. Suggested diagnosis?

- A. Cancer of the esophagus
- B. Esophageal achalasia
- C. Hunter's disease
- D. Esophagitis
- E. Esophageal diverticulum

A healthy 75 year old woman who leads a moderately active way of life went through a preventive examination that revealed serum concentration of common cholesterol at the rate of 5,1 millimole/l and HDL (high-density lipoproteins) cholesterol at the rate of 70 mg/dl. ECG reveals no pathology. What dietary recommendation is the most adequate?

- A. Any dietary changes are necessary
- B. Decrease of cholesterol consumption
- C. Decrease of saturated fats consumption
- D. Decrease of carbohydrates consumption
- E. Increase of cellulose consumption

A 54 year old male patient complains about permanent dull pain in the mesogastral region, weight loss, dark blood admixtures in the feces, constipations. He put off 10 kg within a year. In blood: erythrocytes:  $3,5 \cdot 10^{12}/l$ , Hb- 87 g/l, leukocytes -  $12,6 \cdot 10^9/l$ , stab neutrophil shift, ESR- 43 mm/h. What is the most probable diagnosis?

- A. Cancer of transverse colon
- B. Gastric ulcer
- C. Chronic colitis
- D. Chronic pancreatitis
- E. Stomach cancer

A 32 year old patient suffering from chronic viral hepatitis complains about dull pain in the right subcostal area, nausea, dry mouth. Objectively: liver dimensions are 13-21-11 cm (according to Kurlov), spleen is by 2 cm enlarged, aspartate aminotransferase is 3,2 micromole/l·h, alanine aminotransferase - 4,8 millimole/l·h. Serological study revealed HBeAg, high concentration of DNA HBV . What drug should be chosen for treatment of this patient?

- A.  $\alpha$ -interferon
- B. Acyclovir
- C. Remantadinum
- D. Arabinoside monophosphate
- E. Essentiale-forte

A 41 year old woman has suffered from nonspecific ulcerative colitis for 5 years. On rectoromanoscopy: evident inflammatory process of lower intestinal parts, pseudopolyposive changes of mucous membrane. In blood: WBC-  $9,8 \cdot 10^9/l$ , RBC-  $3,0 \cdot 10^{12}/l$ , ESR - 52 mm/hour. What medication provides pathogenetic treatment of this patient?

- A. Sulfosalasine
- B. Motilium
- C. Vikasolum
- D. Linex
- E. Kreon

A patient suffering from gastroesophageal reflux has taken from time to time a certain drug that "reduces acidity"for 5 years. This drug was recommended by a pharmacist. The following side effects are observed: osteoporosis, muscle weakness, indisposition. What drug has such following effects?

- A. Aluminium-bearing antacid
- B. Inhibitor of proton pump
- C. 2-blocker
- D. Metoclopramide
- E. Gastrozepin

A 20-year-old woman has a 3-4 month history of bloody diarrhoea; stool examination proved negative for ova and parasites; stool cultures negative for clostridium, campylobacter and yersinia; normal small bowel series; edema, hyperemia and ulceration of the rectum and sigmoid colon seen on sigmoidoscopic examination. Select the most likely diagnosis:

- A. Ulcerative colitis
- B. Gastroenteritis
- C. Carcinoid syndrome
- D. Zollinger-Ellison syndrome
- E. Granulomatous colitis

A 60-year-old woman, mother of 6 children, developed a sudden onset of upper abdominal pain radiating to the back, accompanied by nausea, vomiting, fever and chills. Subsequently, she noticed yellow discoloration of her sclera and skin. On physical examination the patient was found to be febrile with temp. of  $38,9^{\circ}C$ , along with right upper quadrant tenderness. The most likely diagnosis is:

- A. Choledocholithiasis
- B. Benign biliary stricture
- C. Malignant biliary stricture
- D. Carcinoma of the head of the pancreas

#### E. Choledochal cyst

A 45-year-old woman, mother of four children, comes to the emergency room complaining of a sudden onset of the epigastric and right upper quadrant pain, radiating to the back, accompanied by vomiting. On examination, tenderness is elicited in the right upper quadrant, bowel sounds are decreased, and laboratory data shows leukocytosis, normal serum levels of amylase, lipase, and bilirubin. The most likely diagnosis is:

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

A 50-year-old man comes to the emergency room with a history of vomiting of 3 days' duration. His past history examination reveals that for about 20 years he has been suffering from epigastric pain lasting for 2 to 3 weeks, during early spring and autumn. He remembers getting relief from pain by taking milk and antacids. Physical examination showed a fullness in the epigastric area with visible peristalsis, absence of tenderness, and normal active bowel sounds. The most likely diagnosis is:

- A. Gastric outlet obstruction
- B. Small bowel obstruction
- C. Volvulus of the colon
- D. Incarcerated umbilical hernia
- E. Cholecystitis

A 24-year-old law student is brought to the emergency room complaining of severe abdominal pain of 6-8 hours duration. He had been to a party the night before. The pain is in the epigastrium radiating to the back and is accompanied by nausea. The patient had vomited twice prior to coming to the emergency room. Clinical examination revealed that the young man was anxious, with acute condition, with a regular pulse rate of 100/min, blood pressure of 100/68 mm Hg, and body temperature of 38, 1°C. The most likely diagnosis is:

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

In which of the following disorders does the pathophysiology of portal hypertension involve presinusoidal intrahepatic obstruction?

- A. Congenital hepatic fibrosis
- B. Alcoholic cirrhosis
- C. Hemochromatosis
- D. Budd-Chiari syndrome
- E. Cavernomatous transformation of the portal vein

A female patient has been suffering from pain in the right subcostal area, bitter taste in the mouth, periodical bile vomiting for a month. The patient put off 12 kg. Body temperature in the evening is 37, 6°C. Sonography revealed that bile bladder was 5,5x2,7 cm large, its wall - 0,4 cm, choledochus - 0,8 cm in diameter. Anterior liver segment contains a roundish hypoechoic formation up to 5 cm in diameter and another two up to 1,5 cm each, walls of these formations

are up to 0,3 cm thick. What is the most likely diagnosis?

- A. Alveolar echinococcus of liver
- B. Liver cancer
- C. Liver abscess
- D. Cystous liver cancer
- E. Paravesical liver abscesses

In autumn a 25-year-old patient developed stomach ache that arose 1,5-2 hours after having meals and at night. He complains about pyrosis and constipation. The pain is getting worse after consuming spicy, salty and sour food, it can be relieved by means of soda and hotwater bag. The patient has been suffering from this disease for a year. Objectively: furred moist tongue. Abdomen palpation reveals epigastric pain on the right, resistance of abdominal muscles in the same region. What is the most likely diagnosis?

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

A 50-year-old patient complains about having pain attacks in the right subcostal area for about a year. He pain arises mainly after taking fattening food. Over the last week the attacks occurred daily and became more painful. On the 3rd day of hospitalization the patient presented with icteritiousness of skin and scleras, light-colored feces and dark urine. In blood: neutrophilic leukocytosis -  $13,1 \cdot 10^9/l$ , ESR - 28 mm/h. What is the most likely diagnosis?

- A. Chronic calculous cholecystitis
- B. Chronic recurrent pancreatitis
- C. Fatty degeneration of liver
- D. Chronic cholangitis, exacerbation stage
- E. Hypertensive dyskinesia of gallbladder

A patient suffering from gastroesophageal reflux has taken from time to time a certain drug that "reduces acidity" over 5 years. This drug was recommended by a pharmacist. The following side effects are observed: osteoporosis, muscle asthenia, indisposition. What drug has such following effects?

- A. Aluminium-bearing antacid
- B. Inhibitor of proton pump
- C. H<sub>2</sub>-blocker
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- A. Duodenal ulcer
- B. Chronic cholecystitis
- C. Diaphragmatic hernia
- D. Stomach ulcer
- E. Chronic pancreatitis

4 hours after having meals a patient with signs of malnutrition and steatorrhea experiences stomach pain, especially above navel and to the left of it. Diarrheas take turns with constipation lasting up to 3-5 days. Palpation reveals moderate painfulness in the choledochopancreatic region. The amylase rate in blood is stable. X-ray reveals some calcifications located above navel. What is the most likely diagnosis?

- A. Chronic pancreatitis
- B. Chronic gastroduodenitis
- C. Duodenal ulcer
- D. Zollinger-Ellison syndrome
- E. Chronic calculous cholecystitis

A 43-year-old female patient complains of unstable defecation with frequent constipations, abdominal swelling, headache, sleep disturbance. Body weight is unchanged. What disease are these clinical presentations typical for?

- A. Irritable colon syndrome
- B. Chronic enteritis
- C. Chronic pancreatitis
- D. Chronic atrophic gastritis
- E. Colorectal cancer

A 23-year-old patient complains of a dull ache, sensation of heaviness and distention in the epigastrium immediately after meals, foul-smelling eructation; dry mouth, empty stomach nausea, diarrhea. Objectively: the skin is pale, the patient is of thin build. Abdomen is soft on palpation, there is epigastric pain. The liver does not extend beyond the costal arch. In blood: Hb - 110 g/l, RBCs -  $3,4 \cdot 10^{12}/l$ , WBC count is normal. ESR - 16 mm/h. What is the most informative study that will allow make a diagnosis?

- A. Esophageal gastroduodenoscopy
- B. X-ray of digestion organs
- C. Study of gastric juice
- D. pH-metry
- E. Duodenal probing

A 49-year-old patient complains of deglutition problems, especially with solid food, hiccups, voice hoarseness, nausea, regurgitation, significant weight loss (15 kg within 2,5 months). Objectively: body weight is reduced. Skin is pale and dry. In lungs: vesicular breathing, heart sounds are loud enough, heart activity is rhythmic. The abdomen is soft, painless on palpation. Liver is not enlarged. What study is required to make a diagnosis?

- A. Esophageal duodenoscopy along with biopsy
- B. Clinical blood test
- C. X-ray of digestive tract organs
- D. X-ray in Trendelenburg's position
- E. Study of gastric secretion

A 60-year-old patient had eaten too much fatty food, which resulted in sudden pain in the right subcostal area, nausea, bilious vomiting, strong sensation of bitterness in the mouth. Two days later the patient presented with jaundice, dark urine. Objectively: sclera and skin are icteric, abdomen is swollen, liver is increased by 3 cm, soft, painful on palpation, Ortner's, Kehr's, Murphy's, Zakharyin's, MayoRobson's symptoms are positive. Which method should be applied for diagnosis in the first place?

- A. USI of gallbladder and biliary duct

- B. Fibrogastroduodenoscopy
- C. X-ray of abdominal organs
- D. Radionuclide scanning of liver and gallbladder
- E. Diagnostic laparotomy

A 60-year-old woman, mother of 6 children, developed a sudden onset of upper abdominal pain radiating to the back, accompanied by nausea, vomiting, fever and chills. Subsequently, she noticed yellow discoloration of her sclera and skin. On physical examination the patient was found to be febrile with temp of 38, 9°C, along with right upper quadrant tenderness. The most likely diagnosis is:

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- B. Benign biliary stricture
- C. Malignant biliary stricture
- D. Carcinoma of the head of the pancreas
- E. Choledochal cyst

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- C. Myocardial infarction
- D. Sigmoid diverticulitis
- E. Acute pancreatitis

During an operation for presumed appendicitis the appendix was found to be normal; however, the terminal ileum is evidently thickened and feels rubbery, its serosa is covered with grayish-white exudate, and several loops of apparently normal small intestine are adherent to it. The most likely diagnosis is:

- A. Crohn's disease of the terminal ileum
- B. Perforated Meckel's diverticulum
- C. Ulcerative colitis
- D. Ileocecal tuberculosis
- E. Acute ileitis

A female patient has been suffering from pain in the right subcostal area, bitter taste in the mouth, periodical bile vomiting for a month. The patient put off 12 kg. Body temperature in the evening is 37, 6°C. Sonography revealed that bile bladder was 5,5x2,7 cm large, its wall - 0,4 cm, choledochus - 0,8 cm in diameter. Anterior liver segment contains a roundish hypoechoic formation up to 5 cm in diameter and another two up to 1,5 cm each, walls of these formations are up to 0,3 cm thick. What is the most likely diagnosis?

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- C. Diaphragmatic hernia
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- E. Chronic pancreatitis

4 hours after having meals a patient with signs of malnutrition and steatorrhea experiences stomach pain, especially above navel and to the left of it. Diarrheas take turns with constipation lasting up to 3-5 days. Palpation reveals moderate painfulness in the choledochopancreatic region. The amylase rate in blood is stable. X-ray reveals some calcifications located above navel. What is the most likely diagnosis?

- A. Chronic pancreatitis
- B. Chronic gastroduodenitis
- C. Duodenal ulcer
- D. Zollinger-Ellison syndrome
- E. Chronic calculous cholecystitis

A 51-year-old female patient complains of frequent defecation and liquid blood-streaked stools with mucus admixtures, diffuse pain in the inferolateral abdomen, 6 kg weight loss over the previous month. Objectively: body temperature - 37, 4°C, malnutrition, skin is pale and dry. Abdomen is soft, sigmoid is painful and spasmodic, makes a rumbling sound. Liver is dense, painful, extends 3 cm below the costal margin. What is the most likely diagnosis?

- A. Non-specific ulcerative colitis
- B. Bacillary dysentery
- C. Sprue
- D. Intestinal enzymopathy
- E. Helminthic invasion

A 50-year-old patient complains about having pain attacks in the right subcostal area for about a year. He pain arises mainly after taking fattening food. Over the last week the attacks occurred daily and became more painful. On the 3rd day of hospitalization the patient presented with icteritiousness of skin and scleras, lightcolored feces and dark urine. In blood: neutrophilic leukocytosis -  $13,1 \cdot 10^9/l$ , ESR- 28 mm/h. What is the most likely diagnosis?

- A. Chronic calculous cholecystitis
- B. Chronic recurrent pancreatitis
- C. Fatty degeneration of liver
- D. Chronic cholangitis, exacerbation stage
- E. Hypertensive dyskinesia of gallbladder

A 6-year-old child has duodenal ulcer. What antibacterial drug should be coadministered together with metronidazole and De-Nol in order to eradicate Helicobacter pylori infection?

- A. Amoxicillin
- B. Tetracycline
- C. Oleandomycin
- D. Biseptol
- E. Sulfadimethoxinum

A 35-year-old patient complains of heartburn, sour eructation, burning, compressing retrosternal pain and pain along the esophagus rising during forward bending of body. The patient hasn't been examined, takes Almagel on his own initiative, claims to feel better after its taking. Make a provisional diagnosis:

- A. Gastroesophageal reflux disease
- B. Functional dyspepsia
- C. Cardiospasm
- D. Gastric ulcer
- E. Duodenal ulcer

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A patient complains of retrosternal pain, difficult swallowing, over 10 kg weight loss within three months, general weakness. In blood: hypochromic anaemia, neutrophilic leukocytosis. In feces: weakly positive Gregersen's reaction. On esophagram a filling defect with ill-defined serrated edges shows up along a large portion of the esophagus. What is the most likely diagnosis?

- A. Esophageal carcinoma
- B. Benign tumour
- C. Esophageal achalasia
- D. Peptic ulcer
- E. Sideropenic dysphagia

A 13-year-old girl has a 5-year history of pain in the right hypochondrium irradiating to the right shoulder blade. The pain attacks are usually associated with diet violations, they are short and can be easily relieved by antispasmodic drugs. During a pain attack, palpation of the abdomen is painful, the pain is most intensive in the projection of the gallbladder. What is the most likely diagnosis?

- A. Biliary dyskinesia
- B. Chronic cholecystitis
- C. Chronic gastroduodenitis
- D. Chronic pancreatitis
- E. Duodenal ulcer

A 48-year-old male patient complains of constant pain in the upper abdomen, mostly on the left, that is getting worse after taking meals; diarrhea, weight loss. The patient is an alcohol abuser. 2 years ago he had acute pancreatitis. Blood amylase is 4 g/h·l. Coprogram shows steatorrhea, creatorrhea. Blood glucose is 6,0 mmol/l. What treatment is indicated for this patient?

- A. Panzinorm forte
- B. Insulin
- C. Gastrozepin
- D. Contrycal
- E. No-spa

A 24-year-old female patient complains of pain in the right hypochondrium that is getting worse after taking meals; nausea, fever up to 37,7°C, icteric skin, pain in the large joints. These presentations have been observed for 8 months. Objectively: hepatosplenomegaly. Blood test results: ESR- 47 mm/h, total bilirubin - 86,1 mmol/l, direct bilirubin - 42,3 mmol/l. Total protein - 62 g/l, albumins - 40%, globulins - 60%, gamma globulins - 38%. Viral hepatitis markers were not detected. The antibodies to smooth muscle cells are present. On ultrasound the portal vein diameter was of 1 cm. What is the most likely diagnosis?

- A. Autoimmune hepatitis
- B. Primary biliary cirrhosis

- C. Gilbert's syndrome
- D. Cholangiogenic hepatitis
- E. Hemachromatosis

A 57-year-old female complains of having a sensation of esophageal compression, palpitation, difficult breathing during eating solid food, occasional vomiting with a full mouth, "wet pillow" sign at night for the last 6 months. Objectively: body temperature -39 °C, height - 168 cm, weight - 72 kg, Ps- 76/min, AP- 120/80 mm Hg. X-ray revealed a considerable dilation of esophagus and its constriction in the cardial part. What pathology is most likely to have caused dysphagia in this patient?

- A. Achalasia cardiae
- B. Primary esophagism
- C. Hiatal hernia
- D. Esophageal carcinoma
- E. Reflux esophagitis

A 64-year-old patient has been referred to planned hospitalization for general weakness, poor appetite, progressive jaundice which appeared over 3 weeks ago and wasn't accompanied by pain syndrome. Objectively: body temperature is at the rate of 36,8°C, Ps-78/min, abdomen is soft and painless, the symptoms of peritoneal irritation are present, palpation reveals a dramatically enlarged, tense gallbladder. What disease are these symptoms typical for?

- A. Cancer of the pancreatic head
- B. Duodenal ulcer
- C. Acute cholecystitis
- D. Chronic cholecystitis
- E. Lamblia-induced cholecystitis

A patient is 31 years old. Double-contrast barium swallow revealed a filling defect on the posterior wall in the middle segment of esophagus. The defect looked like a well-defined oval 1,8x1,3 cm large. Mucosal folds adjacent to the defect were intact, peristalsis and elasticity of the walls remained unchanged. Digestive tract problems were absent. What is the provisional diagnosis?

- A. Esophageal tumour
- B. Achalasia cardia
- C. Esophageal burn
- D. Diverticulum
- E. Barrett's esophagus

A 28-year-old male patient complains of regurgitation, cough and heartburn that occurs every day after a meal, when bending forward or lying down. These problems have been observed for 4 years. Objective status and laboratory values are normal. FEGDS revealed endoesophagitis. What is the leading factor in the development of this disease?

- A. Failure of the inferior esophageal sphincter
- B. Hypersecretion of hydrochloric acid
- C. Duodeno-gastric reflux
- D. Hypergastrinemia
- E. Helicobacter pylori infection

A 33-year-old female complains of escalating spastic pain in the abdomen after the psycho-emotional stress. The patient has intermittent bowel movements, that is 2-3 bowel movements after waking up alternate with constipation lasting for 1-2 days. Objectively: body weight is unchanged,

there is moderate pain on palpation of the sigmoid colon. Hb- 130 g/l, WBC-5,2· 10<sup>9</sup>/l, ESR- 9mm/h. Proctosigmoidoscopy causes pain due to spastic bowel condition, intestinal mucosa is not changed. In the lumen there is a lot of mucus. What is the most likely diagnosis?

- A. Irritable bowel syndrome
- B. Crohn's disease
- C. Non-specific ulcerative colitis
- D. Acute bowel ischemia
- E. Malabsorption syndrome

A 44-year-old male patient complains of severe non-localized abdominal pain, pain in the right shoulder girdle, repeated vomiting, red urine. The onset of the disease is associated with alcohol consumption. The face is hyperemic. AP- 70/40 mm Hg. Abdominal radiography reveals no pathological shadows. Hemodiastase is 54 mg/h/l. Prothrombin is 46%. What is the provisional diagnosis?

- A. Acute pancreatitis
- B. Acute myocardial infarction
- C. Perforated gastric ulcer
- D. Thrombosis of mesenteric vessels
- E. Aneurysm of the abdominal aorta

A 40-year-old male patient has had heaviness in the epigastric region for the last 6 months. He has not undergone any examinations. The night before, he abused vodka. In the morning there was vomiting, and 30 minutes after physical activity the patient experienced dizziness and profuse hematemesis. What pathology should be suspected in the first place?

- A. Mallory-Weiss's syndrome
- B. Menetrier's disease
- C. Gastric ulcer
- D. Perforated ulcer
- E. Zollinger-Ellison syndrome

A 46-year-old male patient complains of periodic epigastric pain that occurs at night. Objectively: HR- 70/min, AP- 125/75 mm Hg, tenderness in the epigastric region is present. EGD confirms duodenal ulcer of 0,6 cm in diameter. Test for H. Pylori is positive. Which of the given antisecretory drugs will be a compulsory element of the treatment regimen?

- A. Omeprazole
- B. Famotidine
- C. Pirenzepine
- D. Atropine
- E. Maalox

A 49-year-old male patient complains of retrosternal pain, heartburn, weight loss of 8kg over the last year, constipation, weakness. The patient has been a smoker for 20 years, and has a 10-year history of Gastroesophageal reflux disease. The patient is asthenic, has dry skin. EGD revealed an ulcer in the lower third of the esophagus and esophageal stricture accompanied by edema, hyperemia and multiple erosions of the mucosa. What study is required for more accurate diagnosis?

- A. Biopsy of the esophageal mucosa
- B. X-ray examination of the esophagus
- C. Respiratory test for Helicobacter pylori
- D. pH-metry of the esophagus and the stomach
- E. Fecal occult blood test

At the patient S., 68 years old, during examination atrophy of papillae of language, yellowness of white of the eyes, splenomegaly, and symmetrical paresthesia were found out, at FGDS - atrophical gastritis, at Ph-metry – achlorhydria. In blood test: anemia, makrocytosis. What researches can confirm the diagnosis:

- A. \*Sternal puncture
- B. US investigation of abdominal cavity
- C. Consultation of neurologist
- D. Determination of iron of blood serum
- E. Spleen puncture

At the patient K., 18 years old, abundant bleeding began after extraction of tooth. In the anamnesis: haemophilia A. What first aid the patient needs:

- A. Ascorutin
- B. Aminocapron acid
- C. Calcii chloridi
- D. Vikasol
- E. \*Cryoprecipitate

At the sick M., 42 years old, who was taking mercazolile for a long time, concerning thyreotoxicosis, agranulotcytosis developed. What changes are possible to expect in leukoformula:

- A. Leukocytosis with lymphocytosis
- B. Leukocytosis with neutrophilia
- C. Leukocytosis with lymphopenia
- D. Leukopenia with neutrophilia
- E. \*Leukopenia with neutropenia

The patient L., 23 years old, complains on increase of temperature of body to 38C, appearance of hypodermic hemorrhages. Doctor diagnosed aplastic anemia. What symptom from the below will be observed at the sick:

- A. Splenomegaly
- B. Lymphadenia
- C. \*Leukopenia
- D. Hepatomegaly
- E. Hyperthrombotcytosis

The sick Z., 68 years old, complains on pain in bones, subfebrile temperature of body, weight loss. At inspection moderate normochromic anemia is determined, blood sedimentation-55 mm/h, proteinuria-0,99 g/l. What of research methods is less informing for clarification of diagnosis:

- A. Definition of general protein
- B. Definition of albuminous fractions
- C. Roentgenography of bones
- D. \*Definition of level of iron of blood serum
- E. Sternal puncture 4

At the patient S., 68 years old, during examination yellowness of white of the eyes, hepatosplenomegaly, symmetrical paresthesia, at additional research - atrophical gastritis with achlorhydria were discovered. What sign contradicts the clinic of the described condition:

- A. Macrocytosis
- B. Gunther's glossitis

- C. Thrombocytopenia
- D. \*Microcytosis
- E. Hypersegmentation of nucleus of neutrophils

Which from diseases transferred below such hematological indexes are characteristic for: expressed anemia, leukopenia, neutropenia, presence of 15% of plasma cells in bone marrow:

- A. Acute leukemia
- B. Chronic myeloleukemia
- C. \*Multiple myeloma
- D. Chronic lympholeukemia
- E. Lymphogranulomatosis

At the 23 years old man, who suffers on acute myeloblastic leukemia, massive hypodermic hemorrhages, nose bleeding appeared. There are expressed anemia, thrombotcytopenia, and 30% of blasts in blood test. What first aid the patient needs:

- A. Extending of polychemotherapy
- B. Transfusion of packet red cells
- C. \*Transfusion of thromboconcentrate
- D. Introduction of iron preparations
- E. Introduction of vikalol

The patient S., 68 years old, immediately hospitalized concerning hard anemia (Hb-50 g/l, macrocytosis) with complaints on dyspnea in rest, disturbance of step. At examination: yellowness of white of the eyes, tachycardia, hepatosplenomegaly. What help the patient needs:

- A. Preparations of iron intravenous
- B. \*Vitamin B12, packet red cells
- C. Prednizolon
- D. Anabolic steroids
- E. Packet red cells

The patient T., 60 years old, complains on dyspnea. During many years he is suffering on chronic obstructive pulmonary disease. Hepatosplenomegaly. Blood test: E-6,8\*10<sup>12</sup>/l, Hb-190 g/l, L-12\*10<sup>9</sup>/l, T-520\*10<sup>9</sup>/l, blood sedimentation-2 mm/h. Define the reliable diagnosis:

- A. Chronic obstructive pulmonary disease. Symptomatic erythrocytosis
- B. Pikvik`s syndrome. Symptomatic erythrocytosis
- C. Hypertonic illness. Symptomatic erythrocytosis
- D. \*Erythremia. Chronic obstructive pulmonary disease 5
- E. Chronic myeloleukemia. Chronic obstructive pulmonary disease

At examination of the 70 years old patient with fever and dyspnea, pallor of skin, moist rales in the lower departments of lungs, tachycardia, diastolic noise in the V point, AP-140/40, increase of spleen are found out. In blood: E-2,7\*10<sup>12</sup>/l, Hb-75 g/l, L-4,2\*10<sup>9</sup>/l, blood sedimentation-45 mm/h; in urine - moderate proteinuria, microhematuria. Define the reliable diagnosis:

- A. Chronic myeloleukemia
- B. \*Infectious endocarditis
- C. Rheumatic heart disease
- D. Pneumonia
- E. Acute myocarditis

The sick K., 58 years old, marks increased lymphatic knots of neck and subarm-pits. At examination: size of lymphatic knots 3x4 sm, painless, soft, mobile, skin above them is not changed. General analysis of blood: E- $3,2 \cdot 10^{12}/l$ , Hb-102 g/l, CI-1,0; L- $235 \cdot 10^9/l$ , e-2%, r/n-4%, s-12%, l-76%, m-6%, Gumprechts' bodies. Define the reliable diagnosis:

- A. \*Chronic lympholeukemia
- B. Reactive lymphadenitis
- C. Lymphogranulomatosis
- D. Malignant lymphoma
- E. Metastasis of cancer in lymphatic knots

The 63 years old participant of liquidation of failure on CHAES, complains on causeless weakness, feeling of holding apart in the left subcostum. The patient feels itself sick for a year. Objectively: skin is pale, liver + 3 sm, spleen +10 sm. In blood: E- $3,1 \cdot 10^{12}/l$ , Hb-100 g/l, L- $200 \cdot 10^9/l$ , e-6%, b-3%, blast-2%, promiel-10%, miel-18%, r/n -27%, s-10%, l-12%, m-2%, blood sedimentation-40 mm/h. What diagnosis is the most credible:

- A. Hemolytic anemia
- B. Cirrhosis of liver
- C. Acute leukemia
- D. \*Chronic myeloleukemia
- E. Chronic lympholeukemia

The patient L., 30 years old, complains on general weakness, fragility of nails, hair fall, considerable and prolonged menstruations. Objectively: pallor of skin, heart rate-90, AP-100/70. Blood test: E- $3,5 \cdot 10^{12}/l$ , Hb-90 g/l, CI-0,7; blood sedimentation-20 mm/h. Define the previous diagnosis:

- A. \*Iron deficiency anemia
- B. B12 deficiency anemia
- C. Aplastic anemia
- D. Acute leukemia
- E. Follic deficiency anemia 6

The sick F., 50 years old, complains on itch of skin after aquatic procedures. Objectively: skin of red color, liver + 2 sm, spleen + 4 sm. Blood test: E- $6,4 \cdot 10^{12}/l$ , Hb-185 g/l, L- $10,0 \cdot 10^9/l$ , e-5%, r/n-8%, s/n-56%, l-26%, m-5%, T- $525 \cdot 10^9/l$ , blood sedimentation-1mm/h, hematocrit-72%. What research must be conducted for clarification of diagnosis:

- A. Definition of B12 in blood
- B. \*Sternal puncture
- C. Definition of alkaline phosphatase of blood
- D. Iron of blood serum
- E. US investigation of abdominal cavity

The sick T., 36 years old, appealed to internist with complaints on pain in throat, increase of temperature of body to 39C. Objectively: skin is pale, single bruises on thighs, necrotic changes on tonsils, spleen +3 sm. Blood test: E- $1,9 \cdot 10^{12}/l$ , Hb-57 g/l, L- $20,0 \cdot 10^9/l$ , blast -26%, s-25%, l-42%, m-7%, T- $32,0 \cdot 10^9/l$ , blood sedimentation-60 mm/h. What research needs be conducted for clarification of diagnosis:

- A. \*Sternal puncture
- B. Smear from fauces
- C. US investigation of abdominal cavity
- D. Spleen puncture
- E. Computed tomography of abdominal cavity

The sick L., 68 years old, complains on increased lymphatic knots, perspiration. Objectively: skin and mucous membranes are pale, increased inguinal and subaxillary lymphatic knots, palpated by diameter of 2-3 cm, soft, unpainful, mobile. Sizes of liver by Curlov are 18\*14\*13 cm. Blood test: E-3,5\*10<sup>12</sup>/l, Hb-100 g/l, CI-0,8, L-380\*10<sup>9</sup>/l, e-3%, l-95%, m-2%, T-190\*10<sup>9</sup>/l. Define the previous diagnosis:

- A. \*Chronic lympholeukemia
- B. Acute leukemia
- C. Chronic myeloleukemia
- D. Leukemoid reaction of lymphoid type
- E. Cirrhosis of liver

The sick A., 56 years old, appealed to doctor with complaints on perspiration, weight loss, heavy feeling in the left half of stomach. Skin and mucous membranes are pale. Large spleen is palpated and liver is moderately increased. Blood test: E-3\*10<sup>12</sup>/l, Hb-90 g/l, L-240\*10<sup>9</sup>/l, eoz-9%, baz-6%, myeloblast-4%, promyel-3%, myel-23%, metamyel-16%, r/n-15%, s/n-12%, l-7%, m-5%, blood sedimentation-40 mm/h. Define the previous diagnosis:

- A. Chronic lympholeukemia
- B. Acute leukemia
- C. \*Chronic myeloleukemia
- D. Leukemoid reaction of myeloid type
- E. Cirrhosis of liver

The patient O., 50 years old, complains on general weakness, numbness of lower extremities. Objectively: skin is pale, liver + 2 cm. Blood test: E-2,3\*10<sup>12</sup>/l, Hb-95 g/l, CI-1,3, L-2,4\*10<sup>9</sup>/l, r/n-2%, s/n-53%, l-40%, m-5%, blood sedimentation-34 mm/h, macrocytosis, hypersegmentation of neutrophils. What research needs to be conducted for definition of diagnosis:

- A. US investigation of abdominal cavity
- B. \*Sternal puncture
- C. Definition of B12 in blood
- D. Iron of blood serum
- E. Liver puncture

The patient G., 58 years old, complains on headache, dizziness. Objectively: skin is plethoric, heart rate-82, AP-180/90, liver and spleen are moderately increased. Blood test: E-8,0\*10<sup>12</sup>/l, Hb-220 g/l, CI-1,0; L-11,5\*10<sup>9</sup>/l, T-560\*10<sup>9</sup>/l.

What research must be conducted for diagnostics of the disease:

- A. Echocardiography
- B. \*Sternal puncture
- C. US investigation of abdominal cavity
- D. Iron of blood serum
- E. Determination of hematocrit

The patient, 19 years old, complains on fever, pain in throat, swollen neck lymphatic knots. At examination: spleen and liver are increased. In general analysis of blood 32% of mononuclears are found out. What disease you think about:

- A. \*Lymphatic angina
- B. Hepatitis
- C. Angina
- D. Acute leukemia
- E. Sepsis



The patient T., 45 years old, complains on general weakness, dyspnea at insignificant physical load, pain in the right subcostum. During 10 years the patient was misusing of alcohol. Objectively: reduced feed, skin is pale with icteric tint, systolic noise above all auscultational points, liver + 6 sm, spleen +2 sm. In blood: E- $1,8 \cdot 10^{12}/l$ , Hb-75 g/l, CI-1,3; L- $3,5 \cdot 10^9/l$ , e-3%, r/n-4%, s/n-65%, l-21%, m-7%; T- $110 \cdot 10^9/l$ , blood sedimentation-50 mm/h. What diagnosis is most credible:

- A. B12 deficiency anemia
- B. \*Follic deficiency anemia
- C. Hypoplastic anemia
- D. Cirrhosis of liver
- E. Autoimmune thrombocytopenia

The 35 years old woman, who during two years treats oneself at internist concerning NCD and at gynaecologist concerning menorrhagia, complains on muscular weakness, decline of memory, subfebrile temperature. General analysis of blood: E- $3,5 \cdot 10^{12}/l$ , Hb-100 g/l, CI-0,7, anisocytosis, L- $3,8 \cdot 10^9/l$ , e-2%, r/n-4%, s/n-60%, l-26%, m-8%, blood sedimentation-12 mm/h, iron of blood serum-7,8 mkm/l. What treatment needs to be appointed:

- A. \*Preparations of iron per os
- B. Follic acid
- C. Preparations of iron intravenous
- D. Vitamins of group B
- E. Transfusion of packet red cells

The patient G., 58 years old, complains on headache, dizziness. Objectively: skin is pletoric, tones of heart are rhythmic, heart rate-82, accent of the second tone above aorta, AP-180/90, spleen is moderately increased. Blood test: E- $8,2 \cdot 10^{12}/l$ , Hb-210 g/l, CI-1,2, L- $10,5 \cdot 10^9/l$ , T- $560 \cdot 10^9/l$ .

What diagnosis is most credible:

- A. \*Erythremia
- B. Chronic myeloleukemia
- C. Cerebral insult
- D. Tumor of brain
- E. Cirrhosis of liver

About what pathology it is possible to think at presence at the sick of ecchymoses, prolonged menstruations, thrombocytopenia in general analysis of blood and raised percent of megakariocytes in bone marrow aspirates:

- A. Aplastic anemia
- B. Acute leukemia
- C. Systemic lupus erythematosus
- D. \*Idiopathic thrombocytopenic purpura
- E. Chronic hepatitis

At the formula of blood: E- $1,3 \cdot 10^{12}/l$ , Hb-58 g/l, CI-1,3, megaloblast-2 on 100, reticulotcyt-0,2%, macrocytosis, L- $2,8 \cdot 10^9/l$ , e-3%, r/n-5%, s/n-49%, l-37%, m-6%, T- $100,0 \cdot 10^9/l$ , blood sedimentation-30 mm/h, formulate the previous diagnosis:

- A. Iron deficiency anemia
- B. \*B12 deficiency anemia
- C. Aplastic anemia
- D. Acute leukemia
- E. Agranulocytosis

At the formula of blood: E- $3,5 \cdot 10^{12}/l$ , Hb-110 g/l, L- $330 \cdot 10^9/l$ , baz-5%, eozin-9%, promyel-2%, myel-22%, metamyel-21%, r/n-15%, s/n-12%, l-8%, m-6%; thromb- $200,0 \cdot 10^9/l$ , blood sedimentation-45 mm/h. Formulate the previous diagnosis:

- A. Acute leukemia
- B. Chronic lympholeukemia
- C. \*Chronic myeloleukemia
- D. Erythremia
- E. Multiple myeloma 9

The 23 years old patient on the background of angina noticed increase of lymphatic nodes. At examination phenomena of acute angina, magnification of liver are marked. At research of blood: E- $4,1 \cdot 10^{12}/l$ , Hb-130 g/l, thromb- $230,0 \cdot 10^9/l$ , L- $6,5 \cdot 10^9/l$ , in leukocyte formula there are 45% of lymphomonocytic cells, blood sedimentation-35 mm/h. What diagnosis is most credible:

- A. \*Lymphatic angina
- B. Chronic lympholeukemia
- C. Infectious lymphadenitis
- D. Acute hepatitis
- E. Acute monoblastic leukemia

The 23 years old patient on the background of angina noticed increase of lymphatic nodes. At examination phenomena of acute angina, magnification of liver are marked. At research of blood: E- $4,1 \cdot 10^{12}/l$ , Hb-130 g/l, T- $230,0 \cdot 10^9/l$ , L- $6,5 \cdot 10^9/l$ , in leukocyte formula there are 45% of lymphomonocytic cells, blood sedimentation-35 mm/h. What additional research must be conducted for confirmation of diagnosis:

- A. Sternal puncture
- B. Biopsy of lymphatic knot
- C. US Investigation of liver and spleen
- D. \*Smear from fauces
- E. Roentgenography of lungs

At the formula of blood: E- $2,5 \cdot 10^{12}/l$ , Hb-68 g/l, CI-1,5, megaloblast-5 on 100, reticulocyt-0,2%, L- $2,8 \cdot 10^9/l$ , e-3%, r/n-4%, s/n-45%, l-33%, m-5%, thromb- $105 \cdot 10^9/l$ , blood sedimentation-30 mm/h. Appoint additional research, which must be conducted for confirmation of diagnosis:

- A. \*Sternal puncture
- B. US Investigation of liver and spleen
- C. Roentgenography of lungs
- D. Definition of maintenance of B12 in blood
- E. Definition of iron of blood serum

At the indicated formula of blood: E- $2,8 \cdot 10^{12}/l$ , Hb-80 g/l, CI-0,8, reticulocyt-20%, L- $7,5 \cdot 10^9/l$ , e-2%, r/n-4%, s/n-54%, l-37%, m-3%, T- $200 \cdot 10^9/l$ , blood sedimentation-35 mm/h, microspherocytosis. Appoint additional research, which is necessary for confirmation of diagnosis:

- A. Sternal puncture
- B. Definition of maintenance of B12 in blood
- C. Definition of maintenance of iron of blood serum
- D. US investigation of liver and spleen
- E. \*Definition of osmotic resistance of erythrocytes

At the indicated formula of blood: E- $2,8 \cdot 10^{12}/l$ , Hb-80 g/l, microspherocytosis, CI-0,8, reticul-20%, L- $7,5 \cdot 10^9/l$ , e-2%, r/n-4%, s/n-54%, l-37%, m-3%, T- $200 \cdot 10^9/l$ , blood sedimentation-35 mm/h.

Define the previous diagnosis:

- A. B12 deficiency anemia
- B. Folic deficiency anemia
- C. \*Inborn hemolytic anemia
- D. Iron deficiency anemia
- E. Acute leukemia

The sick K., 72 years old, complains on aversion to meat, weight loss on 12 kg during 6 months. At examination: skin is pale, above the left collar-bone increased, not mobile, dense lymphatic knot is palpated. Liver is + 4 sm, dense, painful. General analysis of blood: E- $2,5 \cdot 10^{12}/l$ , Hb-78 g/l, L- $11,8 \cdot 10^9/l$ , T- $460 \cdot 10^9/l$ , blood sedimentation-55 mm/h. About what disease it is possible to think:

- A. Acute leukemia.
- B. B12 deficiency anemia
- C. Folic deficiency anemia
- D. \*Cancer of stomach with metastasis
- E. Multiple myeloma

The sick K., 72 years old, complains on aversion to meat, weight loss on 12 kg during 6 months. At examination: skin is pale, icteric, above the left collar-bone increased, not mobile, dense lymphatic knot is palpated. Liver is + 4 sm, dense, painful. General analysis of blood: E- $2,5 \cdot 10^{12}/l$ , Hb-78 g/l, L- $12,8 \cdot 10^9/l$ , T- $460 \cdot 10^9/l$ , blood sedimentation-55 mm/h. What research needs to be conducted for confirmation of diagnosis:

- A. Sternal puncture.
- B. US investigation of liver
- C. Biopsy of lymphatic knot
- D. \*FGDS
- E. Ph-metry

The patient G., 57 years old, complains on diarrhea, increase of temperature of body to 37,5C, obdormition and tingling in lower extremities. The resection of stomach concerning ulcer was done 4 years ago. At examination: skin is pale, icteric, liver +3 sm, spleen +2 sm. General analysis of blood: E- $2,3 \cdot 10^{12}/l$ , Hb-80 g/l, CI-1,2, L- $2,3 \cdot 10^9/l$ , formula is not changed, T- $140 \cdot 10^9/l$ , blood sedimentation-45 mm/h, macrocytosis. About what disease it is possible to think:

- A. Iron deficiency anemia
- B. Cancer of stomach
- C. \*B12 deficiency anemia
- D. Inborn hemolytic anemia
- E. Folic deficiency anemia

At the young woman after viral infection acute belly – ache, diarrhea with the admixtures of blood, pain in knee-joints, increase of temperature of body appeared. Objectively: skin is pale, micropoint eruption on the skin of shins, at palpation thick intestine is painful. In blood: leukocytosis, increased blood sedimentation; in urine: low proteinuria, microhematuria. What additional research must be conducted:

- A. Proteinogram
- B. C-reactive protein
- C. LE-cells, antibodies to native DNK
- D. \*Villebrandts` factor, circulating immune complexes

E. US investigation of abdominal cavity

The sick F., 62 years old, appealed to doctor with complaints on general weakness, headache, itch of skin after contact with water. Objectively: skin of face of redder – bluish color, AP-180/90, spleen + 4 sm. What diagnosis is most credible:

- A. Allergic dermatitis
- B. Dermatomyositis
- C. \*Erythremia
- D. Hypertonic illness
- E. Cirrhosis of liver

The patient G., 57 years old, complains on periodic diarrhea, increase of temperature of body to 37,5C, obdormition and tingling in lower extremities. The resection of stomach concerning ulcer was done 4 years ago At examination: skin is pale, icteric, liver + 3 sm, spleen + 2 sm. General analysis of blood: E-2,3\*10<sup>12</sup>/l, Hb-80 g/l, CI-1,3, L-2,3\*10<sup>9</sup>/l, formula is not changed, T-140\*10<sup>9</sup>/l, blood sedimentation-40 mm/h, macrocytosis. What additional research must be conducted for clarification of diagnosis:

- A. US investigation of liver and spleen
- B. \*Sternal puncture
- C. FGDS
- D. Research of bilirubin of blood
- E. Roentgenoscopy of stomach

The 19 years old youth complains on acute pain and slight swelling in right knee-joint, limitation of motions in it, which arose up after insignificant trauma. In anamnesis there is hemophilia. At review hemarthrosis of knee-joint is determined. It is necessary to use in treatment:

- A. \*Cryoprecipitate
- B. Donor blood (at direct transfusion)
- C. Decinon
- D. Donor blood (ampuled)
- E. Thrombocytic mass

The 44 years old man is hospitalized to the infectious separation with the diagnosis of follicular angina. At examination: temperature of body 38,6C, skin is pale, pulse – 112, AP-90/60. In blood test: E-2,5\*10<sup>12</sup>/l, HB-90 g/l, CI-0,8; L-38,0\*10<sup>9</sup>/l, blast-68%, r/n-2%, s/n-5%, l-23%, m-2%, blood sedimentation-46 mm/h. What primary research the patient needs:

- A. US investigation of abdominal cavity
- B. \*Sternal puncture.
- C. Smear from fauces
- D. Seeding of blood on sterility
- E. Determination of ferritin of blood 12

The 28 year old woman appealed to doctor with complaints on appearance of ecchymoses after insignificant traumas or spontaneously. At examination: skin is pied (fresh and old hemorrhage) on the front surface of trunk and extremities. In blood test: T-20\*10<sup>9</sup>/l, in bone marrow number of megakaryocytes is increased. What is the most reliable disease:

- A. Hemorrhagic vasculitis
- B. Randyu-Osler's` disease
- C. Hemophilia
- D. \*Idiopathic thrombocytopenic purpura

#### E. Systemic lupus erythematosus

At the 55 years old man, patient on B12 deficiency anemia, symptoms of funicular myelosis gradually appeared. In blood: anemia, leukopenia, thrombocytopenia, increase of colour index, blood sedimentation-40 mm/h; hyperbilirubinemia due to indirect. What is the most credible reason of funicular myelosis:

- A. Increased level of bilirubin
- B. \*Accumulating of propion and metilmalon acids
- C. Long – lasting hypoxia of nervous system
- D. Activating of infection as a result of leukopenia
- E. Deficiency of feed

The 44 years old man is hospitalized to the infectious separation with the diagnosis of follicular angina. At examination: temperature of body of 38,6C, skin is pale, pulse 112, AP-100/60. In blood test: E-2,5\*10<sup>12</sup>/l, Hb-90 g/l, CI-0,8, L-38\*10<sup>9</sup>/l, blast-68%, r/n-2%, s/n-14%, l-14%, m-2%, blood sedimentation-46 mm/h. What disease it follows to suspect at the patient:

- A. Chronic lympholeukemia
- B. Chronic myeloleukemia
- C. \*Acute leukemia
- D. Lymphatic angina
- E. Leukemoid reaction

At the young woman after viral infection acute belly – ache, diarrhea with the admixtures of blood, pain in knee-joints, increase of temperature of body appeared. Objectively: skin is pale, micropoint eruption on the skin of shins, at palpation thick intestine is painful. In blood: leukocytosis, increased blood sedimentation; in urine: low proteinuria, microhematuria. What diagnosis is the most reliable:

- A. Crohn`s disease
- B. \*Hemorrhagic vasculitis
- C. Nodular polyarteriitis
- D. Unspecific ulcerative colitis
- E. Systemic lupus erythematosus

The patient T., 45 years old, complains on general weakness, dyspnea at insignificant physical load, pain in the right subcostum. During 10 years the patient was 13 misusing of alcohol. Objectively: reduced feed, skin is pale with icteric tint, systolic noise above all auscultational points, liver + 6 sm, spleen +2 sm. In blood: E-1,8\*10<sup>12</sup>/l, Hb-75 g/l, CI-1,3; L-3,5\*10<sup>9</sup>/l, e-3%, r/n-4%, s-65%, l-21%, m-7%; T-110\*10<sup>9</sup>/l, blood sedimentation-50 mm/h. What laboratory research must be conducted for clarification of diagnosis:

- A. Sternal puncture
- B. \*Definition of concentration of folates in red corpuscles of blood
- C. Definition of ferritin of blood
- D. Definition of B12 in blood
- E. Definition of iron of blood serum

At the patient, 57 years old, after viral infection subfebrile temperature is saved for a long time, heavy feeling in the left subcostum is marked. At examination: skin is pale, spleen +6 sm, liver +3 sm. In blood test: E-2,9\*10<sup>12</sup>/l, Hb-90 g/l, CI-1,0; L-540,0\*10<sup>9</sup>/l, eozin-4%, baz-3%, blast-34%, myel-2%, metamyel-3%, r/n-5%, s/n-27%, l-18%, m-4%, T-260\*10<sup>9</sup>/l, blood sedimentation-37 mm/h. What disease it follows to suspect at the patient:

- A. Acute myeloblastic leukemia

- B. \*Chronic myeloleukemia, blastic crisis
- C. Chronic lympholeukemia.
- D. Lymphogranulomatosis
- E. Leukemoid reaction of myeloid type

The patient F., 29 years old, who during two years treated oneself at gynaecologist concerning menorrhagia, complains on increased fatigability, palpitation at physical load, unretaining of urine. Has a desire to eat chalk. In blood test: E- $3,5 \cdot 10^{12}/l$ , Hb-95 g/l, L- $3,8 \cdot 10^9/l$ , e-3%, r/n-5%, s/n-56%, l-26%, m-6%, blood sedimentation-24 mm/h, hypochromia of red corpuscles, anisocytosis, poikilocytosis, iron of blood serum-5,5 mkm/l. What treatment must be appointed:

- A. Folic acid
- B. Cyancobalamine
- C. \*Preparations of iron per os
- D. Ascorbic acid
- E. Transfusion of packet red cells

At the patient, who suffers on chronic lympholeukemia, general weakness increased, yellowness of white of the eyes and skin appeared. At examination: Hb-65 g/l, reticul-5%, general bilirubin-80,3 mkmol/l, indirect-65,3 mkmol/l. Urobilin is increased in analysis of urine. The direct Coombs` test is positive. What pathogenetic mechanism is lying in the root of anemia:

- A. Myelofibrosis
- B. Oppressing of erythroid link of hemopoiesis
- C. \*Autoimmune hemolysis
- D. Deficiency of folic acid
- E. Disturbance of porfirin metabolism 14

The pregnant, 18 years old (20 weeks), complains on weakness, dyspnea at physical load. At women`s dispensary she was not observed before. Objectively: skin is pale with lemon tint; face is puffy, language - bright red, liver + 3 sm. In blood test: E- $3,0 \cdot 10^{12}/l$ , Hb-88 g/l, CI-1,3; L- $3,8 \cdot 10^9/l$ , T- $130,0 \cdot 10^9/l$ ; e-3%; r/n-4%; s/n-52%; l-36%; m-5%; macrocytosis, blood sedimentation-28 mm/h. What diagnosis is the most reliable:

- A. Iron deficiency anemia
- B. B12 deficiency anemia
- C. \*Folic deficiency anemia
- D. Acute leukemia
- E. Hepatitis

The patient D., 50 years old, complains on dizziness, blinking of "spots" before eyes. At examination: subicteric skin and mucosues, liver +4 sm, dense, painful, spleen +8 sm, dense. In blood test: E- $2,2 \cdot 10^{12}/l$ , Hb-80 g/l, reticul-30%, L- $6,0 \cdot 10^9/l$ , e-3%, r/n-6%, s/n-62%, l-20%, m-8%; blood sedimentation-30 mm/h; osmotic resistance of red corpuscles 0,52-0,56%; bilirubin of blood is moderately increased due to indirect, reaction on urobilin is Acutely positive, the Coombs` test is positive. What diagnosis is the most credible:

- A. Minkovskiy – Shoffars` disease
- B. Agranulocytosis
- C. Night hemoglobinuria
- D. \*Autoimmune hemolytic anemia
- E. Gilber`s disease

The patient I., 47 years old, is hospitalized in clinic with complaints on expressed weakness, increase of temperature of body to 39,2°C, pain in throat. At examination: in blood test there are anemia, thrombocytopenia, leukocytosis with "leukemic failure", blast-34%, blood sedimentation-40 mm/h. What research must be conducted for clarification of diagnosis:

- A. Coagulogram
- B. Sciagraphy of bones of skull
- C. Unfolded blood test
- D. Seeding from tonsils
- E. \*Sternal puncture

The patient I., 18 years old, was hospitalized with complaints on nose-bleeding, hemorrhagic rash as petechias on the skin of lower extremities. Vaccination against flu was done two weeks ago. In blood test: E-4,0\*10<sup>12</sup>/l, L-6,7\*10<sup>9</sup>/l, T-30,0\*10<sup>9</sup>/l, e-2%, r/n-4%, s/n-54%, l-32%, m-8%, blood sedimentation-2 mm/h. Your previous diagnosis:

- A. Hemorrhagic vasculitis
- B. Acute leukemia
- C. \*Autoimmune thrombocytopenia
- D. Randyu-Osler's disease
- E. Systemic lupus erythematosus 15

The patient, 68 years old, complains on general weakness, pain in ribs, lumbar area. At examination: moderate normochromic anemia, general albumen-107 g/l, diurnal proteinuria-5,0 g/day. On the sciagrams of bones of skull a lot of shallow rounded hearths of destruction were discovered by diameter from 0,8 to 2,0 sm. What diagnosis can be suspected at this patient:

- A. \*Multiple myeloma
- B. Osteolytic metastases in bones
- C. Amyloidosis of kidneys with nephrotic syndrome
- D. Hyperparathyroidic osteodystrophy
- E. Chronic glomerulonephritis with nephrotic syndrome

The patient S., 64 years old, at examination in policlinic increased lymphatic knots of neck, arm-pits, groin and liver (+3 sm) were found out. In blood test: E-3,1\*10<sup>12</sup>/l, Hb-98 g/l, L-500,0\*10<sup>9</sup>/l, e-2%, r/n-1%, s/n-13%, l-80%, m-4%, blood sedimentation-40 mm/h. What reliable diagnosis the patient has:

- A. Chronic myeloleukemia
- B. Cancer of liver
- C. \*Chronic lympholeukemia
- D. Tubercular lymphadenitis
- E. Lymphogranulomatsis

The patient G., 37 years old, during three months marks frequent nose-bleedings and menorrhagia, appearance of bruises on skin. Three days ago after considerable nose-bleeding, dizziness, palpitation appeared. At examination: on the skin of front surface of trunk and feet - plural petechias, single ecchymoses. In blood test: E-3,0\*10<sup>12</sup>/l, Hb-100 g/l, CI-0,7; L-5,3\*10<sup>9</sup>/l, T-40,0\*10<sup>9</sup>/l, blood sedimentation-19 mm/h. What diagnosis can be suspected at this patient:

- A. Aplastic anemia
- B. Hemophilia
- C. Hemorrhagic vasculitis
- D. Iron deficiency anemia
- E. \*Autoimmune thrombocytopenic purpura

The patient A., 42 years old, complains on dizziness, appearance of bruises on skin, nose-bleedings, and weight loss. He is ill for 3 months. At examination: reduced feed, skin is pale with presence on the front surface of hands, feet and trunk of different remoteness of plural bruises by diameter from 0,2 to 3,0 sm.

What type of hemorrhage takes place at the patient:

- A. Angiomatosal
- B. Hematomal
- C. Mixed
- D. Vasculit-purpural
- E. \*Petechia-macular

At the 26 years old patient yellowness of skin, dizziness, palpitation, spleen +2,5 sm determined. Urine is dark, feces of umber color. In blood test there are normochromic anemia, reticul-4%. Reaction on urobilin is Acutely positive. What research must be conducted for establishment of diagnosis:

- A. Definition of vitamin B12
- B. Definition of iron of blood serum
- C. \*Definition of osmotic resistance of erythrocytes
- D. Electrophoresis of proteins of blood serum
- E. Sternal puncture

The patient A., 20 years old, delivered to inpatient facility concerning pit bleeding after extraction of tooth. In blood test: E-2,80\*10<sup>12</sup>/l, Hb-80 g/l, L-4,0\*10<sup>9</sup>/l, e-2%, r/n-3%, s/n-62%, l-28%, m-5%; T-24,0\*10<sup>9</sup>/l: blood sedimentation-25 mm/h. What disease can be assumed at the patient:

- A. \*Autoimmune thrombocytopenic purpura.
- B. Acute leukemia
- C. Hemophilia B
- D. Agranulocytosis
- E. Aplastic anemia

The patient S, 21 years old, after radial irradiation complains on palpitation, dyspnea, frequent nose-bleedings, bruises on body. The patient marks frequent acute respiratory diseases. In blood test: E-2,0\*10<sup>12</sup>/l, Hb-54 g/l, L-1,7\*10<sup>9</sup>/l, e-0%, r/n-0%, s/n-32%, l-62%, m-6%; T-30,0\*10<sup>9</sup>/l, blood sedimentation-52 mm/h. What treatment is most expedient in this case:

- A. Transfusion of thrombocytic mass
- B. \*Bone marrow transplantation
- C. Transfusion of packet red cells
- D. Transfusion of whole blood
- E. Introduction of antilymphocytic immunoglobulin

The patient E., 57 years old, complains on pain in lumbar area, bones of pelvis, increase of temperature to 37,3C, weight loss. At examination: anemia, blood sedimentation-70 mm/h, general protein-110 g/l, moderate proteinuria, sediment is without pathology. At roentgenologic inspection there are destructive changes in the bones of skull. What is the most credible diagnosis:

- A. \*Multiple myeloma
- B. Cancer of stomach
- C. Bechterew`s disease
- D. Metastases of tumor in bones
- E. Chronic glomerulonephritis



The patient M., 52 years old, appealed to doctor with complaints on itch of skin after washing, heavy feeling in head, dizziness. Objectively: face, neck, extremities are of crimson color, AP-180/100, spleen +4 sm. What is the most reliable diagnosis:

- A. Allergic dermatitis
- B. Hypertonic illness
- C. Chronic myeloleukemia
- D. \*Erythremia
- E. Cirrhosis of liver

The patient C., 60 years old, complains on dyspnea. During many years he is suffering on chronic obstructive pulmonary disease. Objectively: diffuse cyanosis, obesity is expressed, AP-180/110, dry rales, liver and spleen are increased. In blood test: E-6,6\*10<sup>12</sup>/l, Hb-190 g/l, L-15\*10<sup>9</sup>/l, T-529,0\*10<sup>9</sup>/l, blood sedimentation-2 mm/h. What research can help to set the diagnosis:

- A. Research of function of external breathing
- B. US investigation of abdominal cavity
- C. \*Sternal puncture
- D. Sciagraphy of thorax
- E. Puncture of liver

The pregnant, 18 years old (20 weeks), complains on weakness, dyspnea at physical load. At women`s dispensary she was not observed before. Objectively: skin is pale with lemon tint; face is puffy, language - bright red, liver +3 sm. In blood test: E-3,0\*10<sup>12</sup>/l, Hb-88 g/l, CI-1,4; L-3,8\*10<sup>9</sup>/l, T-130,0\*10<sup>9</sup>/l; e-3%; r/n-4%; s/n-52%; l-36%; m-5%; macrocytosis, blood sedimentation-38 mm/h. What research can help to set the diagnosis:

- A. Sternal puncture.
- B. \*Definition of concentration of folates in red corpuscles of blood
- C. Definition of ferritin of blood
- D. Definition of B12 in blood
- E. Definition of iron of blood serum

At the 65 years old man B12 deficiency anemia is diagnosed. In a week after the appointed treatment control inspection of peripheral blood is conducted. What index will be the early criterion for estimation of efficiency of the conducted therapy:

- A. \*Increase of amount of reticulocytes
- B. Increase of level of hemoglobin
- C. Decline of colour index of blood
- D. Normoblastic blood formation
- E. Increase of number of leukocytes

The patient, 20 years old, passed regular course of polychemotherapy by the scheme of "VAMP" concerning acute lymphoblastic leukemia. He has complaints on weakness, hair fall. In blood test: E-3,5\*10<sup>12</sup>/l, Hb-105 g/l, CI-0,9; L-4,2\*10<sup>9</sup>/l, T-120,0\*10<sup>9</sup>/l. What picture of bone marrow can testify about remission:

- A. \*Content of blastic cells to 5 %
- B. Content of blastic cells to 15 %
- C. Content of blastic cells to 10 %
- D. Content of blastic cells to 1 %
- E. Absence of blastic cells 18

The patient O., 62 years old, with increased feed, complains on headache, dizziness, pressing pain in the area of heart at moderate physical load. Objectively: face and hands with hyperemia, accent of the second tone above aorta, AP-170/104, liver +3 sm, spleen +2 sm. In blood test: E-6,2\*10<sup>12</sup>/l, Hb-186 g/l, L-11,2\*10<sup>9</sup>/l, blood sedimentation-1 mm/h. On ECG there is flatten wave T in V1-V4. What previous diagnosis can be put in this case:

- A. Cushing`s disease
- B. Hypertonic illness of II stage
- C. \*Erythremia
- D. Secondary erythrocytosis on background of obesity
- E. Cirrhosis of liver

At the 62 years old woman, who used butadion in connection with pain in joints, pain in throat, dry cough, and febrile temperature appeared. What changes it is possible to assume in general analysis of blood:

- A. Increase of number of mature granulocytes
- B. \*Decrease of number or absence of granulocytes
- C. Increase of number of ripening granulocytes
- D. Increase of number of lymphocytes
- E. Decrease of number or absence of lymphocytes

The youth of 18 years old is hospitalized with complaints on nose bleeding, which doesn`t succeed to be stopped, and hard pain in right elbow joint. He is ill from babyhood. Objectively: elbow joint is increased, perceptible hot, knee-joints are deformed, motions in them are limited, heart rate-90, AP-105/70. In blood test: E-3,2\*10<sup>12</sup>/l, Hb-110 g/l, CI-0,7, L-5,6\*10<sup>9</sup>/l, T-220,0\*10<sup>9</sup>/l, blood sedimentation-14 mm/h. What preparation it is necessary to use in treatment:

- A. Packet red cells
- B. Calcii chloridi
- C. \*Codginate
- D. Aminocapron acid
- E. Vikasol

At the 65 years old woman, who used butadion in connection with pain in joints, pain in throat, febrile temperature, chill appeared. Doctor suspected agranulocytosis. Agranulocytosis is:

- A. \*Decrease of maintenance of granulocytes in blood
- B. Increase of maintenance of agranulocytes in blood
- C. Decrease of number of neutrophilic granules with the simultaneous increase of their size
- D. Loss of granules in granulocytes
- E. Appearance of granules in agranulocytes

70. The 42 years old man complains on palpitation, nose-bleeding. Objectively: on the skin of extremities and trunk petechia-spotal hemorrhages, lymphatic knots are not palpated, pulse-116, liver is not increased, spleen is not palpated. In blood analysis there is pancytopenia. About what disease it is possible to think:

- A. Verlgoph`s disease
- B. Acute leukemia
- C. \*Aplastic anemia
- D. Hemorrhagic vasculitis
- E. Acute agranulocytosis

The 63 years old woman is hospitalized in the hematological separation with complaints on pressing retrosternal pain, dyspnea, paresthesia of feet. Objectively: temperature of body 37,6°C, yellowness

of white of the eyes, liver +2 sm. In blood test: E- $1,5 \times 10^{12}/l$ , Hb-70 g/l, CI-1,3, L- $2,6 \times 10^9/l$ , T- $132,0 \times 10^9/l$ , reticul-0,6%, bilirubin is moderately increased due to indirect. In myelogram: megaloblastic type of blood formation. What is the most credible diagnosis:

- A. Follic deficiency anemia
- B. \*B12 deficiency anemia
- C. Inborn hemolytic anemia
- D. Gained hemolytic anemia
- E. Iron deficiency anemia

The sick T., 24 years old, is hospitalized in the hematological separation with complaints on pain in lumbar area and right subcostum, acute weakness. In the anamnesis there was flu a week ago. Objectively: skin is pale-icteric, liver +2 sm, sensible. In blood: E- $2,0 \times 10^{12}/l$ , Hb-64 g/l, CI-0,9, L- $12,0 \times 10^9/l$ ; reticul-8%, bilirubin-38 mkml/l, mainly due to indirect, the direct Coombs` test is positive. What is the previous diagnosis:

- A. Hypoplastic anemia
- B. Markiafav – Mikelli`s disease
- C. Inborn hemolytic anemia
- D. Adison – Biermer disease
- E. \*Gained immune hemolytic anemia

The patient T., 34 years old, complains on chill, osalgia, nose-bleeding. Objectively: temperature of body- $38,6^{\circ}C$ , skin is pale, pulse-120, AP-100/70. In blood test: E- $2,7 \times 10^{12}/l$ , Hb-90 g/l, CI-0,9; L- $38,0 \times 10^9/l$ , blast-68%, r/n-2 %, s/n-8%, l-20%, m-2%, T- $25 \times 10^9/l$ , blood sedimentation-46 mm/h. What disease it follows to suspect at the patient:

- A. \*Acute leukemia.
- B. Leukemoid reaction
- C. Chronic lympholeukemia
- D. Chronic myeloleukemia
- E. Acute agranulocytosis

The 63 years old man appealed with complaints on acute general weakness, bad appetite, weight loss, heavy feeling in the left subcostum. In blood test: E- $3,4 \times 10^{12}/l$ , Hb-102 g/l, CI-0,9; L- $190 \times 10^9/l$ , bas-3%, eozin-8%, blast-1%, promyel-2%, myel-2%, metamyel-13%, youn-12%, r/n-16%, s/n-31%, l-9%, m-9%, T- $240,0 \times 10^9/l$ , blood sedimentation-30 mm/h. What is the previous diagnosis:

- A. Leukemoid reaction of myeloid type
- B. Acute leukemia
- C. \*Chronic myeloleukemia
- D. Erythromyelosis
- E. Chronic lympholeukemia

The 65 years old man complains on weakness, dyspnea, numbness of lower extremities. Objectively: skin is pale with subicteric tint, language is bright red, liver +3 sm. At FGDS there is atrophy of mucous membrane. In blood test: E- $2,4 \times 10^{12}/l$ , Hb-66 g/l, CI-1,4, L- $2,8 \times 10^9/l$ , e-2%, r/n-4%, s/n-50%, l-42%, m-5%, reticul-0,5%, T- $120,0 \times 10^9/l$ , macrocytosis, blood sedimentation-26 mm/h. What disease it follows to suspect at the patient:

- A. Hemolytic anemia
- B. Iron deficiency anemia
- C. Hypoplastic anemia
- D. \*B12 deficiency anemia

### E. Follic deficiency anemia

The 35 years old woman, is delivered in clinic after loss of consciousness on the street, complains on acute weakness, dizziness. Objectively: pallor of skin, there are hemorrhages on the skin of forearms and thighs, lymphatic knots are not increased, pulse-100, AP-90/60, liver and spleen are not increased. In blood test: E- $1,5 \cdot 10^{12}/l$ , Hb-42 g/l, CI-0,8, reticul-0,1%, L- $1,0 \cdot 10^9/l$ , e-1%, r/n-1%, s/n-45%, l-51%, m-2%, T- $50,0 \cdot 10^9/l$ , blood sedimentation-45 mm/h. What is the most reliable diagnosis:

- A. Verlgoph`s disease
- B. \*Aplastic anemia
- C. Iron deficiency anemia
- D. Hemorrhagic vasculitis
- E. Posthemorrhagic anemia

The 37 years old man complains on weakness, periodic attacks of pain in the right subcostum, which appeared 2 years ago. In the anamnesis: from 16 years periodically icteric colour of skin is marked. Objectively: skin and mucouses are icteric, hepatosplenomegaly. In blood test: E- $2,4 \cdot 10^{12}/l$ , H-84 g/l, CI-1,0, reticul-4%, blood sedimentation-22 mm/h, osmotic resistance of erythrocytes is reduced, microspherocytosis, indirect bilirubin-56 mkmol/l, direct-8,2 mkmol/l. What pathogenesis of anemia the patient has:

- A. \*Genetic defect of membrane of erythrocytes
- B. Disturbance of structure of molecule of hemoglobin
- C. Disturbance of structure or synthesis of chains of globin
- D. Influence of antibodies on erythrocytes
- E. Toxic hemolysis

The 48 years old man was ill on flu 2 weeks ago, now he complains on dyspnea, palpitation. Objectively: skin and mucouses are icteric, temperature of body- $37,8^{\circ}C$ , pulse-120, AP-105/70, spleen is palpated. In blood test: E- $2,0 \cdot 10^{12}/l$ , Hb-70 g/l, CI-1,0, reticul-18%, osmotic resistance and middle diameter of erythrocytes are norm, general bilirubin-76 mkmol/l, indirect-63 mkmol/l. What is the most reliable diagnosis:

- A. Markiafav – Mikelli`s disease
- B. Hereditary microspherocytosis
- C. Benign hyperbilirubinemia
- D. \*Autoimmune hemolytic anemia
- E. Cholecystolithiasis

The patient P., 58 years old, complains on causeless appearance of bruises on skin, hemorrhage of gums, dizziness. Objectively: the mucouses and skin are pale, with numerous hemorrhages of different remoteness, lymphatic knots are not increased, pulse-100, AP-110/70. In blood test: E- $3,0 \cdot 10^{12}/l$ , Hb-92 g/l, CI-0,7, anisocytosis, poikilocytosis, L- $10,0 \cdot 10^9/l$ , e-2%, r/n-12%, s/n-68%, l-11%, m-7%, blood sedimentation-12 mm/h. What laboratory index it is expedient to define for clarification of diagnosis:

- A. Osmotic resistance of erythrocytes
- B. Content of reticulocytes
- C. Clotting time of blood
- D. \*Content of thrombocytes
- E. Fibrinogen

The 30 years old woman first appealed to doctor with complaints on frequent nose-bleedings, appearance of bruises on body. She is ill for half a year. After examination the diagnosis of idiopathic thrombocytopenic purpura is set. From what it is necessary to begin treatment of the sick:

- A. Transfusion of thrombocyte concentrate
- B. Cytostatic preparations
- C. Immunoglobulin
- D. Splenectomy
- E. \*Glucocorticoids

The 60 years old woman during 4 years is under surveillance of doctor-hematologist concerning chronic lympholeukemia. During last 6 months she had pneumonia twice. In blood test: E- $3,1 \cdot 10^{12}/l$ , Hb-90 g/l, CI-0,9, L- $160,0 \cdot 10^9/l$ , e-1%, r/n-2%, s/n-21%, l-74%, m-2%, blood sedimentation-20 mm/h, general protein-60 g/l, gamma-globulin-14%. What changes in blood are more credible to assist development of complications at the sick:

- A. Decrease of hemoglobin
- B. \*Hypogammaglobulinemia
- C. Increase of leucocytes
- D. Increase of lymphocytes
- E. Hypergammaglobulinemia

The 72 years old man complains on rapid fatigability, perspiration, which appeared two months ago. Objectively: t- $37,7^{\circ}C$ , liver +2 sm, spleen +8 sm, dense, sensible. In blood test: E- $3,2 \cdot 10^{12}/l$ , Hb-110 g/l, CI-1,1; L- $255 \cdot 10^9/l$ , bas-7%, e-9%, promyel-2%, myel-22%, metamyel-20%, r/-17%, s/n-15%, l-8%, blood sedimentation-15 mm/h, T- $250,0 \cdot 10^9/l$ . What disease is more reliable stipulated such changes in blood:

- A. Erythremia
- B. Acute myeloblastic leukemia
- C. Non – Hodgkin`s lymphoma
- D. \*Chronic myeloleukemia
- E. Leukemoid reaction of myeloid type

The 60 years old woman complains on weakness, rapid fatigability for a year. Heavy feeling in the left subcostum, subfebrile temperature, weight loss joined a month ago. Objectively: skin is pallor, liver +2 sm, spleen +7 sm, dense, moderately painful. In blood test: E- $3,0 \cdot 10^{12}/l$ , Hb-110 g/l, CI-1,1, L- $280,0 \cdot 10^9/l$ , blast cells-23%, bas-6%, e-6%, myel-10%, r/n-19%, s/n-7%, l-19%, T- $180 \cdot 10^9/l$ , blood sedimentation-32 mm/h. What is the most reliable diagnosis:

- A. \*Chronic myeloleukemia, blastic crisis
- B. Acute myeloblastic leukemia
- C. Acute lymphoblastic leukemia
- D. Chronic lympholeukemia
- E. Leukemoid reaction of myeloid type

The 28 years old woman complains on weakness, periodic increase of temperature of body to  $39,0^{\circ}C$ , perspiration at night-time, weight loss. Objectively: skin is pale, increased cervical, supraclavicular and inguinal lymphatic knots, which are palpated by size to 1,5-2 sm, dense, unpainful. In blood test: E- $3,0 \cdot 10^{12}/l$ , Hb-90 g/l, CI-0,8, L- $13,0 \cdot 10^9/l$ , e-3%, r/n-9%, s/n-78%, l-7%, m-3%, blood sedimentation-48 mm/h. Suspicion about lymphogranulomatosis appeared, biopsy of lymphatic knot is appointed to. The presence of what changes is reliable at the research:

- A. Proliferation of prolymphocytes and lymphoblasts
- B. Proliferation of lymphocytes, lymphoblasts

- C. \*Berezovsky – Shternberg cells
- D. Proliferation of prolymphocytes and lymphocytes
- E. Proliferation of lymphocytes and plasmocytes

At the 68 years old woman in blood test anemia and increase of blood sedimentation were discovered. In the anamnesis: during last 1,5 years there were fractures of bones twice. Objectively: pallor of skin, painful senses at percussion of ribs. In blood test: E-2,4\*10<sup>12</sup>/l, Hb-76 g/l, CI-0,9, L-4,8\*10<sup>9</sup>/l, e-1%, r/n-4%, s/n-60%, l-28%, m-7%, blood sedimentation-76 mm/h, T-140\*10<sup>9</sup>/l. In analysis of urine: protein-3,3 g/l, L-6-8, E-8-10. Conducting of what research is more expedient for confirmation of diagnosis:

- A. Bence-Jones protein of urine
- B. Biopsy of kidneys
- C. Urgent urography
- D. \*Sternal puncture
- E. Immunoglobulins of blood

The 28 years old woman appealed to doctor with complaints on hemorrhages on the front surface of trunk and extremities, bleeding from gums. In blood test: T-20,0x10<sup>9</sup>/l; in bone marrow number of megakaryocytes is increased. Treatment with glucocorticoids was conducted and gave positive effect. What disease was diagnosed at the woman:

- A. Hemorrhagic vasculitis
- B. Hemophilia
- C. Randyu-Osler`s disease
- D. DIC - syndrome
- E. \*Idiopathic thrombocytopenic purpura

The 28 years old sick appealed to internist with complaints on weakness, dizziness, nose-bleedings. She is ill for 4 months. Objectively: there are hemorrhages in the area of stomach and thighs by size 1-2 sm of different color. Liver and spleen are not increased. In blood test: E-2,6\*10<sup>12</sup>/l, Hb-90 g/l, CI-0,8, iron of blood serum-8,0 mkml/l, L-4,2\*10<sup>9</sup>/l, e-2%, r/n-7%, s/n-40%, m-6%, l-45%, T-47,1\*10<sup>9</sup>/l, blood sedimentation-27 mm/h. Your previous diagnosis:

- A. \*Idiopathic thrombocytopenic purpura
- B. Hemolytic anemia
- C. Chronic iron deficiency anemia
- D. Chronic lympholeukemia
- E. Aplastic anemia

The patient P., 50 years old, complains on weakness, dizziness, heavy feeling in the upper half of stomach, paresthesias in finger-tips of hands and feet. Objectively: yellowness of skin, language of raspberry color, hepatomegaly. At blood: E-2,3\*10<sup>12</sup>/l, Hb-90 g/l, reticul-0,2%, CI-1,3, macrocytosis, Jolly`s bodies. Specify, what is not characteristic for this anemia:

- A. Paresthesia
- B. Ataxia
- C. Muscular atrophy
- D. Delirium, hallucinations
- E. \*Decrease of intellect

Patient A., 26 years old, complains on fever, itch of skin, perspiration at night. Objectively: temperature of body-38,6C, right supraclavicular lymphatic knot is palpated, it is increased, mobile. What research is the most informative for confirmation of diagnosis:

- A. Albuminous fractions of blood
- B. General analysis of blood
- C. Survey sciagraphy of pectoral cavity
- D. Immunogram
- E. \*Puncture of lymphatic knot

At the 28 years old sick expressed icterus appeared after self-treatment of flu with unsteroid anti-inflammatory preparations and antibiotics. At examination increased liver, oliguria, dark colouring of urine are discovered. Laboratory researches: E-2,0\*10<sup>12</sup>/l, Hb-60 g/l, CI-0,9, L-12\*10<sup>9</sup>/l with change of formula to the left, reticul-14%. The increase of indirect fraction of bilirubin is determined in serum of blood. The Coombs` test is positive. About what disease it is possible to think:

- A. Acute glomerulonephritis
- B. Aplastic anemia
- C. Toxic hepatitis
- D. Acute leukemia
- E. \*Autoimmune hemolytic anemia

The patient S., 73 years old, appealed to neurologist with complaints on pain in lumbar area. The doctor diagnosed radiculitis. After the conducted physical therapy condition of patient was not improved. After additional research on R-grams of bones of spine and pelvis osteoporosis and defects of bones were found out. In blood test: moderate normochromic anemia, in urine - proteinuria, general protein of blood serum -97 g/l. About what disease it follows to think:

- A. Osteochondrosis with radicular syndrome
- B. Senil osteoporosis
- C. \*Multiple myeloma
- D. Metastases in bones
- E. Lymphogranulomatosis

The patient O., 31 years old, appealed to doctor with complaints on fever, weight loss, itch of skin. At objective inspection increased unpainful lymphatic knot in the left supraclavicular area is discovered. Liver and spleen are not increased. In blood test: Hb-80 g/l, L-16,6x10<sup>9</sup>/l, e-2%, r/n-8% s/n-60%, l-24%, m-6 %, blood sedimentation-55 mm/h, T-190\*10<sup>9</sup>/l. What is the most expedient research for confirmation of diagnosis:

- A. FGDS
- B. Trepanobiopsy
- C. Sternal puncture
- D. Bens-Jones protein of urine
- E. \*Biopsy of lymphatic knot

The patient Y., 18 years old, is hospitalized with bleeding from incised wound of palm, which lasted 2 days. Considerable bleeding at wounds was observed from childhood. The similar phenomena are marked at cousin for the line of mother. Skin is pale, knee and ankle joints are increased, deformed, motions in them are limited. Laboratory researches: number of thrombocytes-320,0x10<sup>9</sup>/l, bleeding time by Dyuke-3 minutes. What preparations it is necessary to enter the patient:

- A. \*Cryoprecipitate
- B. Heparin
- C. Prednizolon
- D. Thrombocytaric mass
- E. Calcii gluconati 25

The sick, 30 years old, complains on weakness, hemorrhage of gums, increase of temperature of body, pain in throat. There was contact with aniline dyes during 8 years. At examination: skin is pale, with numerous petechias and ecchymoses, liver and spleen are not palpated. In blood test: E- $2,5 \cdot 10^{12}/l$ , Hb-80 g/l, CI-0,9, L- $2,4 \cdot 10^9/l$ , Thr- $50,0 \cdot 10^9/l$ , blood sedimentation-40 mm/h. In myelogram: bone marrow is with acutely reduced number of cells. What diagnosis can be suspected at the patient:

- A. Acute leukemia
- B. \*Hypoplastic anemia
- C. B12 deficiency anemia
- D. Verlgoph`s disease
- E. Agranulocytosis

The sick I., 41 years old, complains on pain in throat, ribs and breastbone. At examination: t of body -  $38,0^{\circ}C$ , skin is pale, with presence of petechias and bruises, pulse 100, insignificant hepatosplenomegaly, there are numerous ulcers with necrotic edges on the mucous of mouth. In blood test: E- $2,5 \cdot 10^{12}/l$ , Hb-70 g/l, CI-0,9, L- $28,0 \cdot 10^9/l$ , blast-78%, s-4%, l-13%, m-5 %, T- $17,5 \cdot 10^9/l$ . blood sedimentation-60 mm/h. What is the most reliable diagnosis:

- A. \*Acute leukemia.
- B. Diphtheria
- C. Hemorrhagic vasculitis
- D. Chronic hepatitis
- E. Stomatitis

The patient T., 62 years old, complains on permanent pain in breastbone and loin, general weakness, stuffiness. On the sciagram of spine: clinoid deformation of Thx, diffuse osteoporosis of almost every vertebra. In blood test: Hb-90 g/l, E- $2,1 \cdot 10^{12}/l$ , L- $3,8 \cdot 10^9/l$ , Thr- $170,0 \cdot 10^9/l$ , blood sedimentation-78 mm/h. General protein of blood-110 g/l. In urine: protein-2,9 g/l, L-2-4, E-4-6, are changed, hyalin cylinders-2-4. In myelogram-18% of plasma cells. What is the most reliable diagnosis:

- A. Compressional break of vertebra
- B. Metastases of tumor in spine
- C. Amyloidosis of kidneys
- D. \*Multiple myeloma
- E. Acute leukemia

The 38 years old woman, who suffers on menorrhagias, complains on twinkling of "spots" before eyes, dizziness, fragility of nails, hair fall. At examination: skin is pale and dry, pulse – 100, rhythmic. In blood test: E- $3,3 \cdot 10^{12}/l$ , Hb-90 g/l, CI-0,7, reticul-0,8%, L- $4,8 \cdot 10^9/l$ , e-2%, r/n-3%, s/n-62%, l-25%, m-10%, hypochromia of erythrocytes, microcytosis, iron of blood serum - 4,2 mkmol/l. What is the most reliable diagnosis:

- A. Hypoplastic anemia
- B. Hemolytic anemia
- C. B12 deficiency anemia
- D. Thalassemia
- E. \*Iron deficiency anemia

The sick F., 49 years old, complains on pain in the left subcostum, general weakness, rapid fatigability, weight loss. Objectively: skin and mucouses are moderately pale, pulse-92, rhythmic, liver +4 sm, painless, dense, lower edge of spleen is at the level of umbilicus. In blood test: E- $3,0 \cdot 10^{12}/l$ , Hb-90 g/l, CI-0,9, L- $540,0 \cdot 10^9/l$ , promyel-10%, myel-13%, youn-11%, r/n-28%, s/n-



22%, e-5%, bas-4%, l-4%, m-3%, T-345,0\*10<sup>9</sup>/l, blood sedimentation-38 mm/h. What is the most reliable diagnosis:

- A. Leukemoid reaction of myeloid type
- B. \*Chronic myeloleukemia
- C. Budd – Chiari syndrome
- D. Cirrhosis of liver
- E. Chronic lympholeukemia

The 45 years old man complains on general weakness, dizziness. During 15 years there is ulcer of duodenum. Objectively: skin is pale, pulse-100, AP-100/70. At subsequent inspection anemia, low colour index in blood test are discovered.

Colour index - is:

- A. Ratio of the volume of form elements of blood to the volume of blood
- B. \*Degree of admission of every erythrocyte with hemoglobin
- C. Increase of number of erythroblasts in bone marrow
- D. Percent correlation of separate forms of leukocytes of blood
- E. Blood sedimentation

The 60 years old woman complains on general weakness, sense of overfill in epigastrium, nausea, belch after meal. She is ill over 10 years. Objectively: skin and mucouses are pale, pulse-98, AP-115/75. In blood test: E-2,0\*10<sup>12</sup>/l, Hb-100 g/l. Antibodies to oxyntic cells of stomach are found out. What is the most credible reason of development of anemic syndrome at the sick:

- A. \*Production of antibodies to gastromucoprotein
- B. Disturbance of synthesis of hemoglobin
- C. Disturbance of synthesis of erythropoetin
- D. Disturbance of suction of iron
- E. Increase of charge of iron

The patient P., 60 years old, complains on general weakness, feeling of weight in epigastrium and belch after meal. Objectively: skin and of mucouses are pale, pulse- 110, AP-115/70. In blood test: E-2,0\*10<sup>12</sup>/l; Hb-100 g/l; CI-1,5, blood sedimentation-28 mm/h. Antibodies to oxyntic cells of stomach are found out. What is the best tactic of treatment of anemic syndrome at the sick:

- A. Preparations of hydrochloric acid
- B. \*Vitamin B12 intramuscular
- C. Preparations of iron per os
- D. Preparations of iron parenteral
- E. Transfusion of packet red cells

The 45 years old man complains on general weakness, dizziness. During 15 years there is ulcer of duodenum. Objectively: skin is pale, pulse-100, AP-90/70. What primary inspection must be conducted at the patient:

- A. General blood test, maintenance of ferritin of blood
- B. \*General blood test, FGDS
- C. Content of iron of blood
- D. Content of ferritin of blood
- E. General analysis of blood, maintenance of iron of blood

The 54 years old woman complains on weakness, numbness of finger-tips, shaky step, heartburn in language. Objectively: skin is pale, pulse-110, systolic noise above the apex of heart, language of bright red. In blood test: E-2,3\*10<sup>12</sup>/l, Hb-58 g/l, reticul-0,2%, CI-1,3, macrocytosis, L-2,8\*10<sup>9</sup>/l,

blood sedimentation-40 mm/h., T-120,0\*10<sup>9</sup>/l. What pathogenetic factor conducts in development of anemia:

- A. Tumor oppression of normal blood formation
- B. Intravascular hemolysis
- C. Disturbance of synthesis of hemoglobin
- D. Disturbance of transport of iron from reticuloendothelial depot
- E. \*Disturbance of differentiation of erythroid cells

At the sick, 42 years old, after acute respiratory disease, fever is saved. At examination: on the skin of trunk and extremities - petechia-macular rash, lymphatic knots of arm-pits are increased, soft, painless, tachycardia, systolic noise above all auscultative points, liver and spleen are increased. In blood test: Hb-100 g/l, E-3,1\*10<sup>12</sup>/l, CI-1,0, L-3,5\*10<sup>9</sup>/l, blast-33%, r/n-3%, s/n-35%, e-1%, l-20%, m-8%, blood sedimentation-20 mm/h., T-55,0\*10<sup>9</sup>/l. What diagnosis is most credible:

- A. Chronic myeloleukemia
- B. Infectious endocarditis
- C. \*Acute leukemia
- D. Verlgoph's disease
- E. Lymphogranulomatosis

The patient T., 19 years old, marked growing weakness, skin hemorrhages, nose-bleedings, subfebrile temperature during last 2 months. Lymphatic knots, liver, spleen, are not increased. In blood test: E-1,5\*10<sup>12</sup>/l, Hb-50 g/l, reticul-0,1%, CI-0,9, L-1,8\*10<sup>9</sup>/l, e-1%, r/n-3%, s/n-58%, l-33%, m-5%, T-30,0\*10<sup>9</sup>/l, blood sedimentation-60 mm/h., iron of blood serum -15 mkmol/l. What is the most credible diagnosis:

- A. Hemolytic anemia
- B. Acute leukemia
- C. \*Aplastic anemia
- D. B12 deficiency anemia
- E. Iron deficiency anemia

The 37 years old woman complains on muscular weakness, palpitation, hard swallowing of meal, has a desire to eat chalk. Objectively: satisfactory feed, skin is pale, pulse-116, AP-90/70. In blood test: E-3,1\*10<sup>12</sup>/l, Hb-80 g/l, CI-0,7, reticul-0,8%, L-4,7\*10<sup>9</sup>/l, e-2%, r/n-3%, s/n-64%, l-26%, m-5%, blood sedimentation-15 mm/h. Iron of blood serum-4,3 mkmol/l, general protein-70 g/l. The deficit of what element stipulated the origin of the disease:

- A. Protein
- B. Vitamin B6
- C. Vitamin B12
- D. \*Iron (Fe<sup>++</sup>)
- E. Folic acid

The 23 years old student complains on pain in knee-joints, increase of temperature of body. In the anamnesis: there was angina 10 days ago. Objectively: t-37,8°C, heart rate-120, AP-105/70, knee joints, slightly swollen, there are symmetric hemorrhagic rash on the skin of shins. In blood test: L-8,4\*10<sup>9</sup>/l, blood sedimentation-22 mm/h., T-190,0x10<sup>9</sup>/l, prothrombin index-90%. Diurnal proteinuria-0,66 g/l., in analysis of urine by Nechiporenko: L-2000, E-9000 in 1mkl. What is the most credible diagnosis:

- A. Verlgoph's disease
- B. \*Hemorrhagic vasculitis
- C. Acute rheumatic fever

- D. Systemic lupus erythematosus
- E. Nodular periarteritis

The 38 years old man, who is suffering on hemorrhoid, complains on twinkling of "spots" before eyes, dizziness. At examination: pallor of skin, pulse-100, AP-90/60, systolic noise above the apex of heart. In blood test: Hb-95 g/l, E-3,3\*10<sup>12</sup>/l, CI-0,7, L-9,8\*10<sup>9</sup>/l, e-2%, r/n-3%, s/n-70%, l-24%, m-1%, blood sedimentation-25 mm/h., hypochromia of erythrocytes, iron of blood serum-5,2 mkmol/l. What is the most reliable reason of sistolic noise:

- A. Narrowing of main vessels
- B. Myocarditis
- C. Tachycardia
- D. Low AP
- E. \*Acceleration of blood flow

The sick C., 39 years old, marks weakness, dizziness, dyspnea, muscular weakness during 4 months. In the anamnesis: fibromyoma of uterus, uterine bleeding. In blood test: Hb-80 g/l, E-2,2\*10<sup>12</sup>/l, CI-0,7, blood sedimentation-28 mm/h., anisocytosis, poikilocytosis, iron of blood serum-5,3 mkmol/l. Tactic of conducting of the sick:

- A. Dietary nutrition
- B. Complex of vitamins
- C. Permanent reception of preparations of iron
- D. \*Dietary nutrition, course reception of preparations of iron
- E. Dietary nutrition, complex of vitamins

The patient, 19 years old, complains on general weakness, pain in bones, fever. At examination systematic increase of lymphatic knots, hepatolienal syndrome are found out. In blood test: E-2,2\*10<sup>12</sup>/l, Hb-67 g/l, L-20\*10<sup>9</sup>/l, blast-45%, r/n-3%, s/n-7%, l-40%, m-5%, T-45,0\*10<sup>9</sup>/l, blood sedimentation-55 mm/h. What diagnosis can be set at the patient:

- A.\*Acute leukemia
- B. Chronic myeloid leukemia
- C. Chronic lympholeukemia
- D. Hypoplastic anemia
- E. Agranulocytosis

At the patient T., 68 years old, systematic increase of lymphatic knots, hepatosplenomegaly, icterus are found out. In blood test: E-2,4\*10<sup>12</sup>/l, Hb-65 g/l, reticul-10%, T-190\*10<sup>9</sup>/l, L-250\*10<sup>9</sup>/l, r/n-1%, s/n-7%, l-87%, m-5%, blood sedimentation-55 mm/h. What complication of basic disease can be suspected on clinic-laboratory indexes:

- A. Toxic neutropenia
- B. Aplastic anemia
- C. \*Autoimmune hemolysis
- D. Agranulocytosis
- E. Hepatitis

The patient with chronic myeloleukemia complains on acute pain in the left subcostum. Objectively: protective tension of muscles is discovered at palpation in the projection of the left part of stomach, the pole of spleen is palpated. At auckultation of subcostum noise of friction is marked. What complication does it follow to suspect:

- A. Renal colic
- B. Strangulation of diaphragmatic hernia

- C. Acute pancreatitis
- D. \*Infarct of spleen
- E. Torsion of colon

The patient S., 57 years old, at examination widespread osteoporosis of vertebra is found out. In blood test: E-3,4\*10<sup>12</sup>/l, Hb-80 g/l, T-145,0\*10<sup>9</sup>/l, L-5,6\*10<sup>9</sup>/l, e-3%, r/n-5%, s/n-57%, l-29%, m-6%, blood sedimentation-55 mm/h. In analysis of urine: protein-0,264 g/l. General protein of blood is 108 g/l. What research must be done for confirmation of diagnosis:

- A. Definition of circulating immune complexes
- B. Definition of level of parathyroid hormone
- C. \*Sternal puncture
- D. Densytometry
- E. Biopsy of kidneys

The sick L., 18 years, is hospitalized with bleeding from incised wound of palm, which lasted 2 days. Skin is pale, knee and ankle joints are increased, deformed, motions in them are limited. Laboratory researches: number of thrombocytes -420,0\*10<sup>9</sup>/l, bleeding time by Dyuke-3 minutes, clotting time by Li-Uayt-27 min., prothrombin index-100%, fibrinogen-4 g/l. The prophylaxis of what complication needs to be conducted at the patient:

- A. Pathological fractures
- B. \*Posthemorrhagic anemia
- C. Thrombosis
- D. Aplastic anemia
- E. Infecting of hematoma

The 63 years old man marks headache during few years, periodic pressing pain in the area of heart. In the anamnesis: smoking more than 40 years; two packs of cigarettes a day. Objectively: face of red color, there are dry, whistling rales above lungs, AP-185/95. In peripheral blood: E-6,5\*10<sup>12</sup>/l, Hb-185 g/l, L-6,0\*10<sup>9</sup>/l, blood sedimentation-5 mm/h. T-190\*10<sup>9</sup>/l. What primary research needs to be conducted for clarification of diagnosis:

- A. \*US investigation of abdominal cavity, research of function of external breathing
- B. ECG, ECHOCS
- C. Sternal puncture
- D. Consultation of oculist
- E. US investigation of abdominal cavity

At the 23 years old man has fever, perspiration, dizziness, nasal and gingival bleeding, hemorrhages on the skin of trunk during a week. In blood test: Hb-72 g/l, E-2,3\*10<sup>12</sup>/l, L-7,6\*10<sup>9</sup>/l, blast-86%, s-5%, l-9%, blood sedimentation-23 mm/h. This state is characterized with all resulted syndromes, except:

- A. Anemic
- B. Hemorrhagic
- C. Ulcerous-necrotic
- D. Infectious
- E. \*Bronchospastic

The sick D., 56 years old, marks weakness, pain in bones, decline of appetite, headache during 4 months. Treated oneself at neurologist, passed completed course of manual therapy. Laboratory researches: anemia, general protein-112 g/l, blood sedimentation-68 mm/h, moderate proteinuria. On

the sciagram of pelvis there are defects of bone fabric of the rounded form. What diagnosis can be set at the patient:

- A. \*Multiple myeloma
- B. Metastases of tumor in bones
- C. Systematic osteoporosis
- D. Amyloidosis of kidneys
- E. Chronic glomerulonephritis

The patient T., 62 years old, is hospitalized in comma. In blood test: Hb-38 g/l, E-  $0,7 \cdot 10^{12}/l$ , CI-1,2, macrocytosis, reticul-0,2 %, leukopenia, thrombotcyopenia. In bone marrow: megaloblastic type of blood formation. Name the preparation for effective treatment of the sick:

- A. Preparations of iron intravenous
- B. Packet red cells intravenous drop
- C. \*Cyancobalamin intramuscular, packet red cells intravenous drop
- D. Preparations of iron intravenous, packet red cells intravenous drop
- E. Cyancobalamin intramuscular

The sick S., 50 years old, complains on general weakness, dizziness. Objectively: pallor of skin, language is as raspberry, at FGDS: atrophy gastritis, Ph-metry: achilia. In blood test: E- $2,3 \cdot 10^{12}/l$ , Hb-90 g/l, CI-1,2, macrocytosis, Jolly`s bodies, Cebot`s rings. For this condition is characteristic all signs, except:

- A. Pallor of skin with lemon tint
- B. Ataxia
- C. Paresthesia
- D. \*Exhaustion
- E. Subicteric colour of white of the eyes

The sick K., 60 years old, appealed with complaints on increased crabbiness, feeling of "wadding" feet, numbness of tiptoes. Objectively: skin is pale, white of the eyes are subicteric, liver +2 sm, spleen +2 sm, moderately painful. In blood test: E- $1,3 \cdot 10^{12}/l$ , Hb-58 g/l, CI-1,3, reticul-0,2%, blood sedimentation-30 mm/h., macrocytosis. What is needed to conduct for confirmation of diagnosis:

- A. Roentgenologic research of stomach
- B. Endoskopic research of stomach
- C. \*Sternal puncture
- D. Definition of osmotic resistance of erythrocytes
- E. Definition of iron of blood serum

The patient T., 20 years old, is hospitalized in clinic with complaints on pain in throat, bleeding from gums, increase of temperature to  $38,5^{\circ}C$ , osalgia. In blood test: E- $2,2 \cdot 10^{12}/l$ , Hb-60 g/l, L- $16,0 \cdot 10^9/l$ , blast-50%, r/n-1%, s/n-12%, l-32%, m -5%, CI-0,8, T- $76,0 \cdot 10^9/l$ , blood sedimentation-38 mm/h. Name the characteristic changes of blood at this condition:

- A. Anemia
- B. Leukotcytosis
- C. Reticulocytopenia
- D. Appearance of blastic cells
- E. \*All answers are true

The sick N., 54 years old, complains on weakness, palpitation at step, dyspnea. In blood test: E- $1,8 \cdot 10^{12}/l$ ; Hb-81g/l; CI-1,3; L- $3,2 \cdot 10^9/l$ , macrocytosis, T- $140,0 \cdot 10^9/l$ . General bilirubin-47,6

mkmol/l, mainly due to indirect. Doctor suspected B12 deficiency anemia. What disease can not result the increased loss of vitamin B12:

- A. Intestinal vermins
- B. Dysbiosis
- C. \*Ulcer of duodenum
- D. Disease of liver
- E. Leukemia

At the patient C., 52, splenomegaly is found out without special subjective complaints. In blood test: Hb-132 g/l; L-52,0\*10<sup>9</sup>/l, e-5%, bas-2%, myeloblast-6%, promyel-5%, myel-6%, youn-8%, r/n-4%, s/n-4 %, l-12%, m-6%; blood sedimentation-19 mm/h. It is expedient to use at treatment:

- A. Scheme "5+2"
- B. Cyclophosphan
- C. \*Hydrxiourea (hydrea)
- D. Prednizolon
- E. Treatment is not necessary

The sick M., 40 years old, entered clinic with complaints on nasal and uterine bleeding, presence of bruises on skin. In the anamnesis: viral infection 2 weeks ago. On the skin of trunk and extremities there are bruises. In blood test: E-2,6\*10<sup>12</sup>/l, Hb-80 g/l, thrombocytes-25,0\*10<sup>9</sup>/l, L-6,8x10<sup>9</sup>/l, leukocytar formula is without changes. Blood sedimentation-30 mm/h. Bleeding time by Dyuke is 13 minutes. Appoint treatment:

- A. Preparations of vitamin K
- B. Transfusion of packet red cells
- C. Transplantation of bone marrow
- D. Antihemophyl immunoglobulin
- E. \*Glucocorticoids

The girl, 18 years old, complains on acute pain in throat, increase of temperature of body to 40,0°C. In the anamnesis: acute respiratory infection a week ago, treated with analgin and biseptol; condition was improved briefly. At examination: there are necrotic ulcers on mucous of mouth cavity. In blood test: E-3,8x10<sup>12</sup>/l, Hb-115 g/l, T-100,0x10<sup>9</sup>/l, L-0,8x10<sup>9</sup>/l, e-1%, r/n-1%, s/n-4%, l-77%, m-15%, plasma cells-2%. Blood sedimentation-46 mm/h. What treatment must be appointed:

- A. Antiseptic preparations locally
- B. Cytostatic preparations
- C. Antihistaminic preparations
- D. Stimulators of erythrocytopoiesis
- E. \*Glucocorticoids

The 49 years old man marks weakness, palpitation, icterus. Objectively: t of body - 37,8 °C, skin and white of the eyes are subicteric, liver +2 sm, spleen +3 sm. In blood test: E-3,0x10<sup>12</sup>/l, Hb-90 g/l, CI-0,9, reticul-18%, maximal osmotic resistance of erythrocytes -0,48, general bilirubin-76 mkmol/l, indirect-63 mkmol/l. What additional research it is expedient to appoint for clarification of diagnosis:

- A. Activity of glyco-6-phosphat-dehydrogenase
- B. Definition of transaminases
- C. Bilious pigments of urine
- D. \*The Coombs` test
- E. Markers of viruses of hepatitis

The patient B., 48 years old, complains on weakness, palpitation and dyspnea at the insignificant physical load. There are swelling of stomach, diarrhea, especially after milk products after toxicoinfection. Objectively: skin and mucous are pale, at palpation painful thick intestine. In blood test: E- $3,1 \cdot 10^{12}/l$ , Hb-70 g/l, CI-0,65, L- $4,0 \cdot 10^9/l$ , blood sedimentation-22 mm/h. What additional research it is expedient to conduct:

- A. Puncture of bone marrow
- B. Definition of vitamin B12 in blood
- C. Coprogram
- D. The Coombs' test
- E. \*Definition of iron of blood serum

The sick M., 65 years old, who is observed at dermatologist concerning obtrusive itch of skin for a few years, lately marks headache. In the anamnesis: smoking during 40 years. Objectively: redder-cyanotic colour of face, AP-170/100, dry rales in lungs, splenomegaly. In blood test: E- $7,9 \cdot 10^{12}/l$ , Hb-210 g/l, L- $12,8 \cdot 10^9/l$ , T- $364,0 \cdot 10^9/l$ , blood sedimentation-1 mm/h., circulating blood volume-8,1 l. What treatment can be appointed:

- A. Exsanguination
- B. Leukeran
- C. Roentgenotherapy of spleen
- D. Roentgenotherapy of bone marrow
- E. \*Hydrea

The sick B., 53 years old, complains on increase of temperature of body, pain in joints, in stomach. At examination: skin and white of the eyes are pale, icteric, liver +3 sm, the pole of spleen is palpated. In blood test: Hb-72 g/l, CI-0,85, reticul-5%; blood sedimentation-26 mm/h, bilirubin-52 mkmol/l, indirect-48 mkmol/l; gamma-globulin-26%; ALT-0,7 мкмоль/л; the direct Coombs' test is positive. Your previous diagnosis:

- A. \*Autoimmune hemolytic anemia
- B. Chronic hepatitis
- C. Hereditary microspherocytic anemia
- D. Gilbert's syndrome
- E. B12 deficiency anemia

At the patient Z., 67 years old, with hepatolienal syndrome during 2 years there are increased peripheral lymphatic knots, which are soft, unconnected with adjoining fabrics at palpation. In blood test: L- $120,0 \cdot 10^9/l$ , r/n-1%, s/n-9%, l-87%, m-3%. Blood sedimentation-40 mm/h. In what age this disease is more frequent:

- A. At young
- B. At mature.
- C. At children
- D. At teenagers
- E. \*At elderly

The sick D., 28 years old, after supercooling noticed fever, pain in muscles and upper half of stomach. Moderate icterus, dark feces and urine appeared in a day. Objectively: skin, white of the eyes, mucous are icteric, hepatosplenomegaly. In blood test: E- $2,8 \cdot 10^{12}/l$ , Hb-80 g/l, CI-0,8, T- $230,0 \cdot 10^9/l$ , L- $9,5 \cdot 10^9/l$ , reticul-7%, blood sedimentation-20 mm/h. Biochemical blood test: general bilirubin-67,0 mkmol/l, indirect-58,3 mkmol/l, direct-8,7 mkmol/l. The Coombs' test is positive. What disease can be suspected at the sick:

- A. Gilbert's syndrome

- B. Acute hepatitis
- C. \*Hemolytic anemia
- D. Rotor syndrome
- E. Cholecystolithiasis

The man, 42 years old, complains on headache, increase of arterial pressure to 200/120, itch of skin after soul. In blood test: E- $6,2 \cdot 10^{12}/l$ , Hb-200 g/l, T- $650,0 \cdot 10^9/l$ , L- $12,2 \cdot 10^9/l$ , e-7%, r/n-10%, s/n-64%, l-15%, m-4%, blood sedimentation-1 mm/h. What the itch of skin is linked with:

- A. \*Predominance of maintenance of granulocytes
- B. Allergic reaction
- C. Thrombocytosis
- D. Erythrocytosis
- E. All answers are true

The 20 years old youth has signs of hemolytic crisis. Similar crises were observed in 5 and 9 years old. In the anamnesis: operation concerning "wolfish fall" in age of 2 years. Objectively: yellowness of skin and white of the eyes, spleen is increased. In blood test: E- $2,3 \cdot 10^{12}/l$ , Hb-68 g/l, blood sedimentation-38 mm/h, microspherocytosis, decline of osmotic resistance of erythrocytes. What method of treatment is the most effective in this case:

- A. Plasmapheresis
- B. \*Splenectomy
- C. Glucocortikoids
- D. Cytostatic preparations
- E. Hemosorbtion

The woman, 68 years old, hospitalized with complaints on pain in ribs, general weakness. Objectively: skin is pale; pain is marked at pressure on thorax. In blood test: E- $2,6 \cdot 10^{12}/l$ , Hb-78 g/l, L- $6,1 \cdot 10^9/l$ , blood sedimentation-84 mm/h; glucose of blood-5,2 mmol/l; general protein-100 g/l. In analysis of urine: specific weight-1015, protein-4,0 g/l, E-1-3; L-2-3. What research is contra-indicated:

- A. Sternal puncture
- B. \*Excretory urography
- C. Survey urogram
- D. Biopsy of kidney
- E. US investigation of kidneys 35

The sick L., 29 years old, appealed to internist concerning growing weakness, pain in bones, fever. At examination: pallor of skin, there are petechial-macular rash on the skin of trunk and extremities. Subaxillary lymphatic knots are increased to 1,5x2,0 sm, soft, painless. In blood test: E- $3,1 \cdot 10^{12}/l$ ; Hb-80 g/l, CI-0,8, L- $2,2 \cdot 10^9/l$ ; blast-36%, r/n-3%, s/n-16%, l-41%, m-4%, Thr- $40,0 \cdot 10^9/l$ ; blood sedimentation-44 mm/h. Aleukemic leukemia – is:

- A. Appearance of blastic cells in blood
- B. Absence of blastic cells in blood
- C. Number of blastic cells is increased in myelogram
- D. Appearance of reticulocytes in blood
- E. \*Decrease of leukocytes in blood

The 40 years old woman, who suffers on menorrhagia, complains on twinkling of "spots" before eyes, dizziness, fragility of nails, hair fall. At examination: pallor of skin and mucouses, pulse-100;



systolic noise is above all auscultative points. In blood: E- $3,3 \times 10^{12}/l$ , Hb-90 g/l, CI-0,7, L- $9,8 \times 10^9/l$ , hypochromia of erythrocytes, anisocytosis. What reason of origin of systolic noise:

- A. Disturbance of synchronousness of work of valvular apparatus
- B. Defeat of myocardium of hypoxic character
- C. \*Acceleration of intracardiac blood stream in conditions of decrease of blood viscosity
- D. Acceleration of intracardiac blood stream in conditions of increase blood viscosity
- E. Increase of minute volume of blood

The Sick G., 50 years old, complains on weakness, dizziness. At examination: skin and mucous are subicteric, liver +4 sm, dense, painful, spleen +8 sm, dense. In blood test: E- $2,4 \times 10^{12}/l$ , Hb-84 g/l, reticul-25%, L- $7,0 \times 10^9/l$ , e-3%, r/n-6%, s/n-62%, l-22%, m-6%; blood sedimentation-30 mm/h; osmotic resistance of erythrocytes is reduced, maintenance of bilirubin of blood is increased due to indirect, reaction on urobilin is acutely positive, the Coombs' test is positive. What diagnosis is the most credible:

- A. Minkovsky – Shoffar's disease
- B. Rotor disease
- C. Night hemoglobinuria
- D. \*Autoimmune hemolytic anemia
- E. Gilbert's disease

The patient D., 63 years old, complains on feeling of overfill in epigastrium, nausea, belch after meal, dyspnea. In blood test: E- $2,0 \times 10^{12}/l$ , Hb-100 g/l, hyperchromia, macrocytosis. At FGDS there are signs of gastritis, at Ph-metry - achilia. What is the most credible reason of development of anemic syndrome:

- A. \*Production of antibodies to gastromucoprotein
- B. Disturbance of synthesis of hemoglobin
- C. Disturbance of synthesis of erythropoietin
- D. Disturbance of suction of iron
- E. Increased charges of iron

The 30 years old woman entered clinic with complaints on nasal and uterine bleeding. In the anamnesis: viral infection 2 weeks ago. At examination: on the skin of trunk and extremities - bruises. In blood test: E- $2,8 \times 10^{12}/l$ , Hb-90 g/l, thrombocyt - $25,0 \times 10^9/l$ , L- $8,8 \times 10^9/l$ , leukocytar formula without changes. Blood sedimentation-30 mm/h, bleeding time by Dyuke is 13 minutes. The sick must appoint:

- A. Transfusion of thromboconcentrate
- B. Transfusion of packed red cells
- C. Transplantation of bone marrow
- D. Antihemophil immunoglobulin
- E. \*Glucocorticoids

The 39 years old man marks weakness, palpitation. Objectively: t of body -  $38,8^{\circ}C$ , skin and white of the eyes are icteric, liver +3 sm, spleen +5 sm. In blood test: E- $3,2 \times 10^{12}/l$ , Hb-90 g/l, CI-0,9, reticul-8%, maximal osmotic resistance of erythrocytes -0,48, general bilirubin-76  $\mu\text{mol}/l$ , indirect-63  $\mu\text{mol}/l$ . What additional research is expedient for clarification of diagnosis:

- A. Activity of glyco-6-phosphat-dehydrogenase
- B. Definition of transaminases
- C. Bilious pigments of urine
- D. \*The Coombs' test
- E. Markers of viruses of hepatitis

At the sick O., 23 years old, who suffers on hemophilia A, extraction of tooth is planned. Introduction of what medical preparation with the purpose of providing hemostasis is necessary to conduct before and after operation?

- A. \*Cryoprecipitate
- B. Fresh frozen plasma
- C. Aminocapron acid
- D. Vikasol
- E. Ascorbic acid

The sick N., 22 years old, reduced feed, vegetarian, appealed to policlinic with complaints on perversion of smell, taste, angular cheilitis. At examination: expressed bright blue color of white of the eyes. After laboratory research iron deficiency anemia was diagnosed. What clinical syndrome takes advantage at the patient:

- A. \*Sideropenic
- B. Anemic
- C. Heart failure
- D. Metabolic intoxication
- E. Myelodysplastic

The patient I., 52 years old, appealed to district doctor with complaints on weakness, cough with mucous expectoration, weight loss (10 kg during 4 months). Objectively: t of body - 37,5°C, increased supraclavicular and neck lymphatic knots are palpated from both sides, there are harsh breathing and dry rales above lungs, pulse-112, AP-110/70; In blood - lymphocytosis (80%). Choose subsequent tactic of district doctor:

- A. \*To direct the patient to hematologist
- B. To appoint antiinflammatory therapy
- C. To direct the patient to oncologist
- D. To conduct subsequent ambulatory inspection of patient (R – graphy of organs of pectoral cavity, computed tomography, biochemical blood tests)
- E. To appoint desintoxicative and symptomatic therapy

At the patient, suffering on ischemic heart disease, who used aspirin, weakness, dizziness, more frequent pain in heart appeared. At examination: pale, AP-100/60, heart rate-100, E-2,6\*10<sup>12</sup>/l, Hb-100 g/l, CI-0,8; L-5,8\*10<sup>9</sup>/l, T-288\*10<sup>9</sup>/l, iron of blood serum-11,0 mkmol/l. What disease stipulates unstable stenocardia:

- A. \*Posthemorrhagic anemia
- B. Hypertonic illness
- C. Myocarditis
- D. B12 deficiency anemia
- E. Hemolytic anemia

The sick K., 50 years old, complains on decline of appetite, nightly perspiration, discomfort in stomach, weight loss. Objectively: pallor of skin, hepatosplenomegaly. In blood test there are anemia, leukocytosis with change of leukocytar formula to the left, bazophil – eozinophil association. What result of research confirms the previous diagnosis:

- A. \*Presence of the Philadelphia chromosome
- B. Botkin – Gumpercht shadows
- C. Increase level of alkaline phosphatase
- D. Decrease of cyancobalamin
- E. Total hyperplasia of bone marrow with megacariocytosis

The patient C., 28 years old, complains on undulating fever, perspiration. Objectively: pallor of skin, lymphatic knots are mobile, densely elastic, by the diameter of 1-2 sm, not painful, not connected with skin. In blood: E- $3,0 \cdot 10^{12}/l$ , Hb-100 g/l, L- $14 \cdot 10^9/l$ , change of formula to the left, T- $280 \cdot 10^9/l$ , blood sedimentation-37 mm/h. What method of research it follows to use for confirmation of diagnosis:

- A. \*Biopsy of lymphatic knot
- B. Sternal puncture
- C. Biopsy of muscles
- D. Sciagraphy of organs of thorax
- E. Lumbar puncture

The sick, 40 years old, hospitalized in gynaecological separation with uterine bleeding. Objectively: skin is pale with superficial hemorrhages in the area of trunk and extremities. Blood test: E- $2,6 \cdot 10^{12}/l$ , Hb-80 g/l, L- $4,2 \cdot 10^9/l$ , e-3%, r/n-4%, s/n-58%; l-30%, m-5%, thromb- $50 \cdot 10^9/l$ . Define the type of hemorrhage at this sick :

- A. Petechia-macular
- B. Hematomal
- C. \*Mixed
- D. Vasculit-purpural
- E. Angiomatosal

The sick T., 28 years old, complains on weakness, dizziness, yellowness of skin. Objectively: yellowness of skin, liver +3 sm, lower pole of spleen is palpated. In blood test: anemia, reticulocytosis, leukocytosis with change of leukocytar formula to promyelocytes. Autoimmune hemolytic anemia is suspected. Choose correct, in relation to the indicated disease, affirmation:

- A. \*Diagnosis is confirmed by the positive Coombs` test
- B. Growth of level of direct bilirubin is characteristic
- S. Changes of structure of erythrocytar membrane lie in basis of disease
- D. Hypoplasia of red link in trepanobiopate
- E. Increase of level of alkaline phosphatase

At the sick O., 19 years old, on the 7 day of treatment concerning acute rheumatic fever, yellowness of skin appeared, level of hemoglobin went down, level of reticulocytes and indirect bilirubin rose. The Coombs` test gave positive result. What medication is more credible entail appearance of medicine-induced hemolytic anemia:

- A. Natrii benzilpenicilini
- B. Diclophenac
- S. \*Chlorochin
- D. Prednizolon
- E. Ascorbin acid

The patient G., 18 years old, complains on periodic appearance of icteric colouring of skin, heavy feeling in the left subcostum. Objectively: lymphatic knots are not increased, spleen +3 sm. Blood test: E- $2,7 \cdot 10^{12}/l$ , Hb-84 g/l, CI-0,96, reticul-18%, microspherocytosis. Indirect bilirubin-38 mkmol/l. Your diagnosis:

- A. \*Minkovsky – Shoffar`s anemia
- B. Autoimmune hemolytic anemia
- C. Sideroachrestic anemia
- D. Hypoplastic anemia
- E. B12 deficiency anemia

The sick G., 42 years old, suffers on menorrhagia during three years. There is a exacerbation of chronic pancreatitis as pain in the left subcostum, diarrhea during last two weeks. In blood test there is moderate hypochromic anemia, iron of blood serum – 7,2 mkmol/l. What is necessary for correction of anemia:

- A. \*Preparations of iron parenteral
- B. Preparations of iron per os
- C. Transfusion of packet red cells
- D. Anabolic hormones
- E. Vitamins of group B

The patient A., 62 years old, treats oneself at dermatologist during last two years, concerning itch of skin, which increases after taking a bath. At examination: face of red color, liver is increased - (+4 sm), spleen - (+5 sm). Blood test: E-7,1\*10<sup>12</sup>/l, Hb-210 g/l, L-12,5\*10<sup>9</sup>/l, change of formula to the left, thromb-525\*10<sup>9</sup>/l, blood sedimentation 1 mm/h. Hematocrit-72%. Your diagnosis:

- A. Cirrhosis of liver
- B. Acute erythromyelosis
- C. Chronic myeloleukemia
- D. Subleukemoid myelosis
- E. \*Erythremia

The patient K., 66 years old, delivered in hospital in unconscious condition. Last half a year complains on weakness, stuffiness, dizziness. At examination: skin of lemon colour, tachycardia, systolic noise above all auscultative points, AP-80/60, liver is increased (+3 sm), spleen is palpated. Blood test: E-1,0\*10<sup>12</sup>/l, Hb-45 g/l, blood sedimentation-50 mm/h, glucose of blood-4,2 mmol/l, creatinine of blood-105 mkmol/l, bilirubin of blood-32,6 mkmol/l due to indirect, negative wave T in V1-V4. Your previous diagnosis:

- A. Diabetic coma
- B. Hepatic coma
- C. Uremic coma
- D. \*Anemic coma
- E. Infarct of myocardium, cardiogenic shock.

The 57 years old woman marks weakness, dyspnea at walking, pain in the left subcostum. At examination: liver +3 sm. In blood test: E-1,2\*10<sup>12</sup>/l, Hb-56 g/l, CI-1,4, macrocytosis, L-2,5\*10<sup>9</sup>/l, e-1%, r/n-6%, s/n-51%, l-38%, m-4%, reticul-0,1%, T-100,0\*10<sup>9</sup>/l, blood sedimentation-40 mm/h. What changes it follows to expect in punctate of bone marrow:

- A. Hyperplasia of erythroid link
- B. Increase of number of sideroblasts
- C. \*Predominance of megaloblasts
- D. Presence of blastic cells
- E. Predominance of lymphoid fabric

The 58 years old woman complains on causeless appearance of bruises on skin, hemorrhage of gums. Objectively: skin is pale with numerous hemorrhages of different remoteness, lymphatic knots are not increased, pulse-100, AP-110/70. In blood test: E-3,0\*10<sup>12</sup>/l, Hb-92 g/l, CI-0,9, anisocytosis, poikilocytosis, L-10,0\*10<sup>9</sup>/l, e-2%, r/n-12%, s/n-68%, l-11%, m-7%, blood sedimentation-12 mm/h. What laboratory index it is expedient to define for clarification of diagnosis:

- A. Osmotic resistance of erythrocytes
- B. Content of reticulocytes
- C. Clotting time of blood

- D. \*Content of thrombocytes
- E. Fibrinogen

The 65 years old woman complains on dizziness, dyspnea in rest, pain in epigastral area, which increases after meal in horizontal position. At examination hiatal hernia is found out. Objectively: pallor of skin and mucosae, systolic noise above all points. In blood: E- $2,9 \times 10^{12}/l$ , Hb-84 g/l, CI-0,7, reticul-0,8%, L- $3,9 \times 10^9/l$ , T- $200 \times 10^9/l$ , blood sedimentation-25 mm/h, anisocytosis, poikilocytosis. Your diagnosis:

- A. \*Chronic posthemorrhagic anemia
- B. Hemolytic anemia
- C. Sideroachrestic anemia
- D. B12 deficiency anemia
- E. Aplastic anemia

The patient L., 36 years old, complains on weakness, dizziness. He is ill for a few months. Worsening of condition is connected with using of vitamin B1. Strict vegetarian. In the anamnesis: began to work on poultry factory 9 months ago. Objectively: skin is pale, liver and spleen are not increased. At FGDS - nonatrophical gastritis, Hp-negative. In blood: E- $2,4 \times 10^{12}/l$ , Hb-89 g/l, iron of blood serum-7,3 mmol/l. At colonoscopy-norm. What is necessary for prophylaxis of this condition:

- A. \*To eat meat
- B. To change work.
- C. To use pancreatine
- D. Not to use vitamin B1
- E. Treatment with vitamin B12

The 54 years old sick complains on weakness, numbness of finger-tips, shaky step. Objectively: pulse-100, systolic noise above the apex of heart, AP-110/70, language of bright red. In blood test: E- $2,3 \times 10^{12}/l$ , Hb-58 g/l, reticul-0,2%, CI-1,3, macrocytosis, L- $2,8 \times 10^9/l$ , blood sedimentation-40 mm/h, T- $120 \times 10^9/l$ . What pathogenetic factor conducts in development of anemia:

- A. Tumor oppression of normal blood formation
- B. Intravassal hemolysis
- C. Disturbance of synthesis of hemoglobin
- D. Disturbance of transport of iron from reticuloendothelial depot
- E. \*Disturbance of differentiation of erythroid cells

The sick T., 37 years old, complains on general weakness, dyspnea, palpitation. Objectively: satisfactory feed, skin is pale, pulse-106, AP-100/70. In blood test: E - $3,2 \times 10^{12}/l$ , Hb-88 g/l, CI-0,7; reticul-0,8%, L- $4,7 \times 10^9/l$ , e-2%, r/n-3%, s/n-64%, l-26%, m- 5%, blood sedimentation-15 mm/h., iron of blood serum-4,3 mmol/l, general protein-70 g/l. Deficit of what element stipulated the origin of disease:

- A. Protein
- B. Ca
- C. Vitamin B12
- D. \*Iron (Fe<sup>++</sup>)
- E. Folic acid 41

The 45 years old man complains on general weakness, dizziness. In the anamnesis: there is hemorrhoid during 10 years, which bleeds periodically. Objectively: temperature of body-37,2°C, skin is pale, pulse-100, AP-90/70. In blood test: E- $3,8 \times 10^{12}/l$ , Hb-90 g/l, CI-0,7. What tactic of treatment:

- A. Preparations of iron parenteral
- B. \*Preparations of iron per os
- C. To appoint vitamin B12
- D. To appoint transfusion of packet red cells
- E. To recommend daily use of liver

The sick, 18 years old, entered hematological separation with complaints on headache, general weakness, absence of appetite. Objectively: t-38°C, skin is pale, packages of lymphatic knots on neck by size to 1 sm, liver +2 sm, spleen +3 sm, moderately painful. In blood test: E-2,9\*10<sup>12</sup>/l, Hb-98g/l, L-32\*10<sup>9</sup>/l, blast-31%, s-28%, l-39%, m-2%, T-40,0\*10<sup>9</sup>/l, blood sedimentation-46 mm/h. What disease can be suspected at the patient:

- A. Undifferentiated leukemia
- B. Acute myeloblastic leukemia
- C. Chronic lympholeukemia
- D. Chronic myeloleukemia
- E. \*Acute lymphoblastic leukemia

The 38 years old woman complains on twinkling of "spots" before eyes, dizziness. At examination: pallor of skin, tachycardia, systolic noise above the apex of heart. In blood: E-3,3\*10<sup>12</sup>/l, Hb-90 g/l, CI-0,7, L-9,8\*10<sup>9</sup>/l, e-2%, r/n-3%, s/n-70%, l-24%, m-1%, blood sedimentation-25 mm/h, hypochromia of erythrocytes, iron of blood serum-5,2 mkmol/l. At setting of preparations of iron it is necessary to remember, what part of digestive channel suction of iron is in:

- A. In stomach
- B. \*In upper department of thin bowel
- C. In thick intestine
- D. In mouth cavity
- E. In every department of intestinal tract

The sick S., 37 years old, appealed to doctor with complaints on considerable weakness, dyspnea at walking, prolonged menstruations. Objectively: skin is pale, dry, nails are fragile, moderate tachycardia, cardiac tones clear, AP 90/60. Doctor diagnosed iron deficiency anemia. What clinical syndromes can be at the sick:

- A. Bright blue whites of the eyes
- B. Constant subfebrile temperature
- C. Disturbance of taste and smell
- D. Angular cheilitis
- E. \*All answers are true

The sick S., 39 years old, appealed to doctor with complaints on considerable weakness, dyspnea at walking. There are prolonged menstruations during many years. Objectively: skin is pale, dry, nails are fragile, moderate tachycardia, cardiac tones clear, AP 90/60. Doctor diagnosed iron deficiency anemia. What colour index must be at this disease:

- A. 0,2-0,3
- B. 0,4-0,5
- C. \*0,5-0,6
- D. 0,8-0,9
- E. 1,2-1,3

The patient S., 57 years old. At examination widespread osteoporosis of vertebrae is found out. In blood test: E-3,4\*10<sup>12</sup>/l, Hb-108 g/l, T-145,0\*10<sup>9</sup>/l, L-5,6x10<sup>9</sup>/l, l-27%, r/n-7%, s/n-57%, m-5%,

plasma cells-24%, blood sedimentation-55 mm/h. In analysis of urine: protein-0,264 g/l. General protein of blood-108 g/l. What research must be conducted for confirmation of diagnosis:

- A. Definition of circulating immune complexes
- B. Definition of level of parathyroid hormone
- C. \*Sternal puncture
- D. Reaction on peroxidase in neutrophils
- E. Biopsy of kidneys

The sick M., 18 years old, hospitalized with bleeding from incised wound on palm, which lasts during 2 days. At examination: skin is pale, knee and elbow joints are deformed, motions in them are limited. Laboratory research: thromb-400,0x10<sup>9</sup>/l, bleeding time by Dyuke-3 min., clotting time of blood by Li-Uayt-20 min. The prophylaxis of what complication is needed to conduct:

- A. Pathological fractures
- B. \*Posthemorrhagic anemia
- C. Thromboses
- D. Aplastic anemia
- E. Infecting of hematoma

The 66 years old woman marks weakness, pain in bones, and appetite loss during 4 months. Treated oneself at neurologist and had completed course of manual therapy. In blood test: anemia, general protein-112 g/l, blood sedimentation-68 mm/h; there is proteinuria (6,6 g/day) in analysis of urine. There are defects of bone fabric of rounded form on sciagram of skull. What is the most reliable diagnoses:

- A. \*Multiple myeloma
- B. Metastases of tumor in bones
- C. Systemic osteoporosis
- D. Amyloidosis of kidneys
- E. Chronic glomerulonephritis, chronic renal failure

The sick G., 62 years old, hospitalized to the reanimation in coma. In blood test: Hb-38 g/l, E-0,7\*10<sup>12</sup>/l, CI-1,3, marocytosis, reticul-0,2%, moderate leukopenia and thrombocytopenia. In bone marrow: megaloblastic type of blood formation. Name medicine for effective treatment of the sick:

- A. Feroplex
- B. Prednizolon
- C. \*Cyancobalamin
- D. Follic acid
- E. Vitamin B6

The sick D., 38 years old, appealed with complaints on dyspnea at walking, imperative desires for urination, metrorrhagia. Objectively: skin is pale, dry, nails are fragile, moderate tachycardia, cardiac tones are clear. In blood test: E-3,0\*10<sup>12</sup>/l, Hb-60 g/l, CI-0,6, aniso- and poikilocytosis. It is necessary to apply in treatment:

- A. Prednizolon
- B. Cyancobalamin
- C. Transfusion of native plasma
- D. Hydrochloridi piridoxini
- E. \*Tardiferon

The patient N., 18 years old, complains on perspiration, chill, weight loss. Objectively: t of body – 39,1C, there are two lymphatic knots on neck on the left, which are palpated by diameter 2,0 sm, not

mobile, not connected with surrounding fabrics. At fluorography increased lymphatic knots of roots of lungs are found. In blood: E- $3,2 \cdot 10^{12}/l$ , Hb-114 g/l, CI-1, L- $11,4 \cdot 10^9/l$ , e-7%, r/n-10%, s-71%, l-7%, m-5%, blood sedimentation-41 mm/h. Lymphogranulomatosis of II B stage, syndrome of tumor intoxication is diagnosed. Your tactic of treatment:

- A. \*Polychemo- and X – ray therapy
- B. X – ray therapy
- C. Hemotransfusion
- D. Plasmapheresis
- E. Hormone therapy, cytostatic preparations

At the patient with hemophilia there was pneumocystic pneumonia, coefficient Tx/Tc<N, on the background of general lymphadenopathy and recurrent candidial stomatitis. What is the most credible reason of manifestation of opportunistic infections:

- A. \*HIV-infection
- B. Age – dependent transit immunosuppression
- C. Chronic disease digestive system
- D. Hemophilia
- E. Social-domestic confusions

The patient O., 65 years old, who was observed at dermatologist during few years concerning obtrusive itch of skin, headache appeared lately. Objectively: redder-cyanotic colour of face, AP-170/100. In blood test: E- $7,5 \cdot 10^{12}/l$ , Hb-220 g/l, L- $7,8 \cdot 10^9/l$ , T- $264,0 \cdot 10^9/l$ , blood sedimentation-1 mm/h. What method of treatment can be appointed:

- A. \*Exsanguination
- B. Therapy with leukeran
- C. Roentgenotherapy of spleen
- D. Roentgenotherapy of bone marrow
- E. Treatment of hypertension with diuretics

At the patient on chronic lympholeukemia general weakness increased, yellowness of skin and white of the eyes appeared. In blood test: Hb-65 g/l, reticul-10%, general bilirubin-80,3 mkmol/l, indirect-65,3 mkmol/l, elevated level of urobilin, the direct Coombs' test is positive. What pathogenetic mechanism entailed deepening of anemia:

- A. Myelofibrosis
- B. Oppressing of erythroid link of hemopoiesis
- C. \*Autoimmune hemolysis
- D. Deficit of folic acid
- E. Disturbance of porfirin metabolism

At the patient K., who was taking aspirin concerning ischemic heart disease for a long time, petechias and ecchymoses began to appear. At inspection bleeding time is increased. The hematologist connected these disturbances with antithrombotic effect of aspirin and recommended to repeat research of bleeding time after abolition of aspirin. What time action of aspirin is saved after his abolition:

- A. 8-10 hours
- B. 1-2 days
- C. 3-4 days
- D. \*5-10 days
- E. More than two weeks



At the patient K., 67 years old, with hepatolienal syndrome during 2 years, increase of peripheral lymphatic knots appeared, which at palpation had soft consistency, mobile. In blood test: L-120,0x10<sup>9</sup>/l, r/n-1%, s/n-9%, l-87%, m-3%, blood sedimentation-40 mm/h. Name measures of general character, which it is expedient to recommend:

- A. Regimen of labour and rest
- B. Norm maintenance of vitamins in meal
- C. Insulations and overheats are forbidden
- D. To avoid contact with patients with flu
- E. \*All answers are true

The sick T., 32 years old, reduced feed, vegetarian, appealed to policlinic with complaints on dyspnea, dizziness. At examination: skin is pale, dry, angular cheilitis. After laboratory research iron deficiency anemia was diagnosed. What is typical for iron deficiency anemia:

- A. Hypotension
- B. Tachycardia
- C. \*Disturbance of taste
- D. Dysphagia
- E. Retrosternal pain

The 35 years old woman complains on weakness, dizziness. Objectively: pallor of skin, there are hemorrhages on the skin of forearms and thighs, pulse-100, AP-90/60, liver and spleen are not increased. In blood test: E-1,6\*10<sup>12</sup>/l, Hb-52 g/l, CI-0,8, reticul-0,1%, T-40,0\*10<sup>9</sup>/l, L-2,1\*10<sup>9</sup>/l, e-1%, r/n-1%, s/n-45%, l-51%, m-2%, blood sedimentation-46 mm/h. Reasons of development of this anemia are marked, except:

- A. Viral infections
- B. \*Blood loss
- C. Hereditary factor
- D. Chemical matters
- E. Radiation

The sick D., 33 years old, complains on general weakness, fragility of nails, hair fall. In the anamnesis: considerable and prolonged menstruations. Objectively: pallor of skin, heart rate – 110, AP-90/60. What is not characteristic for this sick:

- A. Decrease of level of hemoglobin
- B. Low colour index
- S. Anisocytosis
- D. Decreased level of ferritin of blood
- E. \*Leukocytosis

At the 23 years old man after taking of analgin concerning headache, tormina, pain in knee-joints appeared. Objectively: skin is pale, microspotal rash on the skin of shins, at palpation thick intestine is painful. In blood of the patient the indicated changes take place, except:

- A. Neutrophil leukocytosis
- B. \*Monocytosis and lymphopenia
- C. Increased blood sedimentation
- D. Elevated level of fibrinogen
- E. Thrombocytopenia

At the young woman after viral infection tormina, diarrhea with admixtures of blood, increase of temperature of body appeared. Objectively: t of body- 37,5C, skin is pale, microspotal rash on the

skin of shins, at palpation thick intestine is painful. At inspection in analyses of urine pathology is found out. The urinary syndrome at this pathology is characterized with all signs, except:

- A. Macro- or microhematuria
- B. Proteinuria
- C. \*Arterial hypotension
- D. Cylindruria
- E. Development of renal failure

The patient, 30 years old, entered hospital with bleeding from incised wound on palm, which lasted for 2 days. Considerable bleeding at wounding is observed from childhood. Skin is pale, knee and ankle joints are increased, deformed. Laboratory researches: thrombocytes- $220 \times 10^9/l$ , clotting time by Li-Uayt 20 minutes. With what the disease is linked at the patient:

- A. Increased destruction of thrombocytes
- B. Deficient formation of thrombocytes
- C. Inflammatory defeat of vessels
- D. \*Deficit of VIII factor of blood clotting
- E. Decreased level of fibrinogen

The sick G., 34 years old, appealed with complaints on considerable weakness, dyspnea at walking. Objectively: skin is pale, dry; nails are fragile, moderate tachycardia, cardiac tones clear. In blood test: Hb-60 g/l, E- $2,8 \times 10^{12}/l$ , CI-0,7, aniso- and poikilocytosis. What can be reason of development of anemia at the sick:

- A. Menorrhagia
- B. Elementary insufficiency of iron
- C. Hemorrhoid
- D. Pregnancy
- E. \*All answers are true

The youth, 18 years old, hospitalized with complaints on nose bleeding, which did not succeed to be stopped. The patient is ill from childhood. Objectively: knee-joints are increased, deformed, heart rate-90, AP-105/70. In blood test: E- $3,0 \times 10^{12}/l$ , Hb-105 g/l, CI-0,7, L- $4,6 \times 10^9/l$ , T- $220,0 \times 10^9/l$ , blood sedimentation-16 mm/h. Clotting time by Li-Uayt-27 min. For this disease such complications are characteristic, except:

- A. Posthemorrhagic anemia
- B. Squeezing of fabrics by hematoma
- C. Infection of hematoma
- D. Renal colic
- E. \*Polyuria

At the 22 years old man after viral infection tormina, pain in knee-joints, increase of temperature of body appeared. Objectively: skin is pale, microspotal rash on the skin of shins, at palpation thick intestine is painful. In analysis of urine pathology is found out. The renal syndrome at this disease is characterized with all signs, except:

- A. Macro- or microhematuria
- B. Proteinuria
- C. Cylindruria (hyaline)
- D. Cylindruria (granular)
- E. \*Leukocyturia

The patient C., 50 years old, complains on weakness, dizziness, heavy feeling in the upper half of stomach, paresthesia in finger-tips of feet. Objectively: yellowness of skin, language of raspberry color, hepatomegaly. In blood: Hb-90 g/l, E-2,3\*10<sup>12</sup>/l, reticul-0,2%; CI-1,2, macrocytosis, Jolly's bodies. What disease can lead to the resulted state:

- A. Cancer of stomach
- B. Resection of stomach
- C. Atrophy of glands of fundal channel
- D. Diseases of bowels
- E. \*All answers are true

The sick S., 37 years old, appealed to doctor with complaints on considerable weakness, dyspnea at walking. In the anamnesis: prolonged menstruations during many years. Objectively: skin is pale, dry, nails are fragile, moderate tachycardia, cardiac tones clear, AP 90/60. Doctor diagnosed iron deficiency anemia. What does not characterize the picture of blood at iron deficiency anemia:

- A. Decreased level of hemoglobin
- B. Low colour index
- C. Microanisocytosis
- D. Decreased level of iron in blood serum
- E. \*Leukocytosis

The 54 years old woman complains on weakness, numbness of finger-tips, shaky step, heartburn in language. Objectively: skin is pale with icteric tint, pulse-100, systolic noise above the apex of heart, language of bright red. In blood test: E-2,3\*10<sup>12</sup>/l, Hb-58 g/l, reticul-0,2%, CI-1,3, macrocytosis, L-2,8\*10<sup>9</sup>/l, T-120,0\*10<sup>9</sup>/l, blood sedimentation-40 mm/h. What treatment you will appoint to the sick:

- A. Transfusion of packet red cells
- B. Transfusion of blood
- C. \*Cyancobalamin hypodermic
- D. Preparations of iron per os
- E. Introduction of the washed erythrocytes

The sick T., 32 years old, reduced feed, vegetarian, appealed to policlinic with complaints on dyspnea, dizziness. At examination: skin is pale, angular cheilitis. After laboratory research iron deficiency anemia was diagnosed. Dietary nutrition was recommended. What product contains less of hemic iron:

- A. Meat
- B. Liver
- C. Fish
- D. Beans
- E. \*Bread

At the patient L., 67 years old, with hepatolienal syndrome during 2 years, increase of peripheral lymphatic knots is marked. In blood test: L-120,0\*10<sup>9</sup>/l, r/n-1%, s/n-9%, l-87%, m-3%, blood sedimentation-40 mm/h. What sign lymphatic knots do not have at this pathology:

- A. Soft consistency
- B. Not connect with each other
- C. Indolence at palpation
- D. Skin above them is not changed
- E. \*Acutely painful

At the patient K., 18 years old, abundant bleeding began after extraction of tooth. In the anamnesis: haemophilia A. What laboratory signs do you expect to get, except:

- A. \*Change of clotting time of blood
- B. Change of prothrombin time
- C. Change of thrombin time
- D. Change of bleeding time
- E. Thrombocytopenia

The patient D., 20 years old, complains on arthralgias. Objectively: t of body-37,5C, hemorrhagic rash on the skin of shins, knee-joints are slightly swollen. What laboratory changes are characteristic for this state:

- A. Neutrophil leukocytosis
- B. \*All answers are true
- C. Increased blood sedimentation
- D. Elevated level of fibrinogen
- E. Thrombocytopenia

The 42 years old man is hospitalized to the infectious separation with the diagnosis of follicular angina. At examination: temperature of body 38,8C, skin is pale, pulse 116, AP 90/60. In blood test: E-2,1\*10<sup>12</sup>/l, Hb-80 g/l, CI-0,8, L-38,0\*10<sup>9</sup>/l, blast-38%, s/n -16%, l-44%, m-2%, T-25,0\*10<sup>9</sup>/l, blood sedimentation-46 mm/h. Leukemic failure is:

- A. Decrease of number of thrombocytes
- B. Appearance of blastic cells
- C. \*Absence of transit forms
- D. Lymphocytosis
- E. Increase of number of leukocytes

The sick A., 37 years old, complains on general weakness, dyspnea. Objectively: skin is pale, tachycardia. In blood test: E-3,2\*10<sup>12</sup>/l, Hb-70 g/l, CI-0,7, reticul-0,8%, L-4,7\*10<sup>9</sup>/l, e-2%, r/n-3%, s/n-64%, l-26%, m-5%, blood sedimentation-15 mm/h, iron of blood serum-4,3 mkmol/l. Doctor appointed preparations of iron. In what period of time do you expect renewal of laboratory indexes at the influence of iron:

- A. 2 weeks
- B. 1 month
- C. \*2 months
- D. 3 months
- E. 4 months

At the 30 years old patient with polyarthralgias, subfebrile temperature of body, rash on skin, doctor suspected hemorrhagic vasculitis. For the skin syndrome at hemorrhagic vasculitis characteristic is all, except:

- A. Rash on the skin of extremities
- B. Hemorrhagic rash on buttocks
- C. Symmetrical location of rash
- D. \*Vast hemorrhages on skin with areas of necrosis
- E. Rash overpeers above skin and does not disappear at pressure

The sick K., 58 years old, entered clinic with complaints on pressing pain in the left half of thorax, which arose up first. At examination: heart rate-82, AP-180/110. At research of blood: E-6,9\*10<sup>12</sup>/l, Hb-220 g/l, CI-0,9; reticul-0,2%, T-450\*10<sup>9</sup>/l, L-12,9\*10<sup>9</sup>/l, youn-1%, r/n-2%, s-75%, l-14%, m-

8%, blood sedimentation-2 mm/h, hematocrit-70%. On ECG: signs of hypertrophy of left ventricle. Name the credible mechanism of pain:

- A. \*Disturbance of microcirculation due to increase of blood viscosity
- B. Atherosclerosis of coronal arteries
- S. Osteochondrosis, thoracalgia
- D. Increase of synthesis of procoagulants
- E. Arterial hypertension

The patient L., 35 years old, vegetarian, appealed to policlinic with complaints on dyspnea, dizziness. In the anamnesis: passion to unusual smells: petrol, acetone. At examination: skin is pale, angular cheilitis. After laboratory research iron deficiency anemia was diagnosed. Dietary nutrition was recommended. Best of all iron is mastered from:

- A. \*Veal
- B. Eggs
- C. Beans
- D. Fruit
- E. Rice

The sick A., 37 years old, complains on general weakness, dyspnea, swallowing of meal is embarrassed. Objectively: skin is pale, tachycardia. In blood test: E- $3,2 \cdot 10^{12}/l$ , Hb-70 g/l, CI-0,7, reticul-0,8%, L- $3,2 \cdot 10^9/l$ , e-2%, r/n-3%, s/n 64%, l-26%, m-5%, blood sedimentation-25 mm/h, iron of blood serum-4,3 mkmol/l. Doctor appointed preparations of iron. Suction, mastering and metabolism of iron depends on microelements:

- A. Cobalt
- B. Copper
- C. Zinc
- D. Manganese
- E. \*All answers are true

The sick T., 59 years old, complains on pain in the left subcostum, general weakness, weight loss. Objectively: t of body - 37,5C, skin is pale, liver +4 sm, painless, dense, lower edge of spleen is at the level of umbilicus. In blood test: E- $3,0 \cdot 10^{12}/l$ , Hb-90 g/l, CI-0,9, L- $540,0 \cdot 10^9/l$ , promyel-10%, myeli-13%, youn-11%, r/n-28%, s/n-22 %, e-5%, bas-4%, l-4%, m-3%, T- $345,0 \cdot 10^9/l$ , blood sedimentation-58 mm/h. In the terminal stage of the adopted state there is all indicated, except:

- A. Increase of myelocytes and promyelocytes in blood
- B. Appearance of blastic fabrics
- C. Normocytosis, anemia
- D. Thrombocytopenia
- E. \*Lymphopenia

The patient K., 64 years old, suffers on chronic myeloleukemia for 4 years. He complains on pain in the left half of stomach, weight loss, and subfebrile temperature. His state is considered, as the unfolded stage of disease. In this stage all transferred is observed, except:

- A. Hyperleukocytosis –  $200-400 \cdot 10^9/l$
- B. Change of leukocytar formula to the left to myelocytes and promyelocytes
- C. Moderate expressed anemia
- D. Thrombocytosis
- E. \*Lymphocytosis

At the 25 years old man after viral infection pain in knee-joints, increase of temperature of body appeared. Objectively: skin is pale, microspotal rash on the skin of shins, AP-150/100. In analysis of urine pathology as proteinuria – 2,5 g/l, hematuria - erythrocytes on all eyeshot is found out. What pathogenetic treatment you will appoint:

- A. Fraxiparin
- B. Curantil
- C. Cyclophosphan
- D. Lizinopril
- E. \*All answers are true

A 47 y.o. woman complains of having paroxysmal headaches for the last 5 years. The pain is one-sided, intense, localised in frontal region of head, accompanied by nausea and stomach discomfort, begins one of a sudden. Onset is usually preceded by vision reduction. Anamnesis gives evidence of periodical AP rise, but at the moment the woman doesn't take any medicines. Inbetween the onsets of headache her state is satisfactory. Objectively: high-calorie diet (body weight index - 29), AP- 170/95 mm Hg. Neurologic state has no peculiarities. What is the most probable diagnosis?

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

A 7 y.o. boy suddenly felt pain in his right knee, it became edematic. The day before he took part in a cross-country race. Family anamnesis has no data about hemophilia and bleeding sickness. Objectively: body temperature is 37,5oC. The knee is painful, hot to the touch, edematic with local tissue tension over it. Blood count: Hb- 123 g/L, leukocytes - 5,6\*10<sup>9</sup>/L, thrombocytes - 354\*10<sup>9</sup>/L, prothrombin time - 12 seconds (normally 10-15 seconds), partly activated thromboplastin time - 72 seconds (normally 35-45 seconds). Hemorrhage time is normal, VIII:C factor is 5% of norm. What is the most probable diagnosis?

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

On the 3rd day after the acute anterior myocardial infarction a 55 y.o. patient complains of dull ache behind his breast bone, that can be reduced by bending forward, and of dyspnea. Objectively: AP- 140/180 mm Hg, heart sounds are dull. ECG results: atrial fibrillation with frequency of ventricular contractions at the rate of 110/min, pathological Q wave and S-T segment raising in the right chest leads. The patient refused from thrombolysis. What is the most probable diagnosis?

- A Acute pericarditis
- B Pulmonary embolism
- C Tietze's syndrome
- D Dissecting aortic aneurysm
- E Dressler's syndrome

A 54 y.o. man was admitted to the hospital with complaints of sudden intense headache in occipital region and vomiting. In the medical history: moderate arterial hypertension, the patient

was taking hydrochlorothiazide. Three days ago he consulted a therapist about intense headache that was suppressed by an analgetic. Objectively: consciousness is confused, left pupil is mydriatic. Evident photophobia and tension of neck muscles. Left-side hemiparesis with increased muscle tonus and reflexes. Body temperature is low, rash is absent. AP- 230/130 mm Hg, Ps- 50 bpm, BR- 12/min. What is your preliminary diagnosis?

- A Acute subdural hematoma
- B Myasthenia
- C Disseminated sclerosis
- D Migraine
- E Acute bacterial meningitis

A 51 y.o. woman was taken to the emergency department in convulsive status epilepticus. The first means of medical management should be:

- A Ensuring that the airway is open and the patient is oxygenating
- B Inserting a tongue blade
- C Administering an intravenous bolus of 50% dextrose
- D Injecting 5 mg of diazepam followed by a loading dose of phenytoin
- E Inducing pentobarbital coma

A 38 y.o. man complains of having occasional problems with swallowing of both hard and fluid food for many months. Sometimes he feels intense pain behind his breast bone, especially after hot drinks. There are asphyxia onsets at night. He has not put off weight. Objectively: his general condition is satisfactory, skin is of usual colour. Examination revealed no changes of gastrointestinal tract. X-ray picture of thorax organs presents esophagus dilatation with level of fluid in it. What is the preliminary diagnosis?

- A Esophagus achalasia
- B Myasthenia
- C Cancer of esophagus
- D Esophagus candidosis
- E Gastroesophageal reflux

A 35 y.o. woman consulted a doctor about occasional pains in paraumbilical and iliac region that reduce after defecation or passage of gases. Defecation takes place up to 6 times a day, stool is not solid, with some mucus in it. Appetite is normal, she has not put off weight. First such symptoms appeared 1,5 year ago, but colonoscopy data reveals no organic changes.

Objectively: abdomen is soft, a little bit painful in the left iliac region. Blood and urine are normal. What is the preliminary diagnosis?

- A Irritable bowels syndrome
- B Celiac disease
- C Crohn's disease
- D Pseudomembranous colitis
- E Dispancreatism

The physician must undertake measures for primary prophylaxis of iron deficiency anemia. Which of the following categories of patient are subject to such primary prophylactic measures?

- A Pregnant women
- B Patients after 60
- C All children
- D Patients after operation
- E Workers of industrial enterprises

A patient with unstable angina pectoris was given the following complex treatment: anticoagulants, nitrates,  $\alpha$ -adrenoblockers. However on the third day of treatment the pain still remains. Which investigation should be carried out to establish diagnosis?

- A Coronarography
- B Stress-echocardiogram
- C Test with dosed physical exercises
- D Esophageal electrocardiac stimulator
- E Myocardial scintigraphy

The 28 y.o. woman applied to doctor because of limited loss of the hair. In the anamnesis - she had frequent headache indisposition, arthromyalgia, fever, irregular casual sexual life, drug user. RW is negative. What examination must be done first?

- A Examination for HIV
- B Examination for neuropathology
- C Examination for gonorrhea
- D Examination for fungi
- E Examination for trichomoniasis

A 35 y.o. woman was admitted to thoracic surgery department with fever up to 40C, onset of pain in the side caused by deep breathing, cough with considerable quantity of purulent sputum and blood with bad smell. What is the most likely diagnosis?

- A Abscess of the lung
- B Complication of liver echinococcosis
- C Bronchiectatic disease
- D Actinomycosis of lungs
- E Pulmonary tuberculosis

A 67 y.o. patient complains of palpitation, dizziness, noise in ears, feeling of shortage of air. Objectively: pale, damp skin. Vesicular respiration, respiratory rate- 22 per min, pulse- 200 bpm, AP- 100/70 mm Hg. On ECG: heart rate- 200 bpm, ventricular complexes are widened, deformed, location of segments ST and of wave T is discordant. The wave P is not changed, superimposes QRST, natural conformity between P and QRS is not present. What kind of arrhythmia is present?

- A Paroxysmal ventricular tachycardia
- B Sinus tachycardia
- C Atrial flutter
- D Ventricular extrasystole
- E Atrial tachycardia

Male 30 y.o., noted growing fingers and facial skull, changed face. Complains of poor eyesight, weakness, skin darkening, loss of body weight. X-ray shows broadening of sella turcica, thinning of tuberculin sphenoidale, signs of increased intracranial pressure. What diagnosis can you make?

- A Adenoma of hypophysis
- B Encephalitis of truncus
- C Optico - hiasmatic arachnoiditis
- D Adrenal gland tumor
- E Tumor of pondo-cerebellar corner

A patient complains of a tormental (agonizing) cough with expectoration of up to 600 ml/daily



purulent chocolatecolor sputum with a decay smell. Onset of illness was abrupt, to-39oC, fever of irregular type. There is the area of darkening with a cavity in a center on X-ray film, with irregular contours and level of liquid. What disease is the question?

- A Gangrene of lung
- B Tuberculosis
- C Bronchiectatic illness
- D Pneumonia complicated by an abscess
- E Lobar pneumonia

A 24 y.o. patient complains of nausea, vomiting, headache, shortness of breath. He had an acute nephritis being 10 y.o. Proteinuria was found out in urine. Objectively: a skin is grey-pale, the edema is not present. Accent of II tone above aorta. BP 140/100-180/100 mm Hg. Blood level of residual N2- 6,6 mmol/L, creatinine- 406 mmol/L. Day's diuresis- 2300 ml, nocturia. Specific density of urine is 1009, albumin- 0,9 g/L, WBC- 0-2 in f/vis. RBC.- single in f/vis., hyaline casts single in specimen. Your diagnosis?

- A Chronic nephritis with violation of kidney function
- B Feochromocitoma
- C Hypertensive illness of the II degree
- D Nephrotic syndrome
- E Stenosis of kidney artery

A 33 y.o. male patient was admitted to a hospital. A patient is pale, at an attempt to stand up he complains of strong dizziness. There was vomiting like coffee-grounds approximately hour ago. BP- 90/60 mm Hg., pulse- 120 b/min. In anamnesis, a patient has suffered from ulcer of the stomach, painless form during 4 years. An ulcer was exposed at gastrofiberscopy. Your diagnosis:

- A Ulcer of stomach, complicated with bleeding
- B Ulcer of duodenum, complicated with bleeding
- C Erosive gastritis
- D Acute pleurisy
- E Acute myocardial infarction, abdominal form

A 48-year-old patient complains of heaviness in the right hypochondrium, itching of the skin. He had been treated in infectious diseases hospital repeatedly due to icterus and itch. On physical exam: meteorism, ascitis, dilation of abdominal wall veins, protruded umbilicus, spleen enlargement. What can be diagnosed in this case?

- A Liver cirrhosis
- B Cancer of the liver
- C Cancer of the head of pancreas
- D Gallstones
- E Viral hepatitis B

A 25-year-old man has facial edema, moderate back pains. His temperature is 37,5oC, BP 180/100 mm Hg, hematuria [up to 100 in v/f], proteinuria [2,0 g/L], hyaline casts - 10 in v/f., specific gravity -1020. The onset of the disease is probably connected with acute tonsillitis that started 2 weeks ago. What is the most probable diagnosis?

- A Acute glomerulonephritis
- B Acute pyelonephritis
- C Cancer of the kidney
- D Urolithiasis

E Chronic glomerulonephritis

In the development of the inflammation processes glucocorticoids reduce the level of certain most important active enzyme. It results also in the reducing of the synthesis of prostaglandins and leucotrienes which have a key role in the development of inflammation processes. What is the exact name of this enzyme?

- A Phospholipase A2
- B Arachidonic acid
- C Lipoxygenase
- D Cyclooxygenase – 1
- E Cyclooxygenase – 2

A 30 y.o. female with rheumatoid arthritis of five years duration complains of pain in the first three fingers of her right hand over past 6 weeks. The pain seems especially severe at night often awakening her from sleep. The most likely cause is?

- A Carpal tunnel syndrome
- B Atlanto-axial subluxation of cervical spine
- C Sensory peripheral neuropathy
- D Rheumatoid vasculitis
- E Rheumatoid arthritis without complication

A 19-year-old man has suffered from moderate mental retardation since childhood. The patient is illiterate, can take care of himself, do simple household work and other kinds of easy work under supervision. What does his rehabilitation [tertiary prevention] require?

- A All the above mentioned
- B Supervision of a social worker
- C Physical work under supervision
- D Supervision of relatives (if any)
- E None of the above mentioned

A 38 y.o. patient was urgently admitted to the hospital with complaints of sudden weakness, dizziness, loss of consciousness, body weight loss, nausea, vomiting, severe pain in epigastric area, diarrhea, skin hyperpigmentation. What is the most probable diagnosis?

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

An unconscious patient presents with moist skin, shallow breathing. There are signs of previous injection on the shoulders and hips. BP- 110/70 mm Hg. Tonus of skeletal muscles and reflexes are increased. Cramps of muscles of the extremities are seen. What is the most likely disorder?

- A Hypoglycemic coma
- B Hyperglycemic coma
- C Hyperosmolar coma
- D Hyperlactacidotic coma
- E Stroke

A patient was admitted to the hospital on the 7th day of the disease with complaints of high

temperature, headache, pain in the muscles, especially in calf muscles. Dermal integuments and scleras are icteric. There is hemorrhagic rash on the skin. Urine is bloody. The patient was fishing two weeks ago. What is the most likely diagnosis?

- A Leptospirosis
- B Yersiniosis
- C Salmonellosis
- D Brucellosis
- E Trichinellosis

A 60-year-old woman, mother of 6 children, developed a sudden onset of upper abdominal pain radiating to the back, accompanied by nausea, vomiting, fever and chills. Subsequently, she noticed yellow discoloration of her sclera and skin. On physical examination the patient was found to be febrile with temp of 38,9oC, along with right upper quadrant tenderness. The most likely diagnosis is:

- A Choledocholithiasis
- B Benign biliary stricture
- C Malignant biliary stricture
- D Carcinoma of the head of the pancreas
- E Choledochal cyst

A 42-year-old woman suffers from bronchial asthma, has an acute attack of bronchial asthma. What medication from the listed below is contraindicated to render a first aid?

- A Euphylinum
- B Izardin
- C Corazolium
- D Morphinum hydrochloride
- E Strophanthin hydrochloride

4 days ago a 32-year-old patient caught a cold: he presented with sore throat, fatigue. The next morning he felt worse, developed dry cough, body temperature rose up to 38,2oC, there appeared muco-purulent expectoration. Percussion revealed vesicular resonance over lungs, vesicular breathing weakened below the angle of the right scapula, fine sonorous and sibilant wheezes. What is the most likely diagnosis?

- A Focal right-sided pneumonia
- B Bronchial asthma
- C Acute bronchitis
- D Pulmonary carcinoma
- E Pulmonary gangrene

A 62-year-old patient complaining of enlargement of cervical, supraclavicular and axillary lymph nodes, subfebrile temperature for the last 3 months has been admitted to a hospital. In blood: WBCs – 64x10<sup>9</sup>/l, lymphocytes - 72%. What method of study should be used to specify the diagnosis?

- A Myelogram
- B Lymphography
- C Lymphoscintigraphy
- D X-rays
- E Thermography

A 38 y.o. woman complains of a purulent discharge from the left nostril. The body temperature is

37,50C. The patient has been ill for a week and associates her illness with common cold. There are a pain and tenderness on palpation of her left cheek. The mucous membrane in the left nasal cavity is red and turgescient. The purulent exudate is seen in the middle meatus in maxillary. What is the most probable diagnosis?

- A Acute purulent maxillary sinusitis
- B Acute purulent frontitis
- C Acute purulent ethmoiditis
- D Acute purulent sphenoiditis
- E -

A 40-year-old female patient has been hospitalized for attacks of asphyxia, cough with phlegm. She has a 4-year history of the disease. The first attack of asphyxia occurred during her stay in the countryside. Further attacks occurred while cleaning the room. After 3 days of inpatient treatment the patient's condition has significantly improved. What is the most likely etiological factor?

- A Household allergens
- B Pollen
- C Infectious
- D Chemicals
- E Psychogenic

The complications of acute cholecystitis which require surgical intervention are as follows EXCEPT:

- A Jaundice
- B Empyema of the gall-bladder
- C Emphysematous gall-bladder
- D Gall-bladder perforation
- E Cholangitis conditioned by the presence of stones in the bile tract

A 22-year-old girl has been complaining of having itching rash on her face for 2 days. She associates this disease with application of cosmetic face cream. Objectively: apparent reddening and edema of skin in the region of cheeks, chin and forehead; fine papulovesicular rash. What is the most likely diagnosis?

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

A schizophrenic patient considers himself to be "an outstanding scientist, a brilliant composer and an unrivalled artist". He complains that "family and friends are always jealous of him and want to poison him". Determine the psychopathological syndrome:

- A Paranoiac
- B Paranoid
- C Manic
- D Paratrophic
- E Hebephrenic

A 43-year-old alcohol abuser had not consumed alcohol for the last two days. In the evening he claimed to see rats and feel like they bite his feet. The patient is disoriented, agitated, all the

time attempts to run somewhere. Specify the psychopathological syndrome:

- A Delirious
- B Amential
- C Oneiroid
- D Choreatic
- E Ganser's syndrome

A 42-year-old patient complains of back pain, darkened urine, general weakness, dizziness that occurred after treating a cold with aspirin and ampicillin. Objectively: the patient is pale, with subicteric sclerae. HR - 98 bpm. Liver - +2 cm, spleen - +3 cm. In blood: RBCs -  $2,6 \times 10^{12}/l$ , Hb - 60 g/l, CI - 0,9, WBCs -  $9,4 \times 10^9/l$ , basophils - 0,5%, eosinophils - 3%, stab neutrophils - 6% segmented neutrophils - 58%, lymphocytes - 25%, monocytes - 7%, ESR - 38 mm/hour, reticulocytes - 24%. Total bilirubin - 38 millimole/l. What complication occurred in the patient?

- A Acquired hemolytic anemia
- B Toxic hepatitis
- C Cholelithiasis
- D Agranulocytosis
- E Paroxysmal nocturnal hemoglobinuria

A hospital has admitted a 52-year-old patient with disseminated pulmonary tuberculosis, complaints of acute pain in the right half of chest, that developed after going upstairs to the 3rd floor; cough, dyspnea at rest, marked cyanosis. What kind of complication should suspected first of all?

- A Spontaneous pneumothorax
- B Cardiac failure
- C Pulmonary failure
- D Pleuritis
- E Acute myocardial infarction

A 38-year-old male patient has been taking alcohol for 3 years. 3 days after a regular drinking period he felt anxiety and fear. It appeared to him that he was surrounded by spiders and worms, pursued by some "condemnatory voices". His behaviour became aggressive. The patient demonstrated correct self-awareness but impairment of temporal and spatial orientation. What is the most likely diagnosis?

- A Delirium alcoholicum
- B Alcoholic paranoia
- C Alcoholic hallucinosis
- D Alcoholic encephalopathy
- E Pathologic intoxication

A painter working at a motorcar plant has been diagnosed with moderately severe intoxication with amide compounds of benzene. The in-patient treatment resulted in a considerable health improvement. What expert decision should be made in this case?

- A The patient should be issued a sick list for out-patient treatment
- B The patient may get back to work providing he will keep to hygiene and sanitary regulations
- C The patient should be referred to the medio-social expert commission for evaluation of percentage of work capacity loss
- D The patient should be referred to the medio-social expert commission for attributing the disability group because of an occupational disease

E -

A 16-year-old patient who has a history of intense bleedings from minor cuts and sores needs to have the roots of teeth extracted. Examination reveals an increase in volume of the right knee joint, limitation of its mobility. There are no other changes. Blood analysis shows an inclination to anaemia (Hb- 120 g/l). Before the dental intervention it is required to prevent the bleeding by means of:

- A Cryoprecipitate
- B Epsilon-aminocaproic acid
- C Fibrinogen
- D Dried blood plasma
- E Calcium chloride

A 44-year-old patient complains about difficult urination, sensation of incomplete urinary bladder emptying. Sonographic examination of the urinary bladder near the urethra entrance revealed an oval well-defined hyperechogenic formation 2x3 cm large that was changing its position during the examination. What conclusion can be made?

- A Concrement
- B Malignant tumour of the urinary bladder
- C Urinary bladder polyp
- D Prostate adenoma
- E Primary ureter tumour

A 7-year-old boy had complained of headache, nausea, fatigue for 3 weeks. His condition gradually deteriorated, headache and general weakness progressed. The boy had bronchitis at the age of 3. His father has a history of pulmonary tuberculosis. Objectively: body temperature 37,5°C, conscious, lies supine, with the hip and knee flexed to 90 degrees, nuchal rigidity +6 cm, partial ptosis of the right eyelid, the dilated right pupil. General hyperalgesia is present. Liquor: transparent, pressure - 400 mm of water column, protein - 1,5%, cytos - 610/3 with predominant lymphocytes, sugar - 1,22 mmol/l, chlorides - 500 mmol/l. What is the most likely diagnosis?

- A Tuberculous meningitis
- B Secondary purulent meningitis
- C Epidemic cerebrospinal meningitis
- D Serous meningitis
- E Pneumococcal meningitis

A 35-year-old patient complains about pain and morning stiffness of hand joints and temporomandibular joints that lasts over 30 minutes. She has had these symptoms for 2 years. Objectively: edema of proximal interphalangeal digital joints and limited motions of joints. What examination should be administered?

- A Roentgenography of hands
- B Complete blood count
- C Rose-Waaler reaction
- D Immunogram
- E Proteinogram

A 69-year-old female patient complains of temperature rise up to 38,3°C, haematuria. ESR - 55 mm/h. Antibacterial therapy turned out to be ineffective. What diagnosis might be suspected?

- A Renal cancer

- B Polycystic renal disease
- C Renal amyloidosis
- D Urolithiasis
- E Chronic glomerulonephritis

Examination of a 35-year-old patient with rheumatism revealed that the right heart border was 1 cm displaced outwards from the right parasternal line, the upper border was on the level with inferior margin of the 1st rib, the left border was 1 cm in from the left midclavicular line. Auscultation revealed atrial fibrillation, loud apical first sound, diastolic shock above the pulmonary artery. Echocardiocopy revealed abnormal pattern of the mitral valve motion. What heart disease is characterized by these symptoms?

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

A 54-year-old male patient works as an engineer. At the age of 35, he got infected with syphilis and treated it with "traditional remedies". About 5 years ago, he became forgetful, unable to cope with work, told cynical jokes, bought useless things, collected cigarette butts in the street. Objectively: the patient is indifferent, has slow speech, dysarthria, can make only primitive judgments, is unable to perform simple arithmetic operations or explain simple metaphors. The patient is untidy, takes no interest in anything, passive. Considers himself to be completely healthy. Qualify mental condition of the patient:

- A Total dementia
- B Lacunar (dysmnestic) dementia
- C Somnolentia
- D Korsakoff's (amnesic) syndrome
- E Hysterical pseudodementia

A 47-year-old patient complains of insomnia, heaviness over his entire body, constantly depressed mood. He considers himself good-for-nothing, inadequate. Believes that he is a burden to his family, wants to die. The patient is depressed, inactive, has a hypomimic face with sorrowful expression. He speaks quietly and monotonely, gives short answers. What is the most likely diagnosis?

- A Major depressive disorder
- B Atherosclerotic depression
- C Initial stage of Alzheimer's disease
- D Late-onset schizophrenia
- E Neurotic depression

A patient, aged 16, complains of headache, mainly in the frontal and temporal areas, superciliary arch, appearing of vomiting at the peak of headache, pain during the eyeballs movement, joint's pain. On examination: excited, to- 39oC, Ps- 110/min. Tonic and clonus cramps. Uncertain meningeal signs. What is the most likely diagnosis?

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

A 64 y.o. patient has developed of squeezing substernal pain which had appeared 2 hours ago and irradiated to the left shoulder, marked weakness. On examination: pale skin, cold sweat. Pulse- 108 bpm, AP- 70/50 mm Hg, heart sound are deaf, vesicular breathing, soft abdomen, painless, varicose vein on the left shin, ECG: sinus rhythm, heart rate is 100 bpm, ST-segment is sharply elevated in II, III aVF leads. What is the most likely disorder?

- A Cardiogenic shock
- B Cardiac asthma
- C Pulmonary artery thromboembolia
- D Dissective aortic aneurysm
- E Cardiac tamponade

A 64-year-old patient complains of severe pain in the right side of chest, dyspnea, dry cough which appeared suddenly on exertion. Objectively: the right side of the chest lags behind in the act of breathing. Percussion reveals tympanic sound. Auscultation reveals pronouncedly diminished breath sounds on the right. Ps- 100/min, weak, arrhythmic. AP- 100/50 mm Hg. Cardiac sounds are decreased. What disease can be suspected in this patient?

- A Right-sided pneumothorax
- B Right-sided hydrothorax
- C Right-sided dry pleurisy
- D Right-sided pleuropneumonia
- E PATE

A 29-year-old female patient complains of dyspnea, heaviness and chest pain on the right, body temperature rise up to 37,2°C. The disease is associated with a chest trauma received 4 days ago. Objectively: skin is pale and moist. Ps- 90 bpm, regular. Palpation reveals a dull sound on the right, auscultation reveals significantly weakened vesicular breathing. In blood: RBCs -  $2,8 \times 10^{12}/l$ , colour index - 0,9, Hb- 100 g/l, WBCs -  $8,0 \times 10^9/l$ , ESR - 17 mm/h.

What results of diagnostic puncture of the pleural cavity can be expected?

- A Haemorrhagic punctate
- B Chylous liquid
- C Exudate
- D Transudate
- E Purulent punctate

A 54-year-old drowned man was rescued from the water and delivered to the shore. Objectively: the man is unconscious, pale, breathing cannot be auscultated, pulse is thready. Resuscitation measures allowed to save the patient. What complications may develop in the near future?

- A Pulmonary edema
- B Respiratory arrest
- C Encephalopathy
- D Cardiac arrest
- E Bronchospasm

An 18-year-old patient since childhood suffers from bleeding disorder after minor injuries. His younger brother also has bleeding disorders with occasional haemarthrosis. Which laboratory test will be informative for diagnosis verification?

- A Clotting time
- B Fibrinogen rate
- C Blood clot retraction



- D Thrombocyte count
- E Determination of prothrombin time

A 28-year-old patient complains of periodic compressing heart pain. His brother died at the age of 34 from a cardiac disease with similar symptoms. Objectively: the patient's skin is pale. Heart borders display no significant deviations. Heart sounds are loud, there is a systolic murmur above all the points with a peak above the aorta. Echocardiography reveals thickening of the interventricular septum in the basal parts, reduction of left ventricular cavity. What drug should be administered in order to prevent the disease progression?

- A Metoprolol
- B Digoxin
- C Nitroglycerin
- D Captopril
- E Furosemide

A patient, aged 40, has been ill during approximately 8 years, complains of pain in the lumbar part of the spine on physical exertion, in cervical and thoracic part (especially when coughing), pain in the hip and knee joints on the right. On examination: the body is fixed in the forward inclination with head down, gluteal muscles atrophy. Spine roentgenography: ribs osteoporosis, longitudinal ligament ossification. What is the most likely diagnosis?

- A Ankylosing spondylitis
- B Tuberculous spondylitis
- C Psoriatic spondyloarthropathy
- D Spondyloarthropathy on the background of Reiter's disease
- E Spread osteochondrosis of the vertebral column

A worker, aged 38, working in the slate production during 15 years, complains of expiratory exertional dyspnea, dry cough. On examination: dullness of the percussory sounds in interscapular region, rough breath sounds, dry disseminated rales. On fingers' skin - greyish warts. Factory's sectorial doctor suspects asbestosis. Which method is the most informative for diagnosis verification?

- A Thorax roentgenography
- B Bronchoscopy
- C Spirometry
- D Bronchoalveolar lavage
- E Blood gases examination

A 37 y.o. woman is suffering from squeezing substernal pain on physical exertion. On examination: BP- 130/80 mm Hg, heart rate=pulse rate 72 bpm, heart borders are dilated to the left side, aortic systolic murmur. ECG- signs of the left ventricle hypertrophy. What method of examination is the most informative in this case?

- A Echocardiography
- B Phonocardiography
- C Coronarography
- D Sphygmography
- E X-ray

A 58-year-old woman complains of osteoarthritis of knee-joint. For 2 weeks she had been receiving an in-patient medical treatment. She was discharged from the hospital in satisfactory condition with complaints of minor pain after prolonged static work. Local hyperemia and

exudative effects in the area of joints are absent. What further tactics is the most expedient?

- A Outpatient treatment
- B Repeated in-patient treatment
- C Conducting arthroscopy
- D Referral to MSEC
- E Orthopedist consultation

A 36-year-old female has a 7-year history of pollen allergy. Over the last 2 years in August and September (during ragweed flowering), the patient has had 2-3 asthma attacks that could be treated with one dose of salbutamol. Objectively: body temperature - 36,5°C, respiratory rate - 18/min, Ps - 78/min, AP - 115/70 mm Hg. There is vesicular breathing above the lungs. Cardiac sounds are sonorous, of regular rhythm. What drug would be most effective to prevent asthma attacks during the critical season for the patient?

- A Intalun inhalation
- B Berotec inhalation
- C Atrovent inhalation
- D Suprastin administration
- E Theoprecum administration

A 42-year-old patient applied to hospital with complaints of pain behind the sternum with irradiation to the left scapula. The pain appears during significant physical work, this lasts for 5-10 minutes and is over on rest. The patient is sick for 3 weeks. What is the preliminary diagnosis?

- A IHD: First established angina pectoris
- B IHD: Variant angina pectoris (Prinzmetal's)
- C IHD: Stable angina pectoris of effort I FC
- D IHD: Stable angina pectoris of effort IV FC
- E IHD: Progressive angina pectoris

Medical examination of a 19-year-old worker revealed generalized lymphadenopathy mainly affecting the posterior cervical, axillary and ulnar lymph nodes. There are multiple injection marks on the elbow bend skin. The man denies taking drugs, the presence of injection marks ascribes to influenza treatment. Blood count: RBCs-  $3,2 \times 10^{12}/l$ , Hb- 100 g/l, WBCs-  $3,1 \times 10^9/l$ , moderate lymphopenia. What study is required in the first place?

- A ELISA for HIV
- B Immunogram
- C Sternal puncture
- D X-ray of lungs
- E Lymph node biopsy

A 25-year-old female patient complains of marked weakness, sleepiness, blackouts, dizziness, taste disorder. The patient has a history of menorrhagia. Objectively: the patient has marked weakness, pale skin, cracks in the corners of mouth, peeling nails, systolic apical murmur. Blood test results: RBC -  $3,4 \times 10^{12}/l$ , Hb - 70 g/l, color index - 0,75, platelets -  $140 \times 10^9/l$ , WBC -  $6,2 \times 10^9/l$ .

What is the most likely diagnosis?

- A Chronic posthemorrhagic anemia
- B Acute leukemia
- C Acute posthemorrhagic anemia
- D B12-deficiency anemia

E Werlhof's disease

A 24-year-old patient felt sick in 16 hours after dried fish intake. There was nausea, vomiting, weakness, flabbiness, double vision. On physical exam, there was decrease of a muscle tone, anisocoria, flaccid swallowing and tendon reflex. What is the most probable diagnosis?

- A Botulism
- B Food toxicoinfection
- C Acute gastritis
- D Acute encephalitis
- E Salmonellosis

A 72-year-old patient after operation due to cholecystectomy was prescribed gentamicin (80 mg every 8 hours) and cephalothin (2 g every 6 hours) due to fever. In 10 days there was an increase of creatinine up to  $310 \mu\text{mol/L}$ . BP - 130/80 mm Hg, daily quantity of the urine is 1200 mL. Urine tests are without pathology. Ultrasound: the size of kidneys is normal.

What is the most probable reason for renal failure?

- A Nephrotoxicity of gentamicin
- B Acute glomerulonephritis
- C Cortical necrosis of kidneys
- D Unequal infusion of the liquid
- E Hepatorenal syndrome

A 40 y.o. patient was admitted to the gastroenterology with skin itching, jaundice, discomfort in the right subcostal area, generalized weakness. On examination: skin is jaundice, traces of scratches, liver is +5 cm, spleen is 6x8 cm. In blood: alkaline phosphatase -  $2,0 \text{ mmol}/(\text{hour}\cdot\text{L})$ , general bilirubin -  $60 \text{ mkmol/L}$ , cholesterol -  $8,0 \text{ mmol/L}$ . What is the leading syndrome in the patient?

- A Cholestatic
- B Cytolytic
- C Mesenchymal inflammatory
- D Asthenic
- E Liver-cells insufficiency

A 55-year-old male had been treated at the surgical department for acute lower-extremity thrombophlebitis. On the 7th day of treatment he suddenly developed pain in the left part of chest, dyspnea and cough. Body temperature was  $36,1^\circ\text{C}$ , respiratory rate - 36/min. The patient was also found to have diminished breath sounds without wheezing. Ps- 140/min, thready. AP- 70/50 mm Hg. The ECG shows QIII-S1 syndrome. What is the most likely diagnosis?

- A Pulmonary embolism
- B Myocardial infarction
- C Cardiac asthma
- D Bronchial asthma
- E Pneumothorax

A 51-year-old female is a weaving factory worker with 15 years of service record. During a regular preventive examination she complained of frequent headaches, poor sleep, tingling in the heart, irritability, rapid fatigability, hearing impairment. For years, the noise level has exceeded the maximum allowable concentration by 10-15 dB. A year ago, the patient underwent a course of treatment for essential hypertension. Specify the most likely diagnosis:

- A Noise disease
- B Essential hypertension
- C Neurasthenia
- D Asthenic-vegetative syndrome
- E Arteriosclerotic encephalopathy

A 26-year-old patient undergoes a course of treatment due to chronic glomerulonephritis. The treatment was successful, normalization of all the characteristics was recorded. What sanatorium and health resort treatment could be recommended?

- A The south coast of the Crimea
- B Not recommended
- C Morshyn
- D Myrhorod
- E Truskavets

After a wasp-bite there was an itching of skin, hoarse voice, barking cough, anxiety. On physical exam: there is edema of lips, eyelids, cyanosis. What medicine is to be taken first?

- A Prednisolone
- B Adrenalin
- C Euphylin
- D Lasix
- E Seduxen

A 16-year-old adolescent was vaccinated with DTP. In eight days there was stiffness and pain in the joints, subfebrile temperature, urticarial skin eruption, enlargement of inguinal, cervical lymph nodes and spleen. What kind of allergic reaction is observed?

- A Immunocomplex
- B Hypersensitivity of immediate type
- C Cytotoxic
- D Hypersensitivity of delayed type
- E -

2 weeks after recovering from angina a 29-year-old patient noticed face edemata, weakness, decreased work performance. There was gradual progress of dyspnea, edemata of the lower extremities, lumbar spine. Objectively: pale skin, weakening of the heart sounds, anasarca. AP- 160/100 mm Hg. In urine: the relative density - 1021, protein - 5 g/l, erythrocytes - 20-30 in the field of vision, hyaline cylinders - 4-6 in the field of vision. What is the most likely diagnosis?

- A Acute glomerulonephritis
- B Essential hypertension
- C Acute pyelonephritis
- D Infectious allergic myocarditis
- E Myxedema

A 56-year-old scientist experiences constricting retrosternal pain several times a day while walking for 100-150 m. The pain lasts for up to 10 minutes and can be relieved by nitroglycerine. Objectively: the patient is overweight, heart borders exhibit no abnormalities, heart sounds are rhythmic, Ps- 78 bpm, AP- 130/80 mm Hg. ECG contains low amplitude of T wave in V4-5. What disease might be suspected?

- A Stable FC III stenocardia
- B Instable stenocardia

- C Stable FC I stenocardia
- D Stable FC II stenocardia
- E Stable FC IV stenocardia

In autumn a 25-year-old patient developed stomach ache arising 1,5-2 hours after having meals and at night. He complains of pyrosis and constipation. The pain is getting worse after consuming spicy, salty and sour food, it can be relieved by means of soda and hot-water bag. The patient has been suffering from this disease for a year. Objectively: furred moist tongue. Abdomen palpation reveals epigastric pain on the right, resistance of abdominal muscles in the same region. What is the most likely diagnosis?

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

A 51 y.o. woman complains of dull pain in the right subcostal area and epigastric area, nausea, appetite decline during 6 months. There is a history of gastric peptic ulcer. On examination: weight loss, pulse is 70 bpm, AP is 120/70 mm Hg. Diffuse tenderness and resistance of muscles on palpation. There is a hard lymphatic node 1x1cm in size over the left clavicle. What method of investigation will be the most useful?

- A Esophagogastroduodenoscopy with biopsy
- B Ultrasound examination of abdomen
- C pH-metry
- D Ureatic test
- E Stomach X-ray

On the 20th of June a townsman was brought to clinic. The disease broke out acutely, starting with fever, rise in temperature to 38-39°C. There also was weakness, acute headache, nausea, vomiting, pain all over the body, sleep disorder. On physical examination: hyperemia of skin of face, neck, thorax. Meningeal signs are positive. 12 days ago the patient returned from the Siberia, from the forest. What is the most probable diagnosis?

- A Tick-borne encephalitis
- B Influenza
- C Omsk hemorrhagic fever
- D Pseudotuberculosis
- E Epidemic typhus

A 37-year-old patient has sudden acute pain in the right epigastric area after having fatty food. What method of radiological investigation is to be used on the first stage of examining the patient?

- A Ultrasonic
- B Roentgenological
- C Radionuclid
- D Magnetic-resonance
- E Thermographic

A man, aged 68, complains of tiredness, sweating, enlargement of cervical, submaxillary and axillary lymph nodes. Blood test: WBC-  $35 \times 10^9/L$ , lymphocytes - 60%, Botkin and Gumprecht bodies,

level of haemoglobin and quantity of thrombocytes is normal. Myelogram showed 40% of lymphocytes. What is the most probable diagnosis?

- A Chronic lympholeucosis
- B Chronic myeloleucosis
- C Lymphogranulomatosis
- D Acute leucosis
- E Tuberculous lymphadenitis

A 38-year-old patient is under observation having polyneuritic syndrome with considerable loss of weight, fever, rise in BP. Blood test:: considerable inflammatory changes. What examination is the most expedient to make the diagnosis?

- A Muscular biopsy with histological investigation of the material
- B Determination of antinuclear antibodies
- C Electromyography
- D Blood culture
- E Determination of HLA antigens

A 32-year-old male patient has been suffering from pain in the sacrum and coxofemoral joints, painfulness and stiffness in the lumbar spine for a year. ESR- 56 mm/h. Roentgenography revealed symptoms of bilateral sacroileitis. The patient is the carrier of HLA B27 antigen. What is the most likely diagnosis?

- A Ankylosing spondylitis
- B Coxarthrosis
- C Rheumatoid arthritis
- D Reiter's disease
- E Spondylosis

A 58-year-old female patient complains about periodical headache, dizziness and ear noise. She has been suffering from diabetes mellitus for 15 years. Objectively: heart sounds are rhythmic, heart rate is 76/min, there is diastolic shock above aorta, AP is 180/110 mm Hg. In urine: OD- 1,014. Daily loss of protein with urine is 1,5 g. What drug should be chosen for treatment of arterial hypertension?

- A Inhibitor of angiotensin converting enzyme
- B beta-blocker
- C Calcium channel antagonist
- D Thiazide diuretic
- E alpha-blocker

A 26 y.o. male patient with postoperative hypothyroidism take thyroxine 100 mg 2 times a day. He has developed tachycardia, sweating, irritability, sleep disorder. Determine further treatment tactics.

- A To decrease thyroxine dosage
- B To increase thyroxine dosage
- C To administer betablockers
- D To add mercasolil to the treatment
- E To administer sedatives

A 28-year-old man was discharged from the hospital after having an out-of-hospital pneumonia. He has no complaints. On physical exam: his temperature is 36,6°C, RR-18/min, Ps - 78 bpm, BP- 120/80 mm Hg. During auscultation there is harsh respiration to the right of the lower

part of the lung. Roentgenologically: infiltrative changes are absent, intensification of the pulmonary picture to the right in the lower lobe. How long should the doctor keep the patient under observation?

- A 12 months
- B 1 month
- C 3 months
- D 6 months
- E Permanently

A 20-year-old adolescent lives in the nidus of tuberculous infection. The tuberculin Mantoux test with 2 TU was determined as hyperergic. What signs determine the hyperergic test of this adolescent?

- A 6 mm papula, necrosis
- B 20 mm papula
- C 24 mm hyperemia
- D 4 mm papula
- E 12 mm hyperemia

A survey radiograph of a miner (24 years of service record, the dust concentration in the workplace is at the rate of 260-280 mg/m<sup>3</sup> with 15% of free silica) shows lung changes that are typical for pneumoconiosis. What type of pneumoconiosis is it?

- A Anthracosilicosis
- B Carboconiosis
- C Silicosis
- D Anthracosilicosis
- E Silicosis

A patient complains of pathological lump, appearing in the right inguinal region on exercise. The lump is round-shaped, 4 cm in diameter, on palpation: soft elastic consistency, is positioned near the medial part of Poupart's ligament. The lump is situated inwards from the spermatic cord. What is the most probable preliminary diagnosis?

- A Right-sided direct inguinal hernia
- B Right-sided oblique inguinal hernia
- C Right-sided femoral hernia
- D Varicose veins of the right hip
- E Lipoma of the right inguinal area

A 35-year-old man was operated on peptic ulcer of the stomach. Mass deficit of the body is 10 kg. The level of glucose after operation in the undiluted cellular blood on an empty stomach is 6,7 mmol. During repeated examination - 11,1 mmol (after meal), level of HbA1c - 10%. Could you please make an interpretation of the given data?

- A Diabetes mellitus
- B Disordered tolerance to glucose
- C Diabetes mellitus risk group
- D Norm
- E Postoperative hyperinsulinemia

A 52 y.o. woman complains of weakness, painful itching after washing and bathing, sensation of heaviness in the head. On examination: hyperemia of skin of face, neck, extremities. AP-180/100 mm Hg. Speeln is 4 cm below the rib arch edge. What is the most probable diagnosis?

- A Erythremia
- B Essential hypertension
- C Dermatomyositis
- D Allergic dermatitis
- E Systemic sclerodermia

A 37-year-old patient was brought to resuscitation unit. General condition of the patient is very serious. Sopor. The skin is grey, moist. Turgor is decreased. Pulse is rapid, intense. BP - 160/110 mm Hg, muscle tonus is increased. Hyperreflexia. There is an ammonia odor in the air. What is the presumptive diagnosis?

- A Uraemic coma
- B Alcoholic coma
- C Hyperglycemic coma
- D Hypoglycemic coma
- E Cerebral coma

A 57-year-old man complains of shortness of breath, swelling on shanks, irregularity in cardiac work, pain in the left chest half with irradiation to the left scapula. Treatment is ineffective. On physical exam: heart's sounds are diminished, soft systolic murmur on the apex. Ps - 100/min, arrhythmical, BP - 115/75 mm Hg. The liver is +2 cm, painful. Roentgenoscopy: enlargement of heart

shadow to all sides, pulsation is weak. Electrocardiogram (ECG): leftventricled extrasystolia, decreased voltage. What method of investigation is necessary to do to determine the diagnosis?

- A Echocardiography
- B Veloergometria
- C X-ray kymography
- D ECG in the dynamics
- E Coronarography

A 55 y.o. patient complains of distended abdomen and rumbling, increased winds evacuation, liquid foamy feces with sour smell following the dairy products consumption. What is the correct name of this syndrome?

- A Syndrome of fermentative dyspepsia
- B Syndrome of decayed dyspepsia
- C Syndrome of fatty dyspepsia
- D Dyskinesia syndrome
- E Malabsorption syndrome

A 54-year-old patient has an over 20-year history of femoral osteomyelitis. Over the last month she has developed progressing edemata of the lower extremities. Urine test reveals: proteinuria at the rate of 6,6 g/l; in blood: dysproteinemia in form of hypoalbuminemia, increase in  $\alpha$ 2- and  $\gamma$ -globulin rate, ESR - 50 mm/h. What is the most likely diagnosis?

- A Secondary renal amyloidosis
- B Acute glomerulonephritis
- C Myelomatosis
- D Chronic glomerulonephritis
- E Systemic lupus erythematosus

In an inhabited locality there is an increase of diphtheria during the last 3 years with separate outbursts in families. What measure can effectively influence the epidemic process of



diphtheria and reduce the morbidity rate to single cases?

- A Immunization of the population
- B Hospitalization of patients
- C Detection of carriers
- D Early diagnostics
- E Disinfection in disease focus

A 14-year-old victim was drawn out of the water in winter after 15 minutes of being in the water. The victim shows no vital signs. What measures are to be taken?

- A To release respiratory tract from water, to create drain position and to take on measures to restore respiration and blood circulation
- B Not to waste time on the release of respiratory tract from water, to take on cardiopulmonary reanimation
- C To transport the victim to the nearest hospital to carry out reanimation measures
- D To transport the victim to the nearest warm room to carry out reanimation measures
- E Not to carry out reanimation measures

An electro-gas welding operator working at a machine workshop performs welding and cutting of metal, which is accompanied by intense UV-radiation. His welding station is equipped with effective mechanical ventilation. What occupational disease is most likely to develop in an electro-gas welding operator?

- A Photoelectric ophthalmia
- B Heatstroke
- C Vegetative-vascular dystonia
- D Chronic overheating
- E Pneumoconiosis

A woman complains of high temperature to 38°C, mild pain in the throat during 3 days. On examination: angle lymphatic nodes of the jaw are 3 cm enlarged, palatine tonsils are enlarged and coated with grey plaque which spreads to the uvula and frontal palatine arches. What is the most probable diagnosis?

- A Larynx diphtheria
- B Infectious mononucleosis
- C Vincent's angina
- D Agranulocytosis
- E Oropharyngeal candidosis

A 48-year-old male patient complains of constant pain in the upper abdomen, mostly on the left, that is getting worse after taking meals; diarrhea, weight loss. The patient is an alcohol abuser. 2 years ago he had acute pancreatitis. Blood amylase is 4 g/h\*l. Coprogram shows steatorrhea, creatorrhea. Blood glucose is 6,0 mmol/l. What treatment is indicated for this patient?

- A Panzinorm forte
- B Insulin
- C Gastrozepin
- D Contrycal
- E No-spa

A 60-year-old female patient had been admitted to a hospital for acute transmural infarction. An hour later the patient's condition got worse. She developed progressing dyspnea, dry cough. Respiratory rate - 30/min, heart rate - 130/min, AP- 90/60 mm Hg. Heart sounds were muffled,

there was also diastolic shock on the pulmonary artery. The patient presented with medium moist rales in the lower parts of lungs on the right and on the left. Body temperature - 36,4C. What drug should be given in the first place?

- A Promedol
- B Aminophylline
- C Dopamine
- D Heparin
- E Digoxin

A 62-year-old male has been hospitalized in the intensive care unit with a continuous attack of retrosternal pain that cannot be relieved by nitroglycerin. Objectively: AP- 80/60 mm Hg, heart rate - 106/min, breathing rate - 22/min. Heart sounds are muffled, a gallop rhythm is present.

How would you explain the AP drop?

- A Reduction in cardiac output
- B Reduction in peripheral resistance
- C Blood depositing in the abdominal cavity
- D Adrenergic receptor block
- E Internal haemorrhage

A 35-year-old female reports heart pain (aching and drilling) occurring mainly in the morning in autumn and spring and irradiating to the neck, back and abdomen; rapid heartbeat; low vitality. Occurrence of this condition is not associated with physical activity. In the evening, the patient's condition improves. Study of somatic and neurological status, and ECG reveal no pathology.

What pathology is most likely to have caused these clinical presentations?

- A Somatization depression
- B Resting stenocardia
- C Pseudoneurotic schizophrenia
- D Neurocirculatory asthenia
- E Hypochondriacal depression

A 18 y.o. male patient complains of pain in knee and ankle joints, temperature elevation to 39,5oC. He had a respiratory disease 1,5 week ago. On examination: temperature- 38,5oC, swollen knee and ankle joints, pulse- 106 bpm, rhythmic, AP- 90/60 mm Hg, heart borders without changes, sounds are weakened, soft systolic apical murmur. What indicator is connected with possible etiology of the process?

- A Antistreptolysine-0
- B 1-antitrypsine
- C Creatinkinase
- D Rheumatic factor
- E Seromuroid

A 30 y.o. male patient complains of itching of the skin which intensifies in the evening. He has been ill for 1,5 months. On examination: there is rash with paired papules covered with bloody crusts on the abdomen, hips, buttocks, folds between the fingers, flexor surfaces of the hand. There are traces of line scratches. What additional investigations are necessary to make diagnosis?

- A Examination of rash elements scrape
- B Determination of dermographism
- C Serologic blood examination
- D Blood glucose

## E Examination for helminths

A 50-year-old locksmith has a long-term record of work under the effect of mercury vapors with concentration exceeding MPC by 5-10 times. Clinical examination revealed the lability of vasomotors of skin, pulse and arterial pressure; total hyperhidrosis; asymmetric innervation of facial and lingual muscles, positive subcortical reflexes, intention tremor. Against the background of increased emotional excitability the patient presents with lack of self-confidence, shyness. A dentist found him to have parodontosis, chronic stomatitis. What disease can be suspected?

- A Chronic mercury intoxication
- B Residual effects of neuroinfection
- C Parkinson's syndrome
- D Acute mercury intoxication
- E Vascular encephalopathy

4 hours after having meals a patient with signs of malnutrition and steatorrhea experiences stomach pain, especially above navel and to the left of it. Diarrheas take turns with constipation lasting up to 3-5 days. Palpation reveals moderate painfulness in the choledochopancreatic region. The amylase rate in blood is stable. X-ray reveals some calcifications located above navel. What is the most likely diagnosis?

- A Chronic pancreatitis
- B Chronic gastroduodenitis
- C Duodenal ulcer
- D Zollinger-Ellison syndrome
- E Chronic calculous cholecystitis

A 58 y.o. male patient is examined by a physician and suffers from general weakness, fatigue, mild pain in the left subcostal area, sometimes frequent painful urination. Moderate splenomegaly has been revealed. Blood test: neutrophilic leukocytosis with the progress to myelocyte; basophil- 2%; eosinophil- 5%. There is a urate crystals in urine, erythrocyte- 2-3 in the field of vision. What is the preliminary diagnosis?

- A Chronic myeloleucosis
- B Leukemoid reaction
- C Lymphogranulomatosis
- D Hepar cirrhosis
- E Urolithiasis

A 56-year-old patient with diffuse toxic goiter has ciliary arrhythmia with pulse rate of 110 bpm, arterial hypertension, AP- 165/90 mm Hg. What preparation should be administered along with mercazolil?

- A Propranolol
- B Radioactive iodine
- C Procaine hydrochloride
- D Verapamil
- E Corinfar

A 54-year-old patient complains of weakness, weight loss despite the unchanged appetite, frequent urination, skin itch for six months. Some time ago the patient underwent treatment for furunculosis. She hasn't been examined recently. Objectively: malnutrition, dry skin with signs of scratching. Small lymph nodes can be palpated in the axillary regions. Changes in the internal

organs are absent. What testing must be administered in the first place?

- A Blood sugar test on an empty stomach
- B Complete blood count
- C Endoscopy of stomach
- D Lymph node biopsy
- E Blood sterility testing

A 43 y.o. woman complains of severe pain in the right abdominal side irradiating in the right supraclavicular area, fever, dryness and bitterness in the mouth. There were multiple vomitings without relief. Patient relates the onset of pain to the taking of fat and fried food. Physical examination: the patient lies on the right side, pale, dry tongue, tachycardia. Right side of abdomen is painful during palpation and somewhat tense in right hypochondrium. What is the most likely diagnosis?

- A Perforative ulcer
- B Acute cholecystitis
- C Acute bowel obstruction
- D Acute appendicitis
- E Right-sided renal colic

Several hours before, a 28-year-old patient suddenly developed acute headache and repeated vomiting, then lost consciousness. Objectively: focal neurological symptoms were not found. Pronounced meningeal symptoms were revealed. AP - 120/80 mm Hg. According to clinical and liquorological findings the patient was diagnosed with subarachnoid haemorrhage. After administration of dehydrants the patient's condition somewhat improved. What is the main component of further emergency care?

- A Coagulants
- B Anticoagulants
- C Antiaggregants
- D Fibrinolytics
- E Corticosteroids

On the 5th day of a respiratory disease accompanied by fever a 24-year-old man developed progressing headaches, systemic dizziness, double vision, facial muscles paresis on the right, choking from swallowing. He was diagnosed with acute viral encephalitis. Identify the main tendency of the emergency treatment:

- A Zovirax
- B Glucocorticoids
- C Ceftriaxone
- D Lasix
- E Haemodezum

A 24-year-old man on the 5th day of acute respiratory disease with high grade temperature started having strong headaches, systemic dizziness, sensation of double vision, paresis of mimic muscles to the right, tickling by swallowing. Diagnosis: Acute viral encephalitis. Determine the basic direction of the emergent therapy.

- A Zovirax
- B Glucocorticoids
- C Cephtriaxon
- D Lasix
- E Hemodesis

A 30-year-old patient was delivered to the admission ward of the infectious disease department. The disease had started acutely on the background of normal temperature with the appearance of frequent, liquid, profuse stool without pathological impurities. Diarrhea was not accompanied by abdominal pain. 12 hours later there appeared recurrent profuse vomiting. The patient rapidly developed dehydration. What is the most likely diagnosis?

- A Cholera
- B Shigellosis
- C Staphylococcal food toxicoinfection
- D Salmonellosis
- E Campylobacteriosis

A 65 y.o. woman complains of complicated mouth opening following foot trauma 10 days ago. Next day she ate with difficulties, there were muscles tension of back, the back of the head and abdomen. On the third day there was tension of all muscle groups, generalized convulsions every 10-15 min. What is the most probable diagnosis?

- A Tetanus
- B Tetania
- C Meningoencephalitis
- D Hemorrhagic stroke
- E Epilepsy

Gastric juice analysis of a 42-year-old male patient revealed absence of free hydrochloric acid at all stages. Endoscopy revealed pallor, thinning of gastric mucosa, smoothed folds. Microscopically the atrophy of glands with intestinal metaplasia was found. What disease is this situation typical for?

- A Chronic type A gastritis
- B Chronic type B gastritis
- C Chronic type C gastritis
- D Menetrier disease
- E Stomach cancer

A 45-year-old female patient complains of frequent liquid stools with a lot of mucus, pus and blood; pain across the abdomen, loss of 7 kg within 6 months. She has a 1-year history of non-specific ulcerative colitis. What group of drugs should be preferred for this patient?

- A Corticosteroids
- B Antibacterial
- C Sulfonamides
- D Nitrofurans
- E Polyenzymes

A 54-year-old male patient complains of aching pain in the lumbar region, that is getting worse after standing in an upright position, physical exercise, supercooling. The patient also reports of experiencing weakness in the afternoon. Pain in the lumbar region, said about 10 years old.

Objectively: pale skin, to- 37,2oC, AP- 180/100 mm Hg, minor costovertebral angle tenderness (Pasternatsky symptom). In blood: RBCs -  $3,5 \times 10^{12}/l$ , WBCs -  $6,5 \times 10^9/l$ , ESR - 22 mm/h.

In urine: the relative density - 1010, leukocytes - 12-15 in the field of vision, erythrocytes - 2-3 in the field of vision. Urine bacterial count - 100000 in 1 ml. What is the most likely diagnosis?

- A Chronic pyelonephritis

- B Nephrolithiasis
- C Polycystic renal disease
- D Chronic glomerulonephritis
- E Amyloidosis

A 67-year-old male complains of dyspnea on exertion, attacks of retrosternal pain, dizziness. He has no history of rheumatism. Objectively: pale skin, acrocyanosis. There are rales in the lower parts of lungs. There is systolic thrill in the II intercostal space on the right, coarse systolic murmur conducted to the vessels of neck. AP- 130/90 mm Hg, heart rate - 90/min, regular rhythm. The liver extends 5 cm under the edge of costal arch, shin edemata are present. Specify the assumed valvular defect:

- A Aortic stenosis
- B Pulmonary artery stenosis
- C Mitral insufficiency
- D Ventricular septal defect
- E Tricuspid regurgitation

A 24-year-old female teacher complains of dizziness and heart pain irradiating to the left nipple. Pain is not associated with physical activity and cannot be relieved by nitroglycerin, it abates after taking Valocordin and lasts an hour or more. The patient has a nearly 2-year history of this disease. Objectively: Ps- 76 bpm. AP- 110/70 mm Hg. Heart borders are normal, heart sounds are clear. The ECG shows respiratory arrhythmia. Radiograph of the cervicothoracic spine shows no pathology. Lungs, abdomen are unremarkable. What changes in blood formula can be expected?

- A No changes
- B Leukocytosis
- C Thrombocytopenia
- D Leukemic hiatus
- E Increased ESR

A 51-year-old female patient complains of frequent defecation and liquid blood-streaked stools with mucus admixtures, diffuse pain in the inferolateral abdomen, 6 kg weight loss over the previous month. Objectively: body temperature - 37,4°C, malnutrition, skin is pale and dry. Abdomen is soft, sigmoid is painful and spasmodic, makes a rumbling sound. Liver is dense, painful, extends 3 cm below the costal margin. What is the most likely diagnosis?

- A Non-specific ulcerative colitis
- B Bacillary dysentery
- C Sprue
- D Intestinal enzymopathy
- E Helminthic invasion

A 18 y.o. female student complains of dyspnea during the intensive exertion. The condition became worse half a year ago. On examination: pulse rate is 88 bpm, accelerated, AP- 180/20 mm Hg, pale skin, heart borders are dilated to the left and up. There is systolic-diastolic murmur in the 2nd intercostal space, S2 at pulmonary artery is accentuated. ECG has revealed both ventricles hypertrophy. Thoracic X-ray has revealed pulsation and protrusion of the left ventricle, lung trunk. What doctor's tactics should be?

- A Cardiosurgeon consultation
- B Dispensary observation
- C Administration of therapeutic treatment

- D Continuation of investigation
- E Exemption from physical exercises

A 49-year-old male patient complains of dyspnea of combined nature, cough, shin edemata, abdomen enlargement due to ascites. He has a 20-year history of chronic bronchitis. For the last 3 years he has been disabled (group II) because of cardiac changes. Objectively: mixed cyanosis, edemata. Ps - 92/min, rhythmic, AP - 120/70 mm Hg, respiration rate - 24/min. There is accentuation of the second sound above the pulmonary artery. Auscultation reveals the box resonance above the lungs. There are also dry rales over the entire surface of lungs. What is the mechanism of heart changes development in this patient?

- A Euler-Liljestrand reflex
- B Kitaev's reflex
- C Bainbridge reflex
- D Cardiovascular reflex
- E Respiratory reflex

A 24-year-old man on the second day of the disease with a sudden onset complains of a strong headache in temples and in the area of orbits, dull pain in the body, dry painful cough. His temperature is 39°C. Adynamic. Mucous membrane of oropharynx is "flaming", rales are not auscultated. What is the most probable diagnosis?

- A Influenza
- B Parainfluenza
- C Respiratory mycoplasmosis
- D Pneumonia
- E Meningococcus infection

A 32-year-old female complains of dizziness, headache, palpitation, tremor. For the last several months she has been under outpatient observation for the increased arterial pressure. Since recently such attacks have become more frequent and severe. Objectively: skin is covered with clammy sweat, tremor of the extremities is present. HR- 110/min, AP- 220/140 mm Hg. Heart sounds are muffled. Blood test results: WBCs -  $9,8 \times 10^9/l$ , ESR - 22 mm/h. Blood glucose - 9,8 millimole/l. What disease is the most likely cause of this crisis?

- A Pheochromocytoma
- B Essential hypertension
- C Preeclampsia
- D Primary hyperaldosteronism
- E Diabetic glomerulosclerosis

A 76-year-old male consulted a therapist about slow discharge of urine with a small jet. The patient reported no cardiac problems. Examination revealed atrial fibrillation with a heart rate of 72/min and without pulse deficit. There are no signs of heart failure. ECG confirms the presence of atrial fibrillation. From history we know that the arrhythmia was detected three years ago. What tactics for the treatment of atrial fibrillation in the patient should be chosen?

- A Does not require treatment
- B Digoxin
- C Verapamil
- D Obzidan
- E Ajmaline

A 43-year-old female patient complains of unstable defecation with frequent constipations,

abdominal swelling, headache, sleep disturbance. Body weight is unchanged. What disease are these clinical presentations typical for?

- A Irritable colon syndrome
- B Chronic enteritis
- C Chronic pancreatitis
- D Chronic atrophic gastritis
- E Colorectal cancer

A 43-year-old man who often contacts with ethyl gasoline was admitted to a hospital with complaints of general weakness, dizziness, memory impairment, sleepiness at daytime and insomnia at night, sensation of a hair in the mouth, colicky pains in the right subcostal region. What is the most likely diagnosis?

- A Chronic tetraethyl lead intoxication
- B Alcoholic delirium
- C Chronic mercury intoxication
- D Chronic manganese intoxication
- E Chronic lead intoxication

A 35-year-old patient has been in the intensive care unit for acute renal failure due to crush for 4 days. Objectively: the patient is inadequate. Breathing rate - 32/min. Over the last 3 hours individual moist rales can be auscultated in lungs. ECG shows high T waves, right ventricular extrasystoles. CVP - 159 mm Hg. In blood: the residual nitrogen - 62 millimole/l, K<sup>+</sup> - 7,1 millimole/l, Cl<sup>-</sup> - 78 millimole/l, Na<sup>+</sup> - 120 millimole/l, Ht - 0,32, Hb - 100 g/l, blood creatinine - 0,9 millimole/l. The most appropriate method of treatment would be:

- A Hemodialysis
- B Plasma sorption
- C Hemosorption
- D Plasma filtration
- E Ultrafiltration

A 45-year-old man was brought to clinic with complaints of the pain that started suddenly in the left chest part and epigastric area, shortness of breath, nausea, one-time vomiting. The acute pain started after weight-lifting. On physical exam: shallow breathing, RR - 38/min, left chest part is behind during respiration, by percussion - tympanic sound, respiration is not auscultated. Ps - 110 bpm, of weak filling. BP- 100/60 mm Hg, insignificant displacement of heart to the right, sounds are dull. What examination is the most expedient to do first?

- A Roentgenography
- B Electrocardiography
- C Bronchoscopy
- D Esophagogastroscopy
- E Ultrasound of the abdominal cavity

A 35 y.o. woman is suspected of aplastic anemia. The bone marrow puncture has been administered with the diagnostic purpose. What changes in the marrow punctatum are suggested?

- A Replacement of marrow elements with adipose tissue
- B Replacement of marrow elements with fibrous tissue
- C Prevalence of megaloblasts
- D Presence of blast cells
- E Absolute lymphocytosis



A 58-year-old female patient complains of spontaneous bruises, weakness, bleeding gums, dizziness. Objectively: the mucous membranes and skin are pale with numerous hemorrhages of various time of origin. Lymph nodes are not enlarged. Ps is 100/min, AP - 110/70 mm Hg. There are no changes of internal organs. Blood test results: RBC -  $3,0 \times 10^{12}/l$ , Hb - 92 g/l, colour index - 0,9, anisocytosis, poikilocytosis, WBC -  $10 \times 10^9/l$ , eosinophils - 2%, stab neutrophils - 12%, segmented neutrophils - 68%, lymphocytes - 11%, monocytes - 7%, ESR - 12 mm/h. What laboratory test is to be determined next for making a diagnosis?

- A Platelets
- B Reticulocytes
- C Clotting time
- D Osmotic resistance of erythrocytes
- E Fibrinogen

A 47-year-old woman underwent a thyroid gland resection on account of nodular euthyroid goiter. What preparations are most likely to prevent the disease recurrence?

- A Thyroid hormones
- B Mercazolil
- C Thyrotropin
- D Antistruminum (potassium iodide)
- E Radioactive iodine

A 55 y.o. male patient complains of weakness during 2 months, pain in the right side of the thorax, cough, blood-streaked sputum. On X-ray: intensive triangle shadow in the area of lower lobe that is connected to mediastinum. What is the most likely disorder in the lungs?

- A Central cancer of lungs
- B Tuberculosis of lungs
- C Bronchiectasia
- D Pulmonary infarction
- E Pleuropneumonia

A 60 y.o. patient experiences acute air insufficiency following of the venoectomy due to subcutaneous vein thrombophlebitis 3 days ago. Skin became cyanotic, with grey shade. Marked psychomotor excitement, tachypnea, substernal pain. What postoperative complication has occurred?

- A Thromboembolia of pulmonary artery
- B Hemorrhagia
- C Hypostatic pneumonia
- D Myocardial infarction
- E Valvular pneumothorax

A 19-year-old woman complains of pain in the abdomen and joints, asks for more analgetics and somnifacient injections. The patient was examined. Gynecological and urological pathologies are absent. There are signs of previous punctures along superficial veins of the extremities. The patient does not explain the origin of punctures. Tendon reflexes of upper and lower extremities are the same, quick. Photoreaction of the pupil of the eye is weak. The tongue is grey coated. During communication the patient is affectively not even-tempered. There is diarrhea without pathologic inclusions. What tactics is necessary to improve the condition of this patient?

- A Consultation of an expert in narcology

- B Prescription of medications the patient asks for
- C Additional consultation of surgeon
- D Treatment with antibiotics
- E Consultation of infectious diseases doctor

A patient has an over a year-old history of fast progressive rheumatoid arthritis. X-raying confirms presence of marginal erosions. What basic drug would be the most appropriate in this case?

- A Methotrexate
- B Chloroquine
- C Prednisolone
- D Diclofenac sodium
- E Aspirin

A female rheumatic patient experiences diastolic thoracic wall tremor (diastolic thrill), accentuated S1 at apex, there is diastolic murmur with presystolic intensification, opening snap, S2 accent at pulmonary artery. What kind of heart disorder is observed?

- A Mitral stenosis
- B Aortic valve insufficiency
- C Pulmonary artery stenosis
- D Mitral valve insufficiency
- E Opened arterial duct

A 23-year-old patient complains of a dull ache, sensation of heaviness and distention in the epigastrium immediately after meals, foul-smelling eructation; dry mouth, empty stomach nausea, diarrhea. Objectively: the skin is pale, the patient is of thin build. Abdomen is soft on palpation, there is epigastric pain. The liver does not extend beyond the costal arch. In blood: Hb - 110 g/l, RBCs -  $3,4 \times 10^{12}/l$ , WBC count is normal. ESR - 16 mm/h. What is the most informative

study that will allow make a diagnosis?

- A Esophageal gastroduodenoscopy
- B X-ray of digestion organs
- C Study of gastric juice
- D pH-metry
- E Duodenal probing

A 49-year-old patient complains of deglutition problems, especially with solid food, hiccups, voice hoarseness, nausea, regurgitation, significant weight loss (15 kg within 2,5 months). Objectively: body weight is reduced. Skin is pale and dry. In lungs: vesicular breathing, heart sounds are loud enough, heart activity is rhythmic. The abdomen is soft, painless on palpation. Liver is not enlarged. What study is required to make a diagnosis?

- A Esophageal duodenoscopy along with biopsy
- B Clinical blood test
- C X-ray of digestive tract organs
- D X-ray in Trendelenburg's position
- E Study of gastric secretion

A 60-year-old patient has been admitted to a hospital with complaints of dyspnea, tightness in the right subcostal area, abdomen enlargement. These presentations have been progressing for a year. Heart auscultation reveals presystolic gallop rhythm. Objectively: swelling of the neck

veins, ascites, palpable liver and spleen. What disease requires differential diagnostics?

- A Constrictive pericarditis
- B Hepatocirrhosis
- C Lung cancer with invasion to the pleura
- D Chronic pulmonary heart
- E Pulmonary embolism

A 40-year-old patient, the forester, complains of severe headache, body temperature rise up to 39,5°C, trembling limbs. From the patient's history we know that he had seriously cut his hand during the dissection of a killed fox. Objectively: depressed mood. The patient asks not to turn on the light or open the door. Any noise causes apparent motor excitation. When he saw a carafe of water, he developed convulsive throat spasms. What tactics should an emergency doctor choose?

- A Deliver the patient to the infectious disease hospital
- B Deliver the patient to the resuscitation department
- C Deliver the patient to the neurological department
- D Deliver the patient to the psychiatric hospital
- E Let him stay at home and consult a psychiatrist

A 28-year-old woman has a 12-year history of chronic glomerulonephritis with latent course. Over the past six months she has developed general weakness, loss of appetite, low work performance, nausea. The patient complains of headache, pain in the joints. On examination: anemia, blood urea - 34,5 millimole/l, blood creatinine - 0,766 millimole/l, hyperkalemia. What complication has developed?

- A Chronic renal insufficiency
- B Acute renal insufficiency
- C Nephrotic syndrome
- D Renal amyloidosis
- E Pyelonephritis

A 72-year-old male had had a moderate headache. Two days later, he developed the progressing speech disorders and weakness in the right extremities. The patient has a history of myocardial infarction, arrhythmia. Study of the neurologic status revealed elements of motor aphasia, central paresis of the VII I XII cranial nerves on the right, central hemiparesis on the same side and hyperaesthesia. What is the most likely diagnosis?

- A Ischemic stroke
- B Hemorrhagic stroke
- C Transient ischemic attack
- D Epidural hematoma
- E Brain tumor

A 70 y.o. male patient with mild headaches complains of speech disorder, weakness in right limbs. There was a history of miocardial infarction and arrhythmia. On neurological examination there are elements of motor aphasia, central paresis of VII and XII cranial nerves pairs on the right side, central type of hemiparesis and hemihyperesthesia on the same side. What is the most probable diagnosis?

- A Ischemic stroke
- B Hemorrhagic stroke
- C Transitory ischemic attack
- D Epidural hematoma

E Cerebral tumor

After treating a field with pesticides a machine operator presents with great weakness, headache, nausea, vomiting, diarrhea, visual impairment, watery eyes. Objectively: the patient is excited, hypersalivation, hyperhidrosis, muscle fibrillation of tongue and eyelids are observed. Pupils are narrowed, there is tachycardia, lung auscultation reveals moist small and medium bubbling rales. In blood: changed level of cholinesterase activity. What is the most likely diagnosis?

- A Intoxication with organophosphorous pesticides
- B Intoxication with organochlorine pesticides
- C Intoxication with organomercurial pesticides
- D Intoxication with arsenic-containing pesticides
- E Intoxication with carbamic acid derivatives

A 40-year-old man is ill with autoimmune hepatitis. Blood test: A/G ratio 0,8, bilirubin – 42  $\mu\text{mol/L}$ , transaminase: ALT- 2,3 mmol g/L, AST - 1,8 mmol g/L. What is the most effective means in treatment from the given below?

- A Glucocorticoids, cytostatics
- B Antibacterial medication
- C Hepatoprotectors
- D Antiviral medications
- E Hemosorbition, vitamin therapy

A farmer hurt his right foot during working in a field and came to the emergency station. He doesn't remember when he got last vaccination and he has never served in the army. Examination of his right foot revealed a contaminated wound up to 5-6 cm long with uneven edges. The further treatment tactics will be:

- A To make an injection of tetanus anatoxin and antitetanus serum
- B To make an injection of tetanus anatoxin
- C To make an injection of antitetanus serum
- D Surgical debridement only
- E To administer an antibiotic

A 35-year-old patient has been admitted to a hospital for pain in the left sternoclavicular and knee joints, lumbar area. The disease has an acute character and is accompanied by fever up to 38°C. Objectively: the left sternoclavicular and knee joints are swollen and painful. In blood: WBCs -  $9,5 \times 10^9/l$ , ESR - 40 mm/h, CRP - 1,5 millimole/l, fibrinogen - 4,8 g/l, uric acid - 0,28 millimole/l. Examination of the urethra scrapings reveals chlamydia. What is the most likely diagnosis?

- A Reiter's syndrome
- B Rheumatic arthritis
- C Gout
- D Bechterew's disease
- E Rheumatoid arthritis

A 20 daily y.o. female patient is suffering from chronic bronchitis. Recently there has been production about 0,5 L of purulent sputum with maximum discharge in the morning. Fingers are like "drum sticks", there are "watching glass" nails. What is the most probable diagnosis?

- A Bronchiectasia
- B Pneumonia

- C Chronic bronchitis
- D Gangrene of lungs
- E Tuberculosis

Topographic percussion of lungs in a patient who got a serious job-related barotrauma revealed that the lower lungs borders were located one rib below normal, there was a significant increase in both lungs height and Kronig's isthmus. What disease should be suspected in the first place?

- A Pulmonary emphysema
- B Exudative pleuritis
- C Chronic bronchitis
- D Bronchial asthma
- E Pneumothorax

An 18 y.o. girl complains of weakness, dizziness, loss of appetite, menorrhagia. There are many-coloured petechiae on the skin of the upper extremities. Blood test: Hb- 105 g/l; RBC-  $3,2 \times 10^{12}/L$ ; C.I.- 0,95; thromb.-  $20 \times 10^9/L$ . The sedimentation time according to Lee White is 5'; hemorrhagia duration according to Duke is 8', "pinch and tourniquet" test is positive. What is the most probable diagnosis?

- A Idiopathic thrombocytopenic purpura
- B Hemophilia
- C Hemorrhagic diathesis
- D Iron deficiency anemia
- E Marchiafava-Micheli's disease

A 28 y.o. male patient was admitted to the hospital because of high temperature  $39^{\circ}C$ , headache, generalized fatigue, constipation, sleep disorder for 9 days. There are sporadic roseolas on the abdomen, pulse- 78 bpm, liver is enlarged for 2 cm. What is the most probable diagnosis?

- A Abdominal typhoid
- B Typhus
- C Sepsis
- D Brucellosis
- E Leptospirosis

A 50-year-old patient complains about having pain attacks in the right subcostal area for about a year. He pain arises mainly after taking fattening food. Over the last week the attacks occurred daily and became more painful. On the 3rd day of hospitalization the patient presented with icteritiousness of skin and scleras, light-colored feces and dark urine. In blood: neutrophilic leukocytosis -  $13,1 \times 10^9/l$ , ESR- 28 mm/h. What is the most likely diagnosis?

- A Chronic calculous cholecystitis
- B Chronic recurrent pancreatitis
- C Fatty degeneration of liver
- D Chronic cholangitis, exacerbation stage
- E Hypertensive dyskinesia of gallbladder

A 20 y.o. patient with bronchial asthma experiences dyspnea attacks 3-4 times a week. Nocturnal attacks are 1 time a week. FEV1- 50% of necessary figures, during the day it's variations is 25%. What is the severity of bronchial asthma condition?

- A Moderate severity condition
- B Mild condition

- C Serious condition
- D Asthmatic status
- E Intermittent flow

A 40 y.o. man complains of headache in occipital area. On physical examination: the skin is pale; face and hand edema, BP- 170/130 mm Hg. On EchoCG: concentric hypertrophy of the left ventricle. Ultrasound examination of the kidneys reveals thinned cortical layer. Urine analysis shows proteinuria of 3,5 g/day. What is the probable diagnosis?

- A Essential arterial hypertension
- B Chronic pyelonephritis
- C Chronic glomerulonephritis
- D Polycystic disease of the kidneys
- E Cushing's disease

A 27-year-old patient has a severe headache, nausea and vomiting. Objectively: body temperature is 38,9°C, there is a haemorrhagic stellate rash on the legs. The patient takes meningeal pose in bed. Meningeal symptoms are strongly positive. Deep reflexes are brisk, uniform. Pathological reflexes are absent. It has been suspected that the patient has epidemic cerebrospinal meningitis. Which of additional tests should be performed in the first place to verify the diagnosis?

- A Lumbar puncture
- B Echoencephalography
- C Rheoencephalography
- D Electroencephalography
- E Survey craniogram

After a serious nervous stress a 35-year-old patient has developed on the dorsal surface of hands redness and swelling that were later replaced by small inflammatory nodules, vesicles and following erosion with a significant serous discharge. The process is accompanied by severe itching. What is the most likely diagnosis?

- A True eczema
- B Allergic dermatitis
- C Microbial eczema
- D Simple contact dermatitis
- E Toxicoderma

A 36-year-old patient complains of skin rash that appeared a week ago and doesn't cause any subjective problems. Objectively: palm and sole skin is covered with multiple lenticular disseminated papules not raised above the skin level. The papules are reddish, dense on palpation and covered with keratinous squamae. What is the provisional diagnosis?

- A Secondary syphilis
- B Verrucosis
- C Palmoplanar psoriasis
- D Palmoplanar rubrophytosis
- E Palm and sole callosity

In the morning a patient had nausea, abdominal discomfort, single vomiting, dry mouth. In the evening, the patient presented with the increasing general weakness, double vision, difficult swallowing of solid food. Objectively: ptosis, mydriasis, anisocoria, absence of gag and pharyngeal reflex, dry mucous membranes. The previous evening the patient had dinner with

canned food and alcohol. What is the presumptive diagnosis?

- A Botulism
- B Food toxicoinfection
- C Intoxication with unknown poison
- D Acute ischemic stroke
- E Poliomyelitis

A 30-year-old patient complains of paroxysmal abdominal pain, frequent liquid stools up to 10 times a day. Throughout the first 3 days he had a fever, since the 2nd day of disease there were scant liquid stools mixed with mucus. On palpation: tenderness of all colon segments. Sigmoid colon was found spastic. What is your provisional diagnosis?

- A Acute dysentery
- B Intestinal amebiasis
- C Salmonellosis
- D Cholera
- E Balantidiasis

A 38-year-old woman experiences episodic increases in arterial pressure up to 240/120 mm Hg, which is accompanied by nausea, vomiting, tachycardia, increased sweating, hyperglycemia. The attack is usually followed by the excessive urination. Renal sonography reveals an additional formation adjacent to the upper pole of the right kidney and possibly belonging to the adrenal gland. What laboratory test will allow to clarify the diagnosis?

- A Determination of urinary excretion of catecholamines and vanillylmandelic acid
- B Blood test for insulin and C-peptide
- C Estimation of glomerular filtration rate by measuring endogenous creatinine clearance
- D Blood test for thyroxine and thyrotrophic hormone
- E Blood test for renin level

A 32-year-old patient has a 3-year history of asthma attacks, that can be hardly stopped with berotec. Over a few last months he has experienced pain in the joints and sensitivity disorder of legs and feet skin. Ps - 80/min, AP - 210/100 mm Hg. In blood: eosinophilia at the rate of 15%. What disease can be suspected in this case?

- A Periarteritis nodosa
- B Systemic lupus erythematosus
- C Systemic scleroderma
- D Dermatomyositis
- E Wegener's disease

3 hours before, a 68-year-old male patient got a searing chest pain radiating to the neck and left forearm, escalating dyspnea. Nitroglycerin failed to relieve pain but somewhat reduced dyspnea. Objectively: there is crimson cyanosis of face. Respiratory rate is 28/min. The patient has vesicular breathing with isolated sibilant rales. Heart sounds are muffled, with a gallop rhythm. Ps - 100/min, AP - 100/65 mmHg. ECG shows negative T-wave in V2-V6 leads. What drug can reduce the heart's need for oxygen without aggravating the disease?

- A Isosorbide dinitrate
- B Corinfar
- C Atenolol
- D Streptokinase
- E Aminophylline

A 46-year-old patient complains of sudden palpitation, which is accompanied by pulsation in the neck and head, fear, nausea. The palpitation lasts for 15-20 minutes and is over after straining when holding her breath. What kind of cardiac disorder may be suspected?

- A An attack of supraventricular paroxysmal tachycardia
- B An attack of ventricular paroxysmal tachycardia
- C An attack of atrial flutter
- D An attack of ciliary arrhythmia
- E An attack of extrasystolic arrhythmia

A 5-grade pupil complains about extensive skin rash accompanied by intensive itch, especially at night. Objectively: there are small red papules set mostly in pairs in the region of interdigital folds on both hands, on the flexor surface of radicular articulations, abdomen and buttock skin as well as internal surface of thighs. In the centre of some papules vesicles or serohaemorrhagic crusts can be seen. There are multiple excoriations. What is the most likely diagnosis?

- A Scabies
- B Dermatitis
- C Ringworm of body
- D Toxicoderma
- E Eczema

A welder at work got the first-degree burns of the middle third of his right shin. 5 days later the skin around the burn became edematous and itchy. Objectively: on a background of a well-defined erythema there is polymorphic rash in form of papules, vesicles, pustules, erosions with serous discharge. What is the most likely diagnosis?

- A Microbial eczema
- B True eczema
- C Toxicoderma
- D Occupational eczema
- E Streptococcal impetigo

A 58-year-old patient has a 3-year history diabetes mellitus type II. He has been keeping to a diet and regularly taking glyburide. He has been delivered to a hospital on an emergency basis for acute abdomen. Objectively: the patient is of supernutrition type. The skin is dry. In the lungs vesicular breathing can be auscultated. Heart sounds are regular, 90/min. AP- 130/70 mm Hg. The symptom of "wooden belly" is visible. Blood sugar - 9,8 millimole/l. The patient has indication for laparotomy. What is the most appropriate way of further treatment of diabetes?

- A To administer short insulin
- B To continue taking glyburide
- C To administer Semilong to be taken in the morning and insulin - in the evening
- D To administer 1 tablet of Glurenorm three times a day
- E To administer 1 tablet of Maninil three times a day

A 56 y.o. man, who has taken alcoholic drinks regularly for 20 years, complains of intensive girdle pain in the abdomen. Profuse nonformed stool 2-3- times a day has appeared for the last 2 years, loss of weight for 8 kg for 2 years. On examination: abdomen is soft, painless. Blood amylase - 12g/L. Feces examination-neutral fat 15 g per day, starch grains. What is the most reasonable treatment at this stage?

- A Pancreatine
- B Contrykal
- C Aminocapron acid



- D Levomicytine
- E Imodium

A 43-year-old female patient complains of eruption on her right leg skin, pain, weakness, body temperature rise up to 38°C. The disease is acute. Objectively: there is an edema on the right leg skin in the region of foot, a well-defined bright red spot in form of flame tips which feels hot. There are isolated vesicles in focus. What is your provisional diagnosis?

- A Erysipelas
- B Microbial eczema
- C Contact dermatitis
- D Toxicoderma
- E Haemorrhagic vasculitis

A 45-year-old patient complains of some painless nodular elements tending to peripheral growth and fusion. He has a 2-year history of this disease. Aggravation takes place mainly in spring. In anamnesis: the patient's father had similar skin lesions. Objectively: pathological elements look like guttate and nummular nodules, plaques covered with white scales. What is your provisional diagnosis?

- A Psoriasis
- B Lichen ruber planus
- C Neurodermitis
- D Pityriasis rosea
- E Seborrheic eczema

A 47-year-old patient came to see a doctor on the 7th day of disease. The disease developed very fast: after the chill body temperature rose up to 40°C and lasted up to 7 hours, then it dropped abruptly, which caused profuse sweat. There were three such attacks occurring once in two days. Two days ago the patient arrived from Africa. Objectively: pale skin, subicteric sclera, significantly enlarged liver and spleen. What is the cause of fever attacks in this disease?

- A Erythrocytic schizogony
- B Tissue schizogony
- C Exotoxin of a causative agent
- D Endotoxin of a causative agent
- E Gametocytes

On the 2nd day of disease a 27-year-old patient complains of unbearable headache, repeated vomiting. Objectively: the patient is in a grave condition. He is conscious but adynamic. Lies in a forced position with his head thrown back. There is no skin rash. Nuchal muscles are evidently rigid, there are Kernig's and Brudzinski's signs.  $t_0 - 39,5^\circ\text{C}$ , Ps -120/min, AP - 130/80 mm Hg. The leading syndrome of this disease is caused by:

- A Liquor hypertension
- B Liquor hypotension
- C Affection of the cranial nerve nuclei
- D Haemorrhages in the adrenal glands
- E Hyperthermy

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leading syndrome of this disease is caused by:

- A Liquor hypertension
- B Liquor hypotension
- C Affection of the cranial nerve nuclei
- D Haemorrhages into the adrenal glands
- E Hyperthermy

A 43 y.o. woman complains of shooting heart pain, dyspnea, irregularities in the heart activity, progressive fatigue during 3 weeks. She had acute respiratory disease a month ago. On examination: AP- 120/80 mm Hg, heart rate 98 bpm, heart borders +1,5 cm left side, sounds are muffled, soft systolic murmur at apex and Botkin's area; sporadic extrasystoles. Liver isn't palpated, there are no edema. Blood test: WBC-  $6,7 \times 10^9/L$ , sedimentation rate- 21 mm/hour. What is the most probable diagnosis?

- A Acute myocarditis
- B Climacteric myocardiodystrophia
- C Ichemic heart disease, angina pectoris
- D Rheumatism, mitral insufficiency
- E Hypertrophic cardiomyopathy

A 63-year-old female complains of general weakness, a feeling of heaviness, compression in the epigastrium, postprandial fullness, nausea, belching after meals. These symptoms have been observed for about 15 years. Objectively: body temperature is  $36,4^{\circ}C$ , respiratory rate - 20/min, Ps - 88/min, blood pressure - 115/75 mm Hg. Skin and mucous membranes are pale. Blood test results: RBC -  $2,0 \times 10^{12}/l$ , Hb - 100 g/l. Tests revealed parietal-cell antibodies. What is the most likely reason for the development of anemia in this patient?

- A Production of antibodies to intrinsic factor
- B Disruption of hemoglobin synthesis
- C Disruption of erythropoietin synthesis
- D Impaired iron absorption
- E Increased loss of iron

A 37-year-old woman is sick with bronchial asthma for 15 years. Recently asthmatic attacks occur 4-5 times per week, night attacks -2-3 times per month. To stop attacks, the patient takes salbutamol. On physical exam: condition is relatively satisfactory. RR - 20/min, Ps is 76 bpm, BP - 120/80 mm Hg. Respiration in lungs is vesicular. Cardiac sounds are muted, rhythm is normal. What medication should be prescribed to prevent attacks of bronchial asthma on the first stage?

- A Cromoglycat sodium
- B Regular dose of salbutamol
- C Inhalation corticosteroids
- D Tabletted corticosteroids
- E Injection of corticosteroids

A 52 y.o. male patient has become ill gradually. There is pain in the left side of the thorax during 2 weeks, elevation of temperature till  $38-39^{\circ}C$ . On examination: left chest side falls behind in breathing movement no voice tremor over the left lung. Dullness that is more intensive in lower parts of this lung. Right heart border is deviated outside. Sharply weakened breathing over the left lung, no rales. Heart sounds are muffled, tachycardia. What is the most probable diagnosis?

- A Exudative pleuritis
- B Spontaneous pneumothorax
- C Atelectasis of lung

- D Cirrhotic tuberculosis
- E Infarction-pneumonia

A 50-year-old patient was hospitalized in severe condition with complaints of chills, high grade temperature, dryness in the mouth, multiple vomiting, pain in the epigastrium, frequent watery, foamy, dirty green color stool of unpleasant odor. The tongue and the skin are dry. BP - 80/40 mm Hg. What first aid is necessary for the patient?

- A Intravenous injection of sodium solutions
- B Fresh-frozen plasma transfusion
- C To prescribe polyglucin
- D Sympathomimetics
- E Hemosorbtion

A 42-year-old female patient suffers from micronodular cryptogenic cirrhosis. Over the last week her condition has deteriorated: she developed convulsions, mental confusion, progressing jaundice. What study may give reasons for such aggravation?

- A Determination of serum ammonia
- B Determination of cholesterol ethers
- C Determination of alpha-phetoprotein
- D Determination of ALAT and ASAT
- E Determination of alkaline phosphatase

A patient has chronic heart failure of the II stage. He takes furosemide regularly three times a week. He had developed bronchopneumonia and had been administered combined pharmacotherapy. On the fifth day of therapy the patient complained of hearing impairment. What drug coadministered with furosemide might have caused the hearing loss?

- A Gentamicin
- B Linex
- C Nystatin
- D Tavegil
- E Mucaltin

A 60-year-old female patient complains of recurrent pain in the proximal interphalangeal and wrist joints, their periodic swelling and reddening that have been observed for 4 years. X-ray picture represents changes in form of osteoporosis, joint space narrowing and single usuras. What is the most likely diagnosis?

- A Rheumatoid arthritis
- B Osteoarthritis
- C Gout
- D Pseudogout
- E Multiple myeloma

A 37-year-old woman complains of generalized fatigue, irritability, dysphagia, chalk hunger. On physical exam: t- 36,5oC, respirations - 20/min, Ps - 96 bpm, BP - 110/70 mm Hg. Satisfactory nourishment. The skin and visible mucous membranes are pale. Blood test: Hb -70g/L, erythrocytes -  $3,4 \times 10^{12}/L$ , CI - 0,7, reticulocytes - 2%, leucocytes -  $4,7 \times 10^9/L$ , eosinophilis. - 2%, band neutrophils- 3%, segmented neutrophils - 64%, lymphocytes – 26%, monocytes - 5%, ESR - 15 mm/min. Serum ferrum -  $7,3 \mu\text{mol}/L$ , total protein - 70g/L. Deficit of what factor caused the development of the disease?

- A Ferrum

- B Vitamin B6
- C Vitamin B12
- D Protein
- E Folic acid

A 28-year-old patient has been hospitalized for the pain in the epigastric region. He has a 10-year history of duodenal ulcer (DU). Recently, the pain character has changed: it became permanent, persistent, irradiating to the back. There are general weakness, dizziness, fatigue. The patient has put off weight. Objectively: HR- 68/min, AP- 120/80 mm Hg. What is most likely cause of deterioration?

- A Penetration
- B Haemorrhage
- C Perforation of duodenal wall
- D Exacerbation of duodenal ulcer
- E Stenosis development

A 57-year-old male patient complains of dyspnea on exertion, heaviness in the right hypochondrium and shin edemata towards evening. Objectively: temperature - 38,1°C, HR- 20/min, HR=Ps=92/min, AP- 140/90 mm Hg. There is apparent kyphoscoliosis. In the lungs single dry rales can be auscultated. Heart sounds are muffled, rhythmic. ECG: Rv1+Sv5=15 mm. X-ray picture shows the bulging of pulmonary artery cone, right ventricle enlargement. What is the most likely cause of this condition?

- A Pulmonary heart
- B Atherosclerotic cardiosclerosis
- C Dilatation cardiomyopathy
- D Mitral stenosis
- E Primary pulmonary hypertension

A 30-year-old female patient has been delivered to a hospital for sudden dyspnea progressing to asthma, sensation of having a "lump in the throat", hand tremor, fear of death. The attack has developed for the first time and is associated with a strong emotion. There is no previous history. Objectively: respiratory rate - 28/min, Ps - 104/min, rhythmic, AP - 150/85 mm Hg. The patient has rapid superficial vesicular breathing with extended expiration. Percussion findings: heart borders are not changed. Cardiac sounds are loud, rhythmic. What is the most likely diagnosis?

- A Neurocirculatory asthenia
- B Bronchial asthma
- C Hypertensive crisis
- D Cardiac asthma
- E Thyrotoxic crisis

A 24-year-old emotionally-labile woman presents with irritation, depressed mood, palpitation, shooting pain in the heart area, generalized fatigue following the divorce. On examination: palm hyperhidrosis, pulse rate- 72-78 bpm, labile, heart without changes. ECG is normal. What is the most probable pathology in this case?

- A Neurasthenia
- B Ipochondric neurosis
- C Compulsive neurosis
- D Schizophrenia
- E Depressive neurosis

A 30-year-old woman with a long history of chronic pyelonephritis complains about considerable weakness, sleepiness, decrease in diuresis down to 100 ml per day. AP- 200/120 mm Hg. In blood: creatinine - 0,62 millimole/l, hypoproteinemia, albumines - 32 g/l, potassium - 6,8 millimole/l, hypochromic anemia, increased ESR. What is the first step in the patient treatment tactics?

- A Haemodialysis
- B Antibacterial therapy
- C Enterosorption
- D Haemosorption
- E Blood transfusion

A patient had macrofocal myocardial infarction. He is overweight for 36%, AP is 150/90 mm Hg, blood sugar- 5,9 mmol/L, general cholesterol- 4,9 mmol/L, uric acid- 0,211 mmol/L. Which risk factor should be urgently eradicated during the secondary prevention?

- A Obesity
- B Arterial hypertension
- C Hyperglycemia
- D Hypercholesterolemia
- E Hyperuricemia

A 36-year-old female patient complains of bruises on the body, gingival haemorrhage, general weakness. A month ago she had a severe domestic poisoning with some pesticide (the patient can not remember the name). She has a 7-year record of working in contact with petroleum products, particularly benzene. In blood: RBCs -  $3,2 \times 10^{12}/l$ , WBCs -  $2,7 \times 10^9/l$ , thrombocytes –  $70 \times 10^9/l$ . What is the most likely pathology?

- A Benzene intoxication
- B Organophosphorus pesticide intoxication
- C Organochlorine pesticide Intoxication
- D Mercury-containing pesticide intoxication
- E Chronic fatigue Syndrome

While staying in a stuffy room a 19-year-old emotionally labile girl developed severe weakness, dizziness, blackout, nausea and loss of consciousness without convulsions. Objectively: the patient is unconscious, the skin is pale, extremities are cold. AP- 90/60 mm Hg, Ps- 96/min, deficient, breathing is shallow. Pupillary and tendon reflexes are present. There are no pathological signs. What is the most likely diagnosis?

- A Syncope
- B Vegetovascular paroxysm
- C Epileptic attack
- D Hysterical neurosis
- E Transient ischemic attack

A patient complains of frequent, bulky, frothy stools with greenish mucus, cramping pain in the umbilical region, abdominal murmur, body temperature at the rate of 39°C. The patient associates the disease with consumption of soft-boiled eggs. What is the most likely pathogen?

- A Salmonella
- B Yersinia
- C Shigella
- D Enteropathogenic E.Coli
- E Vibrio cholerae El Tor

A 40-year-old female patient complains of headache, dizziness, muscle weakness, occasional cramps in the extremities. She has been taking antihypertensive medications for 10 years. AP-180/100 mm Hg. Blood potassium - 1,8 millimole/l, sodium - 4,8 millimole/l. In urine: alkaline reaction, the relative density - 1012, protein and sugar are not found, WBCs - 3-4 in the field of vision, RBCs - 1-2 in the field of vision. Conn's syndrome is suspected. Which drug should be chosen for the treatment of arterial hypertension?

- A Spironolactone
- B Propanolol
- C Enalapril
- D Hydrochlorothiazide
- E Clonidine

An 18-year-old patient presents no problems. Percussion reveals that heart borders are displaced to the right and left by 1 cm, there is a coarse systolic murmur with its epicenter within the 4th intercostal space on the left. What is the most informative examination to confirm the clinical diagnosis?

- A Ventriculography
- B ECG
- C PCG
- D Echocardiography
- E Polycardiography

A 56-year-old patient complains of having persistent chest pain on the right for the last 2 months. The pain is not associated with respiration. He also complains of cough with blood-streaked sputum, weakness, decreased performance, fatigue. Chest radiograph shows a globular shade of 4x6 cm connected to the root of the lung in the lower part of the right lung. What is the most likely diagnosis?

- A Peripheral lung cancer
- B Metastasis
- C Lung abscess
- D Pneumonia
- E Tuberculoma

A 18-year-old patient had subtotal strumectomy due to malignant capillary cystadenoma of the thyroid gland. In 2 months there was a suspicion of metastasis presence in the lungs. What roentgenological method is to be used first?

- A Roentgenography of lungs
- B Roentgenoscopy of lungs
- C Angiopneumonography
- D Bronchography
- E Bronchoscopy

A 58-year-old patient was diagnosed basal-cell skin cancer, 1st stage. Tumor is up to 1 cm in size and with up to 0,5 cm deep infiltration in tissues. Tumor is localized in the right nasolabial area. Choose the most optimal method of treatment.

- A Short-distance roentgenotherapy
- B Long-distance roentgenotherapy
- C Long-distance gamma therapy
- D Chemotherapy
- E Surgical treatment

A 27-year-old patient complains of nasal haemorrhages, multiple bruises on the anterior surface of the trunk and extremities, sudden weakness. In blood: Hb- 74 g/l, reticulocytes - 16%, RBCs -  $2,5 \times 10^{12}/l$ , platelets –  $30 \times 10^9/l$ , ESR- 25 mm/h. What is the most effective measure for the treatment of thrombocytopenia?

- A Splenectomy
- B Iron preparations
- C Hemotransfusion
- D Cytostatics
- E Vitamin B12

2 days ago a patient presented with acute pain in the left half of chest, general weakness, fever and headache. Objectively: between the 4 and 5 rib on the left the skin is erythematous, there are multiple groups of vesicles 2-4 mm in diameter filled with transparent liquid. What disease are these symptoms typical for?

- A Herpes zoster
- B Pemphigus
- C Herpes simplex
- D Streptococcal impetigo
- E Herpetiform Dühring's dermatosis

A woman while working in vegetable garden developed severe pain in the loin. Lasague's and Nery tension signs are obviously marked on the right. Lumbar lordosis is smoothed, movements are harshly restrained in lumbar part of the spine. Right ankle (Achilles) reflex is absent. What kind of disease can it be?

- A Lumbar-sacral radiculitis
- B Lumbalgia
- C Hepatic colic
- D Renal colic
- E Neuritis of femoral nerve

After lifting a load a patient felt undurable pain in the loin. He was diagnosed with acute lumbosacral radiculitis. Which of the following is contraindicated for this patient?

- A Warming procedures
- B Dehydrating drugs
- C Analgetics
- D Vitamins of B group
- E Intravenous injection of aminophylline

An unconscious 35-year-old patient has been delivered by an ambulance to the intensive care unit. Objectively: the patient is in semicoma. Moderate mydriasis is present. The reaction of pupils to light is reduced. The reaction to verbal instructions is missing. AP is 150/100 mm Hg, there is tachycardia. Blood contains methanol. What antidote should be administered?

- A Ethanol
- B Unithiol
- C Thiamine chloride
- D Tavegil
- E Naloxone

After lifting a load, a 36-year-old male patient has experienced a severe pain in the lumbar region, which spread to the right leg and was getting worse when he moved his foot or coughed.

Objectively: the long back muscles on the right are strained. Achilles jerk is reduced on the right. There is a pronounced tenderness of paravertebral points in the lumbar region. The straight leg raise (Lasegue's sign ) is positive on the right. What additional tests should be performed in the first place?

- A Radiography of the spinal column
- B Computed tomography
- C Magnetic resonance tomography
- D Electromyography
- E Lumbar puncture

A female, aged 20, after smoking notices a peculiar inebriation with the feeling of burst of energy, elation, unreality and changing of surroundings: the world gets full of bright colours, the objects change their dimensions, people's faces get cartoon features, loss of time and space judgement. What is the most likely diagnosis?

- A Cocainism
- B Morphinism
- C Barbiturism
- D Nicotinism
- E Cannabism

A 75 y.o patient can not tell the month, date and season of the year. After long deliberations she manages to tell her name. She is in irritable and dissatisfied mood. She always carries a bundle with belongings with her, hides a parcel with bread, shoes in her underwear in her bosom as well as "invaluable books". What is the most probable diagnosis?

- A Senile dementia
- B Atherosclerotic (lacunar) dementia
- C Presenile melancholia
- D Behaviour disorder
- E Dissociated personality (psychopathy)

A 17-year-old male patient consulted a therapist about malaise, chills, runny nose, aching muscles and joints, nausea and diarrhea. The patient asks to prescribe him a lot of painkillers and sedatives (tramadol or solpadein that help the best, and diazepam). Pharyngeal mucosa is pale pink, clean. Auscultation reveals vesicular breathing. Tachycardia is present. The pupils are dilated, there is sluggish response to light. There are injection marks on the forearm skin. During examination, the patient's manner is vulgar, irritable, rude and untruthful. Make a diagnosis:

- A Opioid addiction
- B Painkillers addiction
- C Sedative drug addiction
- D Acute respiratory disease
- E Food-borne toxic infection

While lifting a heavy load a 39-year-old patient suddenly felt a severe headache, pain in the interscapular region, and started vomiting. Objectively: the pulse is rhythmic, 60/min, AP-180/100 mm Hg. The patient is agitated. He presents with photophobia, hyperacusis. There are positive Kernig's and Brudzinski's signs on both sides. In blood: WBCs –  $10 \times 10^9/l$ . CSF is bloody, cytosis is 240/3. What is the most likely diagnosis?

- A Subarachnoid haemorrhage
- B Sympathoadrenal crisis



- C Acute hypertonic encephalopathy
- D Meningococcal meningitis
- E Ischemic stroke

A 26-year-old male patient complains of piercing pain during breathing, cough, dyspnea. Objectively:  $t = 37.3^{\circ}\text{C}$ , respiration rate - 19/min, heart rate = 92/min; AP- 120/80 mm Hg. Vesicular respiration. In the inferolateral parts of chest auscultation in both inspiration and expiration phase revealed noise that was getting stronger at phonendoscope pressing and can be still heard after cough. ECG showed no pathological changes. What is the most likely diagnosis?

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

A 45-year-old patient, a sailor, was hospitalized on the 2nd day of the disease. A week ago he returned from India. Complains of body temperature of  $41^{\circ}\text{C}$ , severe headache, dyspnea, cough with frothy rusty sputum. Objectively: the patient is pale, mucous membranes are cyanotic, breathing rate is 24/min, tachycardia is present. In lungs: diminished breath sounds, moist rales over both lungs, crepitation. What is the most likely diagnosis?

- A Pneumonic plaque
- B Miliary tuberculosis
- C Influenza
- D Ornithosis
- E Sepsis

HIV displays the highest tropism towards the following blood cells:

- A T-helpers
- B T-suppressors
- C T-killers
- D Thrombocytes
- E Erythrocytes

A 14-year-old patient with signs of internal haemorrhage has been taken to a hospital after a fight. He has had haemophilia A since childhood. He has been diagnosed with retroperitoneal hematoma. What should be administered in the first place?

- A Cryoprecipitate
- B Aminocaproic acid
- C Dried plasma
- D Platelet concentrate
- E Fresh blood

A 58-year-old patient complains of a headache in the occipital region, nausea, choking, oploptentes. The presentations appeared after a physical exertion. Objectively: the patient is excited. Face is hyperemic. Skin is pale. Heart sounds are regular, the 2nd aortic sound is accentuated. AP- 240/120 mm Hg, HR- 92/min. Auscultation reveals some fine moist rales in the lower parts of the lungs. Liver is not enlarged. ECG shows signs of hypertrophy and left ventricular overload. What is the most likely diagnosis?

- A Complicated hypertensive crisis, pulmonary edema
- B Acute myocardial infarction, pulmonary edema
- C Bronchial asthma exacerbation
- D Uncomplicated hypertensive crisis
- E Community-acquired pneumonia

A 37-year-old patient complains of pain in the lumbar spine that is getting stronger during walking; restricted mobility, edema of the right side of abdomen. He has a history of focal tuberculosis. X-ray picture shows the destruction of the adjacent surfaces of the 1-2 vertebral bodies of the lumbar spine, vertebral body height is decreased, intervertebral foramen is undetectable. Abdominal ultrasound reveals a 15x20 cm formation in the retroperitoneal space, there are echo signals of fluid presence. What is the most likely diagnosis?

- A Tuberculous spondylitis of the lumbar spine
- B Fracture of the 1-2 vertebral bodies of the lumbar spine
- C Spinal metastases
- D Spondylolisthesis of the lumbar spine
- E Osteochondrosis

A 43-year-old female patient was delivered to the hospital in grave condition. She has a history of Addison's disease. The patient had been regularly taking prednisolone but a week before she stopped taking this drug. Objectively: sopor, skin and visible mucous membranes are pigmented, skin and muscle turgor is decreased. Heart sounds are muffled, rapid. AP- 60/40 mm Hg, heart rate - 96/min. In blood: Na - 120 millimole/l, K - 5,8 millimole/l. Development of this complication is primarily caused by the deficit of the following hormone:

- A Cortisol
- B Corticotropin (ACTH)
- C Adrenaline
- D Noradrenaline
- E Adrostendion

In a cold weather, the emergency room admitted a patient pulled out of the open water. There was no respiratory contact with the water. The patient is excited, pale, complains of pain, numbness of hands and feet, cold shiver. Respiratory rate is 22/min, AP - 120/90 mm Hg, Ps - 110/min, rectal temperature is 34,5oC. What kind of warming is indicated for this patient?

- A Passive warming
- B Infusion of 37oC solutions
- C Hot compresses
- D Warm bath
- E Hemodialysis with blood warming

Survey radiograph of a 52-year-old worker of an agglomeration plant (28 years of experience, the concentration of metal dust is 22-37 mg/m<sup>3</sup>) shows mildly pronounced interstitial fibrosis with diffused contrast well-defined small nodular shadows. The patient has no complaints. Pulmonary function is not compromised. What is the provisional diagnosis?

- A Siderosis
- B Silicosis
- C Anthraco-silicatosi
- D Silicatosi
- E Anthracosis

A 60-year-old patient complains of nearly permanent sensation of heaviness and fullness in the epigastrium, that increases after eating, foul-smelling eructation, occasional vomiting with food consumed 1-2 days ago, weight loss. 12 years ago he was found to have an ulcer of pyloric channel. The patient has taken ranitidine for periodic hunger pain. The patient's condition has been deteriorating over the last 3 months. Objectively: splashing sound in the epigastrium is present. What kind of complication is it?

- A Pyloric stenosis
- B Penetration of gastric ulcer
- C Functional pyloric spasm
- D Foreign body in the stomach (bezoar)
- E Malignization of gastric ulcer

A 52-year-old patient works as a secretary and has 30 year record of service. She complains of spasms in her right hand during working and inability to type and write. Up to 80% of her work involves hand load. The patient has been presenting with these symptoms for 2 years.

Objectively: the right hand is tense, there is an increase in muscle tone, attempts to write cause spasms. Examination revealed no pathological changes of CNS. What is the most likely diagnosis?

- A Spastic form of coordination neurosis
- B Neuralgic form of coordination neurosis
- C Paretic form of coordination neurosis
- D Hysterical neurosis
- E Chronic manganese intoxication

Examination of an electric welder with 15 years of service record revealed dry rales in the lower lung fields. Radiograph shows diffuse nodules sized 3-4 mm in the middle and lower lung fields. What disease can be suspected?

- A Heavy-metal coniosis
- B Silicosis
- C Silicatosis
- D Carbon pneumoconiosis
- E Bronchitis

A 22-year-old vegetarian patient with signs of malnutrition consulted a doctor about smell and taste distortion, angular stomatitis. Objectively: expressively blue sclerae. The patient was diagnosed with iron deficiency anemia. What is the dominating clinical syndrome?

- A Sideropenic
- B Anaemic
- C Haemologic
- D Haemolytic
- E Myelodysplastic

A patient complains of retrosternal pain, difficult swallowing, over 10 kg weight loss within three months, general weakness. In blood: hypochromic anaemia, neutrophilic leukocytosis. In feces: weakly positive Gregersen's reaction. On esophagram a filling defect with ill-defined serrated edges shows up along a large portion of the esophagus. What is the most likely diagnosis?

- A Esophageal carcinoma
- B Benign tumour
- C Esophageal achalasia
- D Peptic ulcer
- E Sideropenic dysphagia

A 12-year-old boy periodically has short episodes (10-15 seconds) of a brief loss of awareness with a dazed look and eyes stare in an upright position, blank expression of face, absence of motions and subsequent amnesia. Specify the described state:

- A Absence seizure
- B Obnubilation
- C Trance
- D Fugue
- E Sperrung

A 19-year-old male patient complains of intense pain in the left knee joint. Objectively: the left knee joint is enlarged, the overlying skin is hyperemic, the joint is painful on palpation. Blood test results: RBC -  $3,8 \times 10^{12}/l$ , Hb - 122 g/l, lymphocytes -  $7,4 \times 10^9/l$ , platelets -  $183 \times 10^9/l$ . ESR - 10 mm/h.

Duke bleeding time is 4 minutes, Lee-White clotting time - 24 minutes. A-PTT is 89 s. Rheumatoid factor is negative. What is the most likely diagnosis?

- A Hemophilia, hemarthrosis
- B Werlhof's disease
- C Rheumatoid arthritis
- D Thrombocytopathy
- E Hemorrhagic vasculitis, articular form

Explosion of a tank with benzene at a chemical plant has killed and wounded a large number of people. There are over 50 victims with burns, mechanical injuries and intoxication. Specify the main elements of medical care and evacuation of population in this situation:

- A Sorting, medical assistance, evacuation
- B Sorting, evacuation, treatment
- C Medical assistance, evacuation, isolation
- D Isolation, rescue activity, recovery
- E Sorting, recovery, rescue activity

An emergency doctor has diagnosed a 32-year-old woman with generalized convulsive status epilepticus. The deterioration in the patient's condition is caused by a sudden gap in the epilepsy treatment. Specify the doctor's further tactics:

- A Hospitalization in the intensive care unit
- B Hospitalization in the department of neurology
- C Hospitalization in the department of neurosurgery
- D Outpatient monitoring by a neuropathologist
- E Outpatient monitoring by a neurosurgeon

A 63-year-old male patient with persistent atrial fibrillation complains of moderate dyspnea. Objectively: peripheral edemata are absent, vesicular breathing is present, heart rate - 72/min, AP - 140/90 mm Hg. What combination of drugs will be most effective for the secondary prevention of heart failure?

- A Beta-blockers, ACE inhibitors
- B Beta-blockers, cardiac glycosides
- C Cardiac glycosides, diuretics
- D Cardiac glycosides, ACE inhibitors
- E Diuretics, beta-blockers

A 57-year-old male patient had an attack of retrosternal pain that lasted more than 1,5 hours. Objectively: the patient is inert, adynamic, has pale skin, cold extremities, poor volume pulse, heart rate - 120/min, AP - 70/40 mm Hg. ECG shows ST elevation in II, III, aVF leads. What condition are these changes typical for?

- A Cardiogenic shock
- B Arrhythmogenic shock
- C Perforated gastric ulcer
- D Acute pericarditis
- E Acute pancreatitis

A 42-year-old female lives in the basement, is unemployed, undernourished. She complains of having general weakness, hair loss, brittle nails for six months, likes to eat chalk. Objectively: the patient is emaciated, pale, has dry skin. Peripheral lymph nodes are not enlarged. Liver is +1,5 cm. In blood: RBCs -  $1,8 \times 10^{12}/l$ , Hb- 62 g/l, colour index - 0,78, reticulocytes - 0,5 o/oo, ESR- 18 mm/h. Leukogram exhibits no pathology. What is a provisional diagnosis?

- A Nutritional iron deficiency anaemia
- B Chronic hepatitis
- C B12-deficiency anaemia
- D Acquired haemolytic anaemia
- E Congenital haemolytic anaemia

A 20-year-old patient complains of breath shortness, continuous dull heart pain, irritability. Objectively: general condition is satisfactory, the pulse is labile, AP- 130/60 mm Hg. ECG shows repolarization disorder. The patient has been diagnosed with cardiac-type neurocirculatory dystonia. The patient should receive treatment under the following conditions:

- A Outpatient treatment
- B Inpatient treatment at the therapeutic department
- C Inpatient treatment at the cardiology department
- D Inpatient treatment at the cardiac surgery department
- E Inpatient treatment at the psychiatric department

A 45-year-old male patient complains of acute pain in his right side irradiating to the right thigh and crotch. The patient claims also to have frequent urination with urine which resembles a meat slops. The patient has no previous history of this condition. There is costovertebral angle tenderness on the right (positive Pasternatsky's symptom). What is the most likely diagnosis?

- A Urolithiasis
- B Acute appendicitis
- C Acute pyelonephritis
- D Acute cholecystitis. Renal colic
- E Acute pancreatitis

A 38-year-old male works within the range of ionizing radiation. At a routine medical examination he presents no problems. In blood: RBCs -  $4,5 \times 10^{12}/l$ , Hb- 80 g/l, WBCs -  $2,8 \times 10^9/l$ , thrombocytes -  $30 \times 10^9/l$ . Decide if this person can work with sources of ionizing radiation:

- A Working with radioactive substances and other sources of ionizing radiation is contraindicated
- B The patient is allowed to work with radioactive substances
- C The patient can only work with radioactive substances of low activity
- D The patient can be allowed to work after an extended medical examination
- E The patient is allowed to work with radioactive substances for the limited period of time

A patient who undergoes treatment at a tuberculosis clinic has complained of having progressing headache for the last 3 weeks. Neurological examination reveals rigidity of occipital muscles, no focal symptoms. What is your provisional diagnosis?

- A Tuberculous meningitis
- B Chorea minor
- C Brain tumour
- D Myelitis
- E Convexital arachnoiditis

A patient with chronic suppurative otitis has developed severe headache, vomiting, body temperature rise. The meningeal symptoms are present. There are no focal neurological symptoms. The further tactics of a doctor should be:

- A Urgent hospitalization and diagnostic lumbar puncture
- B Skull radiography
- C Regular medical check-up
- D Administration of anti-inflammatory drugs
- E Referral for a consultation with otolaryngologist

A 28-year-old male patient complains of sour regurgitation, cough and heartburn that occurs every day after having meals, when bending forward or lying down. These problems have been observed for 4 years. Objective status and laboratory values are normal. FEGDS revealed endoesophagitis. What is the leading factor in the development of this disease?

- A Failure of the lower esophageal sphincter
- B Hypersecretion of hydrochloric acid
- C Duodeno-gastric reflux
- D Hypergastrinemia
- E Helicobacter pylori infection

Routine examination of a 16-year-old boy revealed the presence of three heart sounds on auscultation. The third sound is low and occurs in early diastole, there is no additional murmur. In history: pneumonia six months ago. The patient presents no problems. Examination revealed hyposthenia, underdevelopment of muscles. Laboratory and instrumental studies revealed no peculiarities. What is the origin of the additional heart sound?

- A Physiological III sound
- B The sound of the mitral valve opening
- C Protodiastolic gallop rhythm
- D Pericardial diastolic sound
- E The sound of the tricuspid valve opening

A patient's condition is getting worse towards evening: she becomes excited, complains of "internal anxiety", "a weight on her heart", foreboding of evil - "something evil will happen to me or my family". The patient is sad, melancholic, has poor appetite and sleep disorders. Specify the kind of mental disorder:

- A Anxious depression
- B Somatized depression
- C Endogenous depression
- D Hypochondriac depression
- E Agitated depression

A 30-year-old male patient had been admitted to the TB hospital because of the following

changes detected by fluorography: an ill-defined shadow of low intensity up to 1 cm in diameter in the S1 of the right lung. CT scan showed a destruction area in the center of the shadow. Sputum analysis revealed MTB. The patient was diagnosed with focal tuberculosis. What phases of tuberculosis are the identified changes typical for?

- A Infiltration and disintegration
- B Infiltration and dissemination
- C Resorption and scarring
- D Disintegration and dissemination
- E Calcification and resorption

A 43-year-old female complains of significant weakness, sore throat, occurrence of multiple unexplained bruises on her skin. These symptoms have been present for a week, the disease is associated with quinsy which she had some time before. Objectively: body temperature - 38,9°C, respiratory rate - 24/min, Ps - 110/min, AP - 100/65 mm Hg. The patient has pale skin, petechial rash on the extremities, enlarged lymph nodes. Blood test results: Hb - 80 g/l, RBC -  $2,2 \times 10^{12}/l$ ; WBC -  $3,5 \times 10^9/l$ ; blasts - 52%; eosinophils - 2%; stab neutrophils - 3%; segmented neutrophils - 19%; lymphocytes - 13%; monocytes - 1%; platelets -  $35 \times 10^9/l$ . ESR - 47 mm/h. What test is required to specify the diagnosis?

- A Immunophenotyping
- B Protein electrophoresis
- C Lymph node biopsy
- D Determination of anti-platelet antibody titer
- E Cytogenetic study

A 47-year-old male patient complains of compressive chest pain that occurs both at rest and during light physical activity; irregular heartbeat. These problems arose 3 months ago. The patient's brother died suddenly at the age of 30. Objectively: Ps - 84/min, arrhythmic, AP - 130/80 mm Hg. ECG confirms signs of left ventricular hypertrophy, abnormal Q-waves in V4-V6 leads. EchoCG reveals that interventricular septum is 1,7 cm, left ventricular wall thickness is 1,2 cm. What is the most likely diagnosis?

- A Hypertrophic cardiomyopathy
- B Neurocirculatory asthenia
- C Exertional angina
- D Myocarditis
- E Pericarditis

A patient with unstable angina pectoris was given the following complex treatment: anticoagulants, nitrates,  $\beta$ -adrenoblockers. However on the third day of treatment the pain still remains. Which investigation should be carried out to establish diagnosis?

- A. Coronarography
- B. Stress-echocardiogram
- C. Test with dosed physical exercises
- D. Esophageal electrocardiac stimulator
- E. Myocardial scintigraphy

A 52 y.o. man has recurrent transient ischemic attacks. Auscultation of the carotid arteries detects murmur. What diagnostic method is necessary to apply first?

- A. Ultrasound dopplerography
- B. CT of the brain
- C. MRI of the brain

- D.Cerebral angiography
- E.Electroencephalography

A 67 y.o. patient complains of palpitation, dizziness, noise in ears, feeling of shortage of air. Objectively: pale, damp skin. Vesicular respiration, respiratory rate- 22 per min, pulse- 200 bpm, AP-100/70 mm Hg. On ECG: heart rate-200 bpm, ventricular complexes are widened, deformed, location of segments ST and of wave T is discordant. The wave P is not changed, superimposes QRST, natural conformity between P and QRS is not present. What kind of arrhythmia is present?

- A.Paroxysmal ventricular tachycardia
- B.Sinus tachycardia
- C.Atrialflutter
- D.Ventricular extrasystole
- E.Atrial tachycardia

A 40 y.o. patient of rheumatic heart disease complains of anorexia, weakness and loss of weight, breathless and swelling of feet. On examination: t<sub>0</sub>-39.0°C, pulse is 100/min. Auscultation: diastolic murmur in the mitral area. Petechial lesion a round clavicle; spleen was palpable, tooth extraction one month ago.

- A.Subacute bacterial endocarditis
- B.Recurrence of rheumatic fever
- C.Thrombocytopenia purpura
- D.Mitral stenosis
- E.Aortic stenosis

A 19 y.o. man was admitted to the reception department in 20 minutes after being wounded with the knife to the left chest. The patient is confused. The heart rate is 96 bpm and BP- 80/60 mm Hg. There are the dilated neck veins, sharply diminished apical beat and evident heart enlargement. What kind of penetrative chest wound complications has developed in patient?

- A.Pericardium tamponade
- B.Massive hemothorax
- C.Open pneumothorax
- D.Closed pneumothorax
- E.Valve-like pneumothorax

A 64 y.o. patient has developed of squeezing substernal pain which had appeared 2 hours ago and irradiated to the left shoulder, marked weakness. On examination: pale skin, cold sweat. Pulse- 108 bpm, AP- 70/50 mm Hg, heart sounds are dull, vesicular breathing, soft abdomen, painless, varicose vein on the left shin, ECG: sinus rhythm, heart rate is 100 bpm, ST-segment is sharply elevated in II, III and aVF leads. What is the most likely disorder?

- A.Cardiogenic shock
- B.Cardiac asthma
- C.Pulmonary artery thromboembolism
- D.Dissecting aortic aneurysm
- E.Cardiac tamponade

A 37 y.o. woman is suffering from squeezing substernal pain on physical exertion. On examination: AP- 130/80 mm Hg, heart rate=pulse rate 72 bpm, heart borders are dilated to the left side, aortic systolic murmur. ECG- signs of the left ventricle hypertrophy. What method of examination is the most informative in this case?

- A.Echocardiography



- B. Phonocardiography
- C. Coronarography
- D. Sphygmography
- E. X-ray

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

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

A female rheumatic patient experiences diastolic thoracic wall tremor (diastolic thrill), accentuated S1 at apex, there is diastolic murmur with presystolic intensification, opening snap, S2 accent at pulmonary artery. What kind of heart disorder is observed?

- A. Mitral stenosis
- B. Aortic valve insufficiency
- C. Pulmonary artery stenosis
- D. Mitral valve insufficiency
- E. Opened arterial duct

A 40 y.o. man complains of headache in occipital area. On physical examination: the skin is pale; face and hand edema, BP- 170/130 mm Hg. On EchoCG: concentric hypertrophy of the left ventricle. Ultrasound examination of the kidneys reveals thinned cortical layer. Urine analysis shows proteinuria of 3,5 g/day. What is the probable diagnosis?

- A. Essential arterial hypertension
- B. Chronic pyelonephritis
- C. Chronic glomerulonephritis
- D. Polycystic disease of the kidneys
- E. Cushing's disease

A 43 y.o. woman complains of shooting heart pain, dyspnea, irregularities in the heart activity, progressive fatigue during 3 weeks. She had acute respiratory disease a month ago. On examination: AP- 120/80 mm Hg, heart rate 98 bpm, heart borders +1,5 cm left side, sounds are muffled, soft systolic murmur at apex and Botkin's area; sporadic extrasystoles. Liver isn't palpated, there are no edema. Blood test: WBC- $6,7 \cdot 10^9$  /L, sedimentation rate- 21 mm/hour. What is the most probable diagnosis?

- A. Acute myocarditis
- B. Climacteric myocardiodystrophy
- C. Ischemic heart disease, angina pectoris
- D. Rheumatism, mitral insufficiency
- E. Hypertrophic cardiomyopathy

On the 3rd day after the acute anterior myocardial infarction a 55 y.o. patient complains of dull ache behind his breast bone, that can be reduced by bending forward, and of dyspnea. Objectively: AP- 140/180 mm Hg, heart sounds are dull. ECG results: atrial fibrillation with

frequency of ventricular contractions at the rate of 110/min, pathological Q wave and S-T segment raising in the right chest leads. The patient refused from thrombolysis. What is the most probable diagnosis?

- A. Acute pericarditis
- B. Pulmonary embolism
- C. Tietze's syndrome
- D. Dissecting aortic aneurysm
- E. Dressler's syndrome

A 40 y.o. patient with rheumatic heart disease complains of anorexia, weakness and loss of weight, breathlessness and swelling of feet. The patient had tooth extraction one month ago. On examination:  $t_0-39.0^{\circ}\text{C}$ , Ps- 100/min. Auscultation: diastolic murmur in the mitral area. Petechial lesions are round of clavicle; spleen was palpable.

- A. Subacute bacterial endocarditis
- B. Recurrence of rheumatic fever
- C. Thrombocytopenia purpura
- D. Mitral stenosis
- E. Aortic stenosis

A 58 y.o. man complained of severe inspiratory dyspnea and expectoration of frothy and bloodtinged sputum. He has been suffering from essential hypertension and ischemic heart disease. On examination: acrocyanosis, "bubbling" breathing, Ps- 30/min, BP- 230/130 mm Hg, bilateral rales. Choose medicines for treatment.

- A. Morphine, furosemide, nitroprusside sodium
- B. Theophylline, prednisolone
- C. Albuterol, atropine, papaverine
- D. Strophanthine, potassium chloride, plathyphylline
- E. Cordiamine, isoproterenol

A patient has got a sudden attack of severe substernal pain at night. On examination: confusion, pallor of the skin, acrocyanosis, cold sweat, BP- 80/50 mm Hg, Ps- 120/min, irregular and weak pulse. What condition are these symptoms typical for?

- A. Cardiogenic shock
- B. Acute left-side heart failure
- C. Acute right-side heart failure
- D. Radicular syndrome
- E. Acute vascular insufficiency

A 61 y.o. man complained of sneezing and substernal pain on exertion. In the last 2 weeks such pain appeared at rest, with increased frequency, and couldn't be suppressed by 1 tablet of nitroglycerin. What is the most likely diagnosis?

- A. Unstable angina pectoris
- B. Angina pectoris of a new onset
- C. Myocarditis
- D. Radiculitis
- E. Stable angina pectoris of the III functional class

A 60 y.o. woman has had increased BP up to 210/110 mm Hg for the last 7 years. On examination: heart apex is displaced to the left. There are signs of left ventricular hypertrophy on ECG. What is the most probable diagnosis?

- A. Essential hypertension, 2nd stage
- B. Essential hypertension, 1st stage
- C. Symptomatic hypertension
- D. Cardiomyopathy
- E. Ischemic heart disease

A 34 y.o. patient has been suffering from pulmonary tuberculosis for 7 years; he complains of muscle weakness, weight loss, diarrhea, frequent urination. Objectively: hyperpigmentation of skin, gums, internal surface of cheeks. AP- 90/58 mmHg. Blood count: RBC- $3,1 \times 10^{12}/L$ , Hb- 95 g/L, C.I.- 0,92; leukocytes - $9,4 \times 10^9/L$ , eosinophils - 7, segmentonuclear leukocytes - 45, stab neutrophils - 1, lymphocytes - 40, monocytes - 7, Na+ -115 mmol/L, + - 7,3 mmol/L. What is the preliminary diagnosis?

- A. Primary adrenocortical insufficiency
- B. Pheochromocytoma
- C. Primary hyperaldosteronism
- D. Congenital adrenocortical hyperplasia
- E. Diabetes insipidus

A 52 y.o. male patient suffers from squeezing pain attacks in substernal area which irradiates to the left hand and occurs occasionally and on physical exercises. He has had it for 1 year. On examination: heart borders are enlargement to the left side, sounds are muffled, Ps- 76 bpm, rhythmic, AP- 155/80 mm Hg, ECG: the left type, the rest signs are normal. What additional examination is necessary to confirm the diagnosis?

- A. Velocimetry
- B. Echocardiography
- C. Lipoprotein test
- D. General blood count
- E. Transaminases of blood

A 70 y.o. patient complains of weakness, dizziness, short periods of loss of consciousness, pain in the region of heart. Objectively: HR- 40/min, sounds are rhythmic, the 1st sound is dull, occasionally very intensive. AP- 180/90 mm Hg. What is the most probable reason of hemodynamic disorders?

- A. III degree atrioventricular heart block
- B. I degree atrioventricular heart block
- C. Bradysystolic form of the atrial fibrillation
- D. Sinus bradycardia
- E. Complete block of the left branch of His bundle

A 20 y.o. patient complains of amenorrhea. Objectively: hirsutism, obesity with fat tissue prevailing on the face, neck, upper part of body. On the face there are acne vulgaris, on the skin - striae cutis distense. Psychological and intellectual development is normal. Gynecological condition: external genitals are moderately hairy, acute vaginal and uterine hypoplasia. What diagnosis is the most probable?

- A. Itsenko-Cushing syndrome
- B. Turner's syndrome
- C. Stein-Levental's syndrome
- D. Shichan's syndrome
- E. Babinski-Froehlich syndrome

Adenosine triphosphate may be expected to convert which of the following arrhythmias to sinus rhythm?

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

A 52 year old patient with history of functional Class II angina complains of having intense and prolonged retrosternal pains, decreased exercise tolerance for 5 days. Angina is less responsive to nitroglycerine. What is the most probable diagnosis?

- A. IHD. Unstable angina
- B. Cardialgia due to spine problem
- C. IHD. Functional Class II angina
- D. Myocarditis
- E. Myocardial dystrophy

A 52 year old patient has hypervolaemic type of essential hypertension. Which of the following medications is to be prescribed either as monotherapy or in complex with other antihypertensive drugs?

- A. Hypothiazid
- B. Dibazol
- C. Clonidine
- D. Kapoten
- E. Nifedipin

A patient, aged 49, complains of fever of 37,5°C, heart pain, dyspnea. S1 is clapping; S2 is accentuated in the aortic area; opening snap, presystolic murmur can be auscultated. What is the most efficient examination for valvular disorder assessment?

- A. Echocardiography+Doppler-Echocardiography
- B. Phonocardiography
- C. Ballistocardiogram
- D. Chest X-ray
- E. ECG

A 42 year old woman complains of dyspnea, edema of the legs and tachycardia during minor physical exertion. Heart borders are displaced to the left and S1 is accentuated, there is diastolic murmur on apex. The liver is enlarged by 5 cm. What is the cause of heart failure?

- A. Mitral stenosis
- B. Mitral regurgitation
- C. Tricuspid stenosis
- D. Tricuspid regurgitation
- E. Aortic stenosis

A 30 year old woman ill with influenza felt palpitation and dull cardiac pain during moderate physical exercise. Objectively: Ps - 96 bpm, AP - 100/60 mm Hg. The first sound is quiet above the apex, soft systolic murmur is present. What complication is indicated by these clinical presentations?

- A. Acute viral myocarditis
- B. Acute allergic infectious myocarditis

- C. Idiopathic myocarditis
- D. Myocardiopathy
- E. Neurocirculatory dystonia

A 46 year old woman who has been suffering from hypertension for 5 years was diagnosed with hypertensive crisis. She complains about palpitation, sense of head pulsation; heart rate is 100/min, AP is 190/100 mm Hg (haemodynamics is of hyperkinetic type). What medication should be the medication of choice?

- A.  $\beta$ -adrenoceptor blocker
- B. Adenosine pyrophosphate inhibitor
- C. Diuretic
- D.  $\alpha$ -adrenoceptor blocker
- E. Dihydropyridine calcium antagonist

A 58 y.o. patient developed acute myocardium infarction 4 hours ago, now he is in the acute care department. ECG registers short paroxysms of ventricular tachycardia. The most appropriate measure will be to introduce:

- A. Lidocain
- B. Flecainid
- C. Amyodaron
- D. Propafenone
- E. Veropamil

After a long periode of subfebrility a patient registered increase of dyspnea, pain in the right hypochondrium, leg edemata. Objectively: neck veins are edematic. Ps is 120 bpm, sometimes it di-sappears during inspiration. Heart sounds are very weakened. ECG showed low-voltage waves of ventricular complex. A month ago there was raise of STV1–V4 segment. Cardiac silhouette is enlarged, roundish. What is the most probable diagnosis?

- A. Exudative pericarditis
- B. Small-focal myocardial infarction
- C. Postinfarction cardiosclerosis
- D. Metabolic postinfection myocardiopathy
- E. Primary rheumatic carditis

A 74 y.o. patient has been suffering from hypertension for 20 years. He complains of frequent headache, dizziness, he takes enalapril. Objectively: accent of the SII above aorta, Ps- 84 bpm, rhythmic, AP- 180/120 mm Hg. What group of hypotensive medications could be additionally prescribed under consideration of the patient's age?

- A. Thiazide diuretics
- B. Loop diuretics
- C.  $\beta$ -adrenoceptor blockers
- D.  $\alpha$ -adrenoceptor blockers
- E. Central sympatholytics

A 70 y.o. patient complains of weakness, dizziness, short periods of unconsciousness, pain in the cardiac area. Objectively: HR- 40 bpm, heart sounds are rhythmic, the S1 is dull, periodically amplified. AP is 180/90 mm Hg. What is the most probable cause of hemodynamic disturbances?

- A. Atrioventricular block type III
- B. Atrioventricular block type I

- C. Bradysystolic form of ciliary arrhythmia
- D. Sinus bradycardia
- E. Complete left bundle-branch block

A 39 y.o. patient complains of having dyspnea during physical activity, crura edemata, palpitation, heart intermissions. Objectively: HR is 150 bpm, atrial fibrillation. Heart is both ways enlarged. Heart sounds are muted. Liver is 6 cm below the costal margin. Echocardiogram reveals dilatation of heart chambers (end diastolic volume of left ventricle is 6,8 cm) is 29% EF, valve apparatus is unchanged. What is the most probable diagnosis?

- A. Dilated cardiomyopathy
- B. Exudative pericarditis
- C. Restrictive cardiomyopathy
- D. Hypertrophic cardiomyopathy
- E. Thyrotoxic cardiomyopathy

A patient who takes diuretics has developed arrhythmia as a result of cardiac glycoside overdose. What is the treatment tactics in this case?

- A. Increased potassium concentration in blood
- B. Increased sodium concentration in blood
- C. Reduced magnesium concentration in blood
- D. Increased calcium concentration in blood

Five days after a total hip joint replacement a 72 year old woman becomes acutely short of breath, diaphoretic and hypotensive. Both lung fields are clear to auscultation and percussion, but examination of the neck reveals mild jugular venous distension with prominent A waves. Heart sounds are normal. ECG shows sinus tachycardia with a new right bundle branch block and minor nonspecific ST – T wave changes. The most likely diagnosis is:

- A. Pulmonary thromboembolism
- B. Acute myocardial infarction
- C. Aortic dissection
- D. Pericarditis
- E. Aspiration

A 52 year old patient with history of functional Class II angina complains of having intense and prolonged retrosternal pains, decreased exercise tolerance for 5 days. Angina is less responsive to nitroglycerine. What is the most probable diagnosis?

- A. IHD. Unstable angina
- B. Cardialgia due to spine problem
- C. IHD. Functional Class II angina
- D. Myocarditis
- E. Myocardial dystrophy

A 52 year old patient has hypervolaemic type of essential hypertension. Which of the following medications is to be prescribed either as monotherapy or in complex with other antihypertensive drugs?

- A. Hypothiazid
- B. Dibazol
- C. Clonidine
- D. Kapoten
- E. Nifedipin

A 62 year old patient complains of rest dyspnea, heart pains. 3 years ago he had myocardial infarction. Physical examination: orthopnea, acrocyanosis, swollen cervical veins. Ps - 92, total heart enlargement, the liver is enlarged by 7 cm, shin edema. What is the stage of chronic heart failure (CHF)?

- A. CHF- 2 B
- B. CHF- 1
- C. CHF- 2 A
- D. CHF- 0
- E. CHF- 3

A 60 year old man with unstable angina pectoris fails to respond to heparin, nitroglycerin, beta adrenergic blockers and calcium channel antagonist. The best management includes:

- A. Coronary artery bypass grafting
- B. Intravenous streptokinase
- C. Exercise testing
- D. Oral aspirin
- E. Antihypertensive therapy

A 42 year old woman complains of dyspnea, edema of the legs and tachycardia during minor physical exertion. Heart borders are displaced to the left and S1 is accentuated, there is diastolic murmur on apex. The liver is enlarged by 5 cm. What is the cause of heart failure?

- A. Mitral stenosis
- B. Mitral regurgitation
- C. Tricuspid stenosis
- D. Tricuspid regurgitation
- E. Aortic stenosis

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

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

A 32 year old patient complains about cardiac irregularities, dizziness, dyspnea at physical stress. He has never suffered from this before. Objectively: Ps- 74 bpm, rhythmic. AP- 130/80 mm Hg. Auscultation revealed systolic murmur above aorta, the first heart sound was normal. ECG showed hypertrophy of the left ventricle, signs of repolarization disturbance in the I, V5 and V6 leads. Echocardiogram revealed that interventricular septum was 2 cm. What is the most probable diagnosis?

- A. Hypertrophic cardiomyopathy
- B. Aortic stenosis
- C. Essential hypertension
- D. Myocardium infarction
- E. Coarctation of aorta

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

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

A healthy 75 year old woman who leads a moderately active way of life went through a preventive examination that revealed serum concentration of common cholesterol at the rate of 5,1 millimole/l and HDL (high-density lipoproteins) cholesterol at the rate of 70 mg/dl. ECG reveals no pathology. What dietary recommendation is the most adequate?

- A. Any dietary changes are necessary
- B. Decrease of cholesterol consumption
- C. Decrease of saturated fats consumption
- D. Decrease of carbohydrates consumption
- E. Increase of cellulose consumption

A 14 year old child suffers from vegetovascular dystonia of pubertal period. He has got sympathoadrenal attack. What medicine should be used for attack reduction?

- A. Obsidan
- B. No-shpa
- C. Amysyl
- D. Aminophylline
- E. Corglicone

A 52 year old male patient complains about attacks of asphyxia, pain in his left side during respiration. These manifestations turned up all of a sudden. It is known from his anamnesis that he had been treated for thrombophlebitis of the right leg for the last month. In the admission ward the patient suddenly lost consciousness, there was a sudden attack of asphyxia and pain in his left side. Objectively: heart rate - 102/min, respiratory rate - 28/min, AP- 90/70 mm Hg. Auscultation revealed diastolic shock above the pulmonary artery, gallop rhythm, small bubbling rales above the lungs under the scapula on the right, pleural friction rub. What examination method will be the most informative for a diagnosis?

- A. Angiography of pulmonary vessels
- B. Echocardiography
- C. Study of external respiration function
- D. ECG
- E. Coagulogram

A patient has got acute macrofocal myocardial infarction complicated by cardiogenic shock. The latter is progressing under conditions of weak general peripheral resistance and lowered cardiac output. What antihypertensive drug should be injected to the patient in the first place?

- A. Dopamine
- B. Noradrenaline
- C. Adrenaline
- D. Mesatonum
- E. Prednisolone



A 54 year old female patient was admitted to the hospital with evident acrocyanosis, swollen cervical veins, enlarged liver, ascites. Cardiac borders are dilated. Heart sounds cannot be auscultated, apical beat is undetectable. AP is 100/50 mm Hg. X-ray picture of chest shows enlarged heart shadow in form of a trapezium. What pathology might have caused these symptoms?

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

The patient with acquired heart failure has diastolic pressure of 0 mm Hg. What heart failure does the child have?

- A. Aortic insufficiency
- B. Mitral stenosis
- C. Aortic stenosis
- D. Mitral insufficiency
- E. Rheumatism

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

- A. Twice a year
- B. Once a year
- C. 3 times a year
- D. 4 times a year
- E. 5 times a year

A 45-year-old male patient was admitted to the intensive care unit because of myocardial infarction. An hour later the ventricular facilitation occurred. Which of the following should be administered?

- A. Defibrillation
- B. External chest compression
- C. Lidocaine injection
- D. Adrenalin injection
- E. Cardiac pacing

A 40-year-old woman who has worked in weaving branch for 10 years complains of frequent headache, sleeplessness, irritability, fatigue, tiredness. Physical examination revealed instability of blood pressure, internal organs are without changes. What is the most likely diagnosis?

- A. Noise-induced disease
- B. Hypertension
- C. Atopic bronchial asthma
- D. Asthenovegetative syndrome
- E. Encephalopathy

A 45-year-old driver was admitted to the hospital with 5 hour substernal pain. Nitroglycerin is not effective. He is pale, heart sounds are regular but weak. HR - 96 per minute, BP of 100/60mm Hg. What is the most likely diagnosis?

- A. Acute myocardial infarction

- B. Stable angina
- C. Pulmonary embolism
- D. Acute myocarditis
- E. Acute left ventricular failure

A 33-year-old man with a history of rheumatic fever complains of fever up to 38 – 39°C, abdominal pain, dyspnea, tachycardia. Heart borders are displaced to the left by 2 cm, systolic and diastolic murmurs above aorta, BP of 160/30 mm Hg. Petechial rash occurs after measurement of blood pressure. Liver is enlarged by 3 cm, spleen is palpable. Urine is brown-yellow. What is the most likely diagnosis?

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

A 30-year-old patient complains of breathlessness, pain in the right rib arc region, dry cough and the edema of legs. He is ill for 2 months. He had been treated for rheumatic fever without any effect. On exam: cyanosis, edema of legs, BT of 36, 6°C, RR of 28/min, HR of 90/min, BP of 110/80mmHg, crackles above low parts of both lungs, heart borders are displaced to the left and to the right, weak sounds, systolic murmur above the apex. What is the preliminary diagnosis?

- A. Dilated cardiomyopathy
- B. Infectious endocarditis
- C. Acute myocarditis
- D. Rheumatic fever, mitral stenosis
- E. Acute pericarditis

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

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

Which of the following best summarizes indications for operation on an abdominal aortic aneurysm?

- A. Any aneurysm greater than 5 cm in diameter
- B. Any abdominal aortic aneurysm
- C. Only symptomatic aneurysm
- D. Only symptomatic aneurysm greater than 5 cm in diameter
- E. Only ruptured aneurysm

A 32-year-old patient complains of cardiac irregularities, dizziness, dyspnea at physical stress. He has never suffered from this before. Objectively: Ps- 74 bpm, rhythmic. AP- 130/80 mm Hg. Auscultation revealed systolic murmur above aorta, the first heart sound was normal. ECG showed hypertrophy of the left ventricle, signs of repolarization disturbance in the I, V5 and V6 leads. Echocardiogram revealed that interventricular septum was 2 cm. What is the most likely diagnosis?

- A. Hypertrophic cardiomyopathy
- B. Aortic stenosis
- C. Essential hypertension
- D. Myocardium infarction
- E. Coarctation of aorta

A 58-year-old female patient complains about periodical headache, dizziness and ear noise. She has been suffering from diabetes mellitus for 15 years. Objectively: heart sounds are rhythmic, heart rate is 76/min, there is diastolic shock above aorta, AP is 180/110 mm Hg. In urine: OD- 1,014. Daily loss of protein with urine is 1,5 g. What drug should be chosen for treatment of arterial hypertension?

- A. Inhibitor of angiotensin converting enzyme
- B.  $\beta$ -blocker
- C. Calcium channel antagonist
- D. Thiazide diuretic
- E.  $\alpha$ -blocker

A 60-year-old female patient was admitted to a hospital for acute transmural infarction. An hour ago the patient's condition got worse. She developed progressing dyspnea, dry cough. Respiratory rate - 30/min, heart rate - 130/min, AP- 90/60 mm Hg. Heart sounds are muffled, diastolic shock on the pulmonary artery. There are medium moist rales in the lower parts of lungs on the right and on the left. Body temperature - 36, 4°C. What drug should be given in the first place?

- A. Promedol
- B. Aminophylline
- C. Dopamine
- D. Heparin
- E. Digoxin

A 52-year-old male patient complains about attacks of asphyxia, pain in his right side during respiration. These manifestations turned up all of a sudden. It is known from his anamnesis that he had been treated for thrombophlebitis of the right leg for the last month. In the admission ward the patient suddenly lost consciousness, there was a sudden attack of asphyxia and pain in his side. Objectively: heart rate - 102/min, respiratory rate - 28/min, AP- 90/70 mm Hg. Auscultation revealed diastolic shock above the pulmonary artery, gallop rhythm, small bubbling rales above the lungs under the scapula on the right, pleural friction rub. What examination method will be the most informative for a diagnosis?

- A. Angiography of pulmonary vessels
- B. Echocardiography
- C. Study of external respiration function
- D. ECG
- E. Coagulogram

A 56-year-old patient with diffuse toxic goiter has ciliary arrhythmia with pulse rate 110 bpm, arterial hypertension, AP- 165/90 mm Hg. What preparation should be administered along with mercazolil?

- A. Propranolol
- B. Radioactive iodine
- C. Procaine hydrochloride
- D. Verapamil

E. Corinfar

A patient has got acute macrofocal myocardial infarction complicated by cardiogenic shock. The latter is progressing under conditions of weak general peripheral resistance and decreased cardiac output. What antihypertensive drug should be injected to the patient in the first place?

- A. Dopamine
- B. Noradrenaline
- C. Adrenaline
- D. Mesatonum
- E. Prednisolone

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

- A. Atrioseptal defect
- B. Pulmonary artery stenosis
- C. Aorta coarctation
- D. Fallot's tetrad
- E. Patent ductus arteriosus

A 60-year-old patient complains about asphyxia, palpitation, rapid fatigability. He has 8 year history of essential hypertension. Objectively: the left cardiac border is 2 cm deviated to the left from the medioclavicular line, heart sounds are rhythmic and weak; there is diastolic shock above aorta. AP- 170/100 mm Hg. Liver - +2 cm; shin pastosity is present. ECG shows deviation of cardiac axis to the left, left ventricle hypertrophy. Ejection fraction - 63%. What type of cardiac insufficiency is observed?

- A. Diastolic
- B. Systolic
- C. Combined
- D. It's a norm
- E. Unspecified

During examination at a military commissariat a 15-year-old teenager was found to have interval systolic murmur on the cardiac apex, diastolic shock above the pulmonary artery, tachycardia. Which of the supplemental examination methods will be the most informative for the diagnosis specification?

- A. Echocardiography
- B. Electrocardigraphy
- C. Roengenography
- D. Phonocardiography
- E. Rheography

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

- A. Defect of interventricular septum

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

A 28-year-old patient complains of periodic compressing heart pain. His brother died at the age of 34 from a cardiac disease with similar symptoms. Objectively: the patient's skin is pale. Heart borders display no significant deviations. Heart sounds are loud, there is a systolic murmur above all the points with a peak above the aorta. Echocardiography reveals thickening of the interventricular septum in the basal parts, reduction of left ventricular cavity. What drug should be administered in order to prevent the disease progression?

- A. Metoprolol
- B. Digoxin
- C. Nitroglycerin
- D. Captopril
- E. Furosemide

A 56-year-old scientist experiences constricting retrosternal pain several times a day while walking for 100-150 m. The pain lasts for up to 10 minutes and can be relieved by nitroglycerine. Objectively: the patient is overweight, heart borders exhibit no abnormalities, heart sounds are rhythmic, Ps- 78 bpm, AP- 130/80 mm Hg. ECG contains low amplitude of T wave in V4-5. What disease might be suspected?

- A. Stable FC III stenocardia
- B. Instable stenocardia
- C. Stable FC I stenocardia
- D. Stable FC II stenocardia
- E. Stable FC IV stenocardia

A 58-year-old female patient complains about periodical headache, dizziness and ear noise. She has been suffering from diabetes mellitus for 15 years. Objectively: heart sounds are rhythmic, heart rate is 76/min, there is diastolic shock above aorta, AP is 180/110 mm Hg. In urine: OD- 1,014. Daily loss of protein with urine is 1,5 g. What drug should be chosen for treatment of arterial hypertension?

- A. Inhibitor of angiotensin converting enzyme
- B.  $\beta$ -blocker
- C. Calcium channel antagonist
- D. Thiazide diuretic
- E.  $\alpha$ -blocker

A 60-year-old female patient was admitted to a hospital for acute transmural infarction. An hour later the patient's condition got worse. She developed progressing dyspnea, dry cough. Respiratory rate - 30/min, heart rate - 130/min, AP- 90/60 mm Hg. Heart sounds were muffled, there was also diastolic shock on the pulmonary artery. The patient presented with medium moist rales in the lower parts of lungs on the right and on the left. Body temperature - 36,4°C. What drug should be given in the first place?

- A. Promedol
- B. Aminophylline
- C. Dopamine
- D. Heparin
- E. Digoxin

A 62-year-old male has been hospitalized in the intensive care unit with a continuous attack of retrosternal pain that cannot be relieved by nitroglycerin. Objectively: AP- 80/60 mm Hg, heart rate - 106/min, breathing rate - 22/min. Heart sounds are muffled, a gallop rhythm is present.

How would you explain the AP drop?

- A. Reduction in cardiac output
- B. Reduction in peripheral resistance
- C. Blood depositing in the abdominal cavity
- D. Adrenergic receptor block
- E. Internal haemorrhage

A 56-year-old patient with diffuse toxic goiter has ciliary arrhythmia with pulse rate of 110 bpm, arterial hypertension, AP- 165/90 mm Hg. What preparation should be administered along with mercazolil?

- A. Propranolol
- B. Radioactive iodine
- C. Procaine hydrochloride
- D. Verapamil
- E. Corinfar

A 46-year-old patient complains of sudden palpitation, which is accompanied by pulsation in the neck and head, fear, nausea. The palpitation lasts for 15-20 minutes and is over after straining when holding her breath. What kind of cardiac disorder may be suspected?

- A. An attack of supraventricular paroxysmal tachycardia
- B. An attack of ventricular paroxysmal tachycardia
- C. An attack of atrial flutter
- D. An attack of ciliary arrhythmia
- E. An attack of extrasystolic arrhythmia

A 40-year-old female patient complain of headache, dizziness, muscle weakness, sometimes - cramps in the extremities. She has been taking antihypertensive medications for 10 years. AP- 180/100 mm Hg. Blood potassium - 1,8 millimole/l, sodium - 4,8 millimole/l. In urine: alkaline reaction, the relative density - 1012, protein and sugar are not found, WBCs - 3-4 in the field of vision, RBCs - 1- 2 in the field of vision. Conn's syndrome is suspected. Which drug should be chosen for the treatment of arterial hypertension?

- A. Spironolactone
- B. Propanolol
- C. Enalapril
- D. Hydrochlorothiazide
- E. Clonidine

A 20 year-old patient complains of nosebleeds, numbness of the lower extremities. Objectively: hyperaemia of face, on the upper extremities AP is 160/90 mm Hg, and 80/50 mm Hg on the lower ones. Pulse on the popliteal and pedal arteries is of poor volume, there is systolic murmur over the carotid arteries. What is the most likely diagnosis?

- A. Aorta coarctation
- B. Dissecting aortic aneurysm
- C. Aortopulmonary window
- D. Ventricular septal defect
- E. Atrial septal defect

Examination of a 35-year-old patient with rheumatism revealed that the right heart border was 1 cm displaced outwards from the right parasternal line, the upper border was on the level with inferior margin of the 1st rib, the left border was 1 cm in from the left midclavicular line. Auscultation revealed atrial fibrillation, loud apical first sound, diastolic shock above the pulmonary artery. Echocardiography revealed abnormal pattern of the mitral valvemotion. What heart disease is characterized by these symptoms?

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

A 13-year-old boy with hypertrophic cardiomyopathy complains of dyspnea on minimal exertion. EchoCG reveals asymmetric left ventricular hypertrophy, signs of pulmonary hypertension, dilatation of the left atrium. EF is 64%. The revealed alterations are indicative of:

- A. Diastolic heart failure
- B. Systolic heart failure
- C. Primary pulmonary hypertension
- D. Primary arterial hypertension
- E. Symptomatic arterial hypertension

A 76-year-old male consulted a therapist about slow discharge of urine with a small jet. The patient reported no cardiac problems. Examination revealed atrial fibrillation with a heart rate of 72/min and without pulse deficit. There are no signs of heart failure. ECG confirms the presence of atrial fibrillation. From history we know that the arrhythmia was detected three years ago. What tactics for the treatment of atrial fibrillation in the patient should be chosen?

- A. Does not require treatment
- B. Digoxin
- C. Verapamil
- D. Obzidan
- E. Ajmaline

3 hours before, a 68-year-old male patient got a searing chest pain radiating to the neck and left forearm, escalating dyspnea. Nitroglycerin failed to relieve pain but somewhat reduced dyspnea. Objectively: there is crimson cyanosis of face. Respiratory rate is 28/min. The patient has vesicular breathing with isolated sibilant rales. Heart sounds are muffled, with a gallop rhythm. Ps- 100/min, AP- 100/65 mm Hg. ECG shows negative T-wave in V2–V6 leads. What drug can reduce the heart's need for oxygen without aggravating the disease?

- A. Isosorbide dinitrate
- B. Corinfar
- C. Atenolol
- D. Streptokinase
- E. Aminophylline

A 30-year-old female patient has been delivered to a hospital for sudden dyspnea progressing to asthma, sensation of having a "lump in the throat", hand tremor, fear of death. The attack has developed for the first time and is associated with a strong emotion. There is no previous history. Objectively: respiratory rate - 28/min, Ps- 104/min, rhythmic, AP- 150/85 mm Hg. The patient has rapid superficial vesicular breathing with extended expiration. Percussion findings: heart

borders are not changed. Cardiac sounds are loud, rhythmic. What is the most likely diagnosis?

- A. Neurocirculatory asthenia
- B. Bronchial asthma
- C. Hypertensive crisis
- D. Cardiac asthma
- E. Thyrotoxic crisis

A 42-year-old male patient with essential hypertension presents with headache, palpitations, unexplained fear. Objectively: Ps-100/min, AP- 200/100 mm Hg, the left border of cardiac dullness is displaced by 1,5 cm to the left, vesicular breathing is present. ECG shows sinus tachycardia, signs of left ventricular hypertrophy. What drug should be administered as an emergency?

- A. Obzidan
- B. Dibazol
- C. Reserpine
- D. Magnesium sulfate
- E. Furosemide

A 43-year-old female patient complains of dyspnea, swelling of legs, abdomen enlargement, pricking heart pain. She has a history of tuberculous bronchadenitis, quinsies. The patient's condition deteriorated 6 months ago. Objectively: cyanosis, bulging neck veins, vesicular breathing. Heart borders are not displaced. Heart sounds are muffled, Ps- 106/min, liver is +4 cm, ascites is present. Low voltage on the ECG has been revealed. Radiograph shows a thin layer of calcium deposits along the left contour of heart. What treatment should be recommended to the patient?

- A. Treatment by a cardiac surgeon
- B. Digitalis preparations
- C. Anti-TB drugs
- D. Diuretics
- E. Vasodilators, nitrates

A 26-year-old female patient has an 11-year history of rheumatism. Four years ago she suffered 2 rheumatic attacks. Over the last 6 months there have been paroxysms of atrial fibrillation every 2-3 months. What option of antiarrhythmic therapy or tactics should be proposed?

- A. Prophylactic administration of cordarone
- B. Immediate hospitalization
- C. Defibrillation
- D. Lidocaine administration
- E. Heparin administration

A 10-year-old child with a history of nonrheumatic carditis has periodic attacks manifested by heart pain, dyspnea, pallor, high blood pressure, a dramatic increase in heart rate up to 180/min. What drug would be most effective to treat this patient?

- A. Obsidan
- B. Procainamide
- C. Lidocaine
- D. Verapamil
- E. Ajmaline

A 47-year-old male patient has been lately complaining of compressing chest pain that occurs



when he walks a distance of 700-800 m. Once a week, he drinks 2 liters of beer. Rise in arterial pressure has been observed for the last 7 years. Objectively: Ps- 74/min, AP- 120/80 mm Hg. The bicycle ergometry performed at workload of 75 watts shows 2mmST-segment depression in V4–V6 leads. What is the most likely diagnosis?

- A. Exertional stenocardia, II functional class
- B. Exertional stenocardia, III functional class
- C. Exertional stenocardia, IV functional class
- D. Vegetative-vascular dystonia of hypertensive type
- E. Alcoholic cardiomyopathy

Examination of an 11-year-old boy revealed frequent nosebleeds, fatigue when walking, underdevelopment of the lower half of the body, increased blood pressure in the upper extremities and decreased pressure in the lower ones, extension of the left heart border, blowing systolic murmur in the interscapular region. ECG shows the horizontal axis of heart. Radiography reveals left cardiomegaly, costal usuration. What is the most likely diagnosis?

- A. Aortarctia
- B. Aortic stenosis
- C. Patent ductus arteriosus
- D. Ventricular septal defect
- E. Atrial septal defect

During the preventive examination a 17-year-old young man reports no health problems. Objectively: the patient is undernourished, asthenic; blood pressure is 110/70 mm Hg, Ps- 80/min. Heart borders are within normal range. Auscultation reveals three apical heart sounds, murmurs are absent. ECG shows no pathological changes, PCG registers the S3 occurring 0,15 seconds after the S2. How can you interpret these changes?

- A. Physiologic S3
- B. Fout-ta-ta-rou (three-component rhythm)
- C. Protodiastolic gallop rhythm
- D. Presystolic gallop rhythm
- E. Physiologic S4

A week before, a 65-year-old male patient suffered an acute myocardial infarction. His general condition has deteriorated: he complains of dyspnea at rest, pronounced weakness. Objectively: edema of the lower extremities, ascites is present. Heart borders are extended, paradoxical pulse is 2 cm displaced from the apex beat to the left. What is the most likely diagnosis?

- A. Acute cardiac aneurysm
- B. Recurrent myocardial infarction
- C. Acute pericarditis
- D. Cardiosclerotic aneurysm
- E. Pulmonary embolism

A 29-year-old female patient complains of dyspnea and palpitations on exertion. According to her mother, as a child she had heart murmur, did not undergo any examinations. Objectively: the patient has pale skin, Ps- 94/min, rhythmic. AP- 120/60 mm Hg. In the II intercostal space on the left auscultation reveals a continuous rasping systolodiastolic murmur, diastolic shock above the pulmonary artery. Blood and urine are unremarkable. What is the most likely diagnosis?

- A. Patent ductus arteriosus
- B. Atrial septal defect

- C. Ventricular septal defect
- D. Aortic stenosis
- E. Tetralogy of Fallot

A 67-year-old female patient with hypertensive crisis has asthma, cough with expectoration of frothy pink sputum, moist rales in the lungs. The patient stays in sitting position, respiratory rate is 40/min, AP-214/136 mm Hg, heart rate - 102/min. What is the most rational tactics of this patient management?

- A. Intravenous administration of furosemide
- B. Urgent pneumography
- C. Bed rest, lying position
- D. Intravenous administration of  $\alpha\beta$ -blocker
- E. Tactics can be determined after ECG and chest radiography

A 63-year-old male patient with persistent atrial fibrillation complains of moderate dyspnea. Objectively: peripheral edema are absent, vesicular breathing is present, heart rate - 72/min, AP- 140/90 mmHg. What combination of drugs will be most effective for the secondary prevention of heart failure?

- A. Beta-blockers, ACE inhibitors
- B. Beta-blockers, cardiac glycosides
- C. Cardiac glycosides, diuretics
- D. Cardiac glycosides, ACE inhibitors
- E. Diuretics, beta-blockers

A 57-year-old male patient had an attack of retrosternal pain that lasted more than 1,5 hours. Objectively: the patient is inert, adynamic, has pale skin, cold extremities, poor volume pulse, heart rate - 120/min, AP- 70/40 mm Hg. ECG shows ST elevation in II, III, aVF leads. What condition are these changes typical for?

- A. Cardiogenic shock
- B. Arrhythmogenic shock
- C. Perforated gastric ulcer
- D. Acute pericarditis
- E. Acute pancreatitis

During the ultrasound study of carotid and vertebral arteries a 74-year-old patient developed a condition manifested by dizziness, weakness, nausea, transient loss of consciousness.

Objectively: pale skin, AP-80/60 mm Hg, Ps- 96/min of poor volume. ECG shows sinus tachycardia, left ventricular hypertrophy. Focal neurological symptoms were not found. What is the provisional diagnosis?

- A. Carotid sinus syncope
- B. Orthostatic syncope
- C. Morgagni-Adams-Stokes attack
- D. Complete atrioventricular block
- E. Acute cerebrovascular accident

A 47-year-old male patient complains of compressive chest pain that occurs both at rest and during light physical activity; irregular heartbeat. These problems arose 3 months ago. The patient's brother died suddenly at the age of 30. Objectively: Ps- 84/min, arrhythmic, AP- 130/80 mm Hg. ECG confirms signs of left ventricular hypertrophy, abnormal Q-waves in V4–V6 leads. EchoCG reveals that interventricular septum is 1,7 cm, left ventricular wall thickness is 1,2 cm.

What is the most likely diagnosis?

- A. Hypertrophic cardiomyopathy
- B. Neurocirculatory asthenia
- C. Exertional angina
- D. Myocarditis
- E. Pericarditis

A 13-year-old girl complains of periodic prickly pain in the heart region. Percussion revealed no changes of cardiac borders. Auscultation revealed arrhythmic enhanced heart sounds, extrasystole at the 20-25 cardiac impulse. ECG showed the sinus rhythm, impaired repolarization, single upraventricular extrasystoles at rest. What is the most likely diagnosis?

- A. Vegetative-vascular dysfunction
- B. Rheumatism
- C. Nonrheumatic carditis
- D. Myocardial degeneration
- E. Intoxication syndrome

A 57-year-old male patient complains of dyspnea on exertion, heaviness in the right hypochondrium and shin edemata towards evening. Objectively: temperature - 38,1°C, HR-20/min, HR=Ps=92/min, AP- 140/90 mm Hg. There is apparent kyphoscoliosis. In the lungs single dry rales can be auscultated. Heart sounds are muffled, rhythmic. ECG: Rv1+Sv5=15 mm. X-ray picture shows the bulging of pulmonary artery cone, right ventricle enlargement. What is the most likely cause of this condition?

- A. Pulmonary heart
- B. Atherosclerotic cardiosclerosis
- C. Dilatation cardiomyopathy
- D. Mitral stenosis
- E. Primary pulmonary hypertension

A 40-year-old woman with a history of combined mitral valve disease with predominant stenosis complains of dyspnea, asthma attacks at night, heart problems. At present, she is unable to do easy housework. What is the optimal tactics of the patient treatment?

- A. Mitral commissurotomy
- B. Implantation of an artificial valve
- C. Antiarrhythmia therapy
- D. Treatment of heart failure
- E. Antirheumatic therapy

A 25-year-old patient complains of having dull heart pain for the last 10 days, dyspnea on mild exertion, palpitations. The disease developed 2 weeks ago after a respiratory infection. Objectively: acrocyanosis, AP- 90/75 mm Hg, Ps-96/min. Cardiac borders appear to be shifted to the left and right. Heart sounds are weak and have triple rhythm, there is systolic murmur at the apex. ECG showed sinus rhythm, complete left bundle branch block. What is the most likely diagnosis?

- A. Infectious-allergic myocarditis
- B. Exudative pericarditis
- C. Infective endocarditis
- D. Myocarditic cardiosclerosis
- E. Vegetative-vascular dystonia

A 59-year-old male complains of heart pain, cough, fever up to 38°C. Three weeks ago he suffered a heart attack. Objectively: Ps- 86/min, rhythmic, blood pressure - 110/70 mm Hg. Auscultation reveals pericardial rub, rales beneath the shoulder blade. Radiography reveals no pathology. Blood count: WBCs - 10·10<sup>9</sup>/l, ESR - 35 mm/h. ECG shows no dynamics. It would be most reasonable to administer the drugs of the following pharmaceutical group:

- A. Glucocorticoids
- B. Antibiotics
- C. Direct anticoagulants
- D. Nitrates and nitrites
- E. Fibrinolytics

A 53-year-old female patient complains of cardiac pain and rhythm intermissions. She has experienced these presentations since childhood. The patient's father had a history of cardiac arrhythmias. Objectively: the patient is in grave condition, Ps- 220 bpm, AP- 80/60 mm Hg. ECG results: heart rate - 215/min, extension and deformation of QRS complex accompanied by atrioventricular dissociation; positive P wave. Some time later heart rate reduced down to 45/min, there was a complete dissociation of P wave and QRST complex. Which of the following will be the most effective treatment?

- A. Implantation of the artificial pacemaker
- B.  $\beta$ -adrenoreceptor blocking agents
- C. Cholinolytics
- D. Calcium antagonists
- E. Cardiac glycosides

A 14-year-old boy with a history of chronic tonsillitis and sinusitis has developed a feeling of heart irregularities and additional pulse. HR- 83/min. ECG results: regular impulses with no visible P wave that occur every two sinus contractions, QRS complex is dramatically deformed and prolonged to over 0,11 s, T wave is discordant followed by a complete compensatory pause.

Specify the arrhythmia type:

- A. Trigeminal extrasystole
- B. Bigeminal extrasystole
- C. Partial AV-blockade
- D. Complete AV-block
- E. Left bundle branch block

An 8-year-old girl periodically has sudden short-term heart pain, sensation of chest compression, epigastric pain, dizziness, vomiting. Objectively: the patient is pale, respiratory rate - 40/min, jugular pulse is present. Ps- 185 bpm, of poor volume. AP- 75/40 mm Hg. ECG taken during an attack shows ectopic P waves, QRS wave is not deformed. At the end of an attack a compensatory pause is observed. The most likely cause of the attack is:

- A. Paroxysmal atrial tachycardia
- B. Sinus tachycardia
- C. Paroxysmal ventricular tachycardia
- D. Complete AV-block
- E. Atrial fibrillation

After myocardial infarction, a 50-year-old patient had an attack of asthma. Objectively: bubbling breathing with frequency of 32/min, cough with a lot of pink frothy sputum, acrocyanosis, swelling of the neck veins. Ps- 108/min, AP- 150/100 mm Hg. Heart sounds are muffled. Mixed moist rales can be auscultated above the entire lung surface. What drug would be most effective

in this situation?

- A. Nitroglycerin intravenously
- B. Pentamin intravenously
- C. Strophanthin intravenously
- D. Dopamine intravenously
- E. Aminophylline intravenously

4 weeks after myocardial infarction a 56-year-old patient developed acute heart pain, pronounced dyspnea. Objectively: the patient's condition is extremely grave, there is marked cyanosis of face, swelling and throbbing of neck veins, peripheral pulse is absent, the carotid artery pulse is rhythmic, 130 bpm, AP is 60/20 mm Hg. Auscultation of heart reveals extremely muffled sounds, percussion reveals heart border extension in both directions. What is the optimal treatment tactic for this patient?

- A. Pericardiocentesis and immediate thoracotomy
- B. Oxygen inhalation
- C. Puncture of the pleural cavity on the left
- D. Conservative treatment, infusion of adrenomimetics
- E. Pleural cavity drainage

A 58-year-old patient complains of a headache in the occipital region, nausea, choking, opptentes. The presentations appeared after a physical exertion. Objectively: the patient is excited. Face is hyperemic. Skin is pale. Heart sounds are regular, the 2nd aortic sound is accentuated. AP- 240/120 mm Hg, HR-92/min. Auscultation reveals some fine moist rales in the lower parts of the lungs. Liver is not enlarged. ECG shows signs of hypertrophy and left ventricular overload. What is the most likely diagnosis?

- A. Complicated hypertensive crisis, pulmonary edema
- B. Acute myocardial infarction, pulmonary edema
- C. Bronchial asthma exacerbation
- D. Uncomplicated hypertensive crisis
- E. Community-acquired pneumonia

Six months ago, a 5-year-old child was operated for CHD. For the last 3 weeks he has complained of fever, heart pain, aching muscles and bones. Examination results: "whitecoffee" skin colour, auscultation revealed systolic murmur in the region of heart along with a noise in the III-IV intercostal space. Examination of fingertips revealed Janeway lesions. What is your provisional diagnosis?

- A. Infectious endocarditis
- B. Sepsis
- C. Nonrheumatic carditis
- D. Acute rheumatic fever
- E. Typhoid fever

A week ago a 65-year-old patient suffered an acute myocardial infarction, his general condition deteriorated: he complains of dyspnea at rest, pronounced weakness. Objectively: edema of the lower extremities, ascites is present. Heart borders are extended, paradoxical pulse is 2 cm displaced from the apex beat to the left. What is the most likely diagnosis?

- A. Acute cardiac aneurysm
- B. Recurrent myocardial infarction
- C. Acute pericarditis
- D. Cardiosclerotic aneurysm

## E. Pulmonary embolism

A 19-year-old patient complains of dyspnea on exertion. He often has bronchitis and pneumonia. Since childhood, the patient presents with cardiac murmur. Auscultation revealed splitting of the II sound above the pulmonary artery, systolic murmur in 3 intercostal space at the left sternal border. ECG showed right bundle branch block. What is the provisional diagnosis?

- A. Atrial septal defect
- B. Open ductus arteriosus
- C. Aortarctia
- D. Aortic stenosis
- E. Mitral insufficiency

A 63-year-old patient with persistent atrial fibrillation complains of moderate dyspnea. Objectively: peripheral edemata are absent, vesicular respiration is present, heart rate - 72/min, AP- 140/90 mm Hg. What combination of drugs will be most useful in the secondary prevention of heart failure?

- A. Beta-blockers, ACE inhibitors
- B. Beta-blockers, cardiac glycosides
- C. Cardiac glycosides, diuretics
- D. Cardiac glycosides, ACE inhibitors
- E. Diuretics, beta-blockers

A 57-year-old patient had an attack of retrosternal pain that lasted more than 1,5 hours. Objectively: the patient is inert, adynamic, has pale skin, cold extremities, poor volume pulse, heart rate - 120/min, AP- 70/40 mm Hg. ECG shows ST elevation in leads II, III, aVF. What condition are these changes typical for?

- A. Cardiogenic shock
- B. Arrhythmogenic shock
- C. Perforated gastric ulcer
- D. Acute pericarditis
- E. Acute pancreatitis

A 70-year-old patient consulted a doctor about arrhythmic cardiac activity, dyspnea. Objectively: AP- 150/90 mm Hg, extrasystole arrhythmia (10-12 beats per minute), left ventricular systolic dysfunction (ejection fraction at the rate of 42%). Which of antiarrhythmic drugs should be administered as initial therapy in this case?

- A. Amiodarone
- B. Flecainide
- C. Encainide
- D. Moracizine
- E. Digoxin

During dynamic investigation of a patient the increase of central venous pressure is combined with the decrease of arterial pressure. What process is proved by such combination?

- A. Developing of cardiac insufficiency
- B. Depositing of blood in venous channel
- C. Shunting
- D. Presence of hypervolemia
- E. Increase of bleeding speed

A 56-year-old scientist experiences constricting retrosternal pain several times a day while walking for 100-150 m. The pain lasts for up to 10 minutes and can be relieved by nitroglycerine. Objectively: the patient is overweight, heart borders exhibit no abnormalities, heart sounds are rhythmic, Ps - 78 bpm, AP - 130/80 mm Hg. ECG contains low amplitude of T wave in V4-5.

What disease might be suspected?

- A. Stable FC III stenocardia
- B. Unstable stenocardia
- C. Stable FC I stenocardia
- D. Stable FC II stenocardia
- E. Stable FC IV stenocardia

A 58-year-old female patient complains about periodical headache, dizziness and ear noise. She has been suffering from diabetes mellitus for 15 years. Objectively: heart sounds are rhythmic, heart rate is 76/min, there is diastolic shock above aorta, AP is 180/110 mm Hg. In urine: OD - 1,014. Daily loss of protein with urine is 1,5 g. What drug should be chosen for treatment of arterial hypertension?

- A. Inhibitor of angiotensin converting enzyme
- B.  $\beta$ -blocker
- C. Calcium channel antagonist
- D. Thiazide diuretic
- E.  $\alpha$ -blocker

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

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

A 57-year-old man complains of shortness of breath, swelling on shanks, irregularity in cardiac work, pain in the left chest half with irradiation to the left scapula. Treatment is ineffective. On physical exam: heart's sounds are diminished, soft systolic murmur on the apex. Ps - 100/min, arrhythmical, BP - 115/75 mm Hg. The liver is +2 cm, painful. Roentgenoscopy: enlargement of heart shadow to all sides, pulsation is weak. Electrocardiogram (ECG): left ventricular extrasystolia, decreased voltage. What method of investigation is necessary to do to determine the diagnosis?

- A. Echocardiography
- B. Velocimetry
- C. X-ray kymography
- D. ECG in the dynamics
- E. Coronarography

A 60-year-old female patient had been admitted to a hospital for acute transmural infarction. An hour later the patient's condition got worse. She developed progressing dyspnea, dry cough. Respiratory rate - 30/min, heart rate - 130/min, AP - 90/60 mm Hg. Heart sounds were muffled, there was also diastolic shock on the pulmonary artery. The patient presented with medium moist rales in the lower parts of lungs on the right and on the left. Body temperature - 36,4°C. What drug should be given in the

first place?

- A.Promedol
- B.Aminophylline
- C.Dopamine
- D.Heparin
- E.Digoxin

A 67-year-old male complains of dyspnea on exertion, attacks of retrosternal pain, dizziness. He has no history of rheumatism. Objectively: pale skin, acrocyanosis. There are rales in the lower parts of lungs. There is systolic thrill in the II intercostal space on the right, coarse systolic murmur conducted to the vessels of neck. AP- 130/90 mm Hg, heart rate - 90/min, regular rhythm. The liver extends 5 cm under the edge of costal arch, shin edemata are present. Specify the assumed valvular defect:

- A.Aortic stenosis
- B.Pulmonary artery stenosis
- C.Mitral insufficiency
- D.Ventricular septal defect
- E.Tricuspid regurgitation

An 18-year-old patient presents no problems. Percussion reveals that heart borders are displaced to the right and left by 1 cm, there is a coarse systolic murmur with its epicenter within the 4th intercostal space on the left. What is the most informative examination to confirm the clinical diagnosis?

- A.Ventriculography
- B.ECG
- C.PCG
- D.Echocardiography
- E.Polycardiography

An 8-year-old girl periodically has sudden short-term heart pain, sensation of chest compression, epigastric pain, dizziness, vomiting. Objectively: the patient is pale, respiratory rate - 40/min, jugular pulse is present. Ps- 185 bpm, of poor volume. AP- 75/40 mm Hg. ECG taken during an attack shows ectopic Pwaves, QRSwave is not deformed. At the end of an attack a compensatory pause is observed. The most likely cause of the attack is:

- A.Paroxysmal atrial tachycardia
- B.Sinus tachycardia
- C.Paroxysmal ventricular tachycardia
- D.Complete AV-block
- E.Atrialfibrillation

A 58-year-old patient complains of a headache in the occipital region, nausea, choking, opplotentes. The presentations appeared after a physical exertion. Objectively: the patient is excited. Face is hyperemic. Skin is pale. Heart sounds are regular, the 2nd aortic sound is accentuated. AP- 240/120 mm Hg, HR-92/min. Auscultation reveals some fine moist rales in the lower parts of the lungs. Liver is not enlarged. ECG shows signs of hypertrophy and left ventricular overload. What is the most likely diagnosis?

- A.Complicated hypertensive crisis
- B.Acute myocardial infarction, pulmonary edema
- C.Bronchial asthma exacerbation
- D.Uncomplicated hypertensive crisis



### E. Community-acquired pneumonia

The condition of a 3-year-old child with acute non-rheumatic myocarditis has suddenly deteriorated: he presents with anxiety, acrocyanosis, peripheral edemata, dyspnea. Auscultation of lungs reveals fine moist rales on both sides mainly in the lower parts. AP- 65/40 mm Hg. HR- 150/min, heart sounds are muffled, arrhythmic (extrasystole). Liver is +4 cm. Oliguria is present. The child has been diagnosed with acute heart failure. Which method of examination is most informative for assessing the child's status dynamics?

- A. Echocardiography
- B. ECG
- C. Diuresis monitoring
- D. Monitoring of K<sup>+</sup>, Na<sup>+</sup> concentration in blood
- E. 24-hour monitoring of heart rhythm

A 56-year-old patient was undergoing a surgery for suture repair of perforated ulcer. During the operation the cardiomonitor registered ventricular fibrillation. The first-priority measure should be:

- A. Electrical defibrillation
- B. Injection of adrenalin
- C. Injection of lidocaine
- D. Injection of atropine
- E. Injection of calcium chloride

Routine examination of a 16-year-old boy revealed the presence of three heart sounds on auscultation. The third sound is low and occurs in early diastole, there is no additional murmur. In history: pneumonia six months ago. The patient presents no problems. Examination revealed hyposthenia, underdevelopment of muscles. Laboratory and instrumental studies revealed no peculiarities. What is the origin of the additional heart sound?

- A. Physiological III sound
- B. The sound of the mitral valve opening
- C. Protodiastolic gallop rhythm
- D. Pericardial diastolic sound
- E. The sound of the tricuspid valve opening

A 62-year-old patient has DM-2. Diabetes is being compensated by diet and Maninilum. Patient has to undergo an operation for inguinal hernia. What tactics of hypoglycemic therapy should be chosen?

- A. Prescribe the short-acting insulin
- B. Give Glurenorm in place of Maninilum
- C. To continue with the current therapy
- D. Prescribe the long-acting insulin
- E. Prescribe guanylguanidine

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

What disease may be assumed?

- A. Autoimmune thyroiditis
- B. Diffuse toxic goiter

- C. Thyroid carcinoma
- D. Subacute thyroiditis
- E. Juvenile basophilism

A 30-year old woman taken by influenza has empty stomach glycemia at the rate of 11,3 millimole/l, glucosuria at the rate of 25 g/l. The patient is 168 cm tall and weighs 67 kg. What test would be the most informative for the diagnosis specification?

- A. Insulinemia on an empty stomach
- B. Daily glycemia variability
- C. Daily glucosuria variability
- D. Glycemia test an hour after taking meals
- E. Glucose tolerance test

A 52-year-old male patient has an 18 year history of diabetes mellitus. One year ago he had cystitis. The patient takes 0,005 g of maninil thrice a day. Objectively: height - 176 cm, weight - 82 kg. Glycemia variability on an empty stomach is at the rate of 10,3-12,4 millimole/l. Analyses revealed proteinuria at the rate of 0,033 g/l. The most efficient way to prevent diabetic nephropathy progress will be:

- A. To replace maninil with insulin
- B. To increase maninil dosage
- C. To decrease daily caloric content
- D. To supplement the present therapy with insulin
- E. To administer antibacterial therapy

A 34-year-old female patient complains about weakness, 12 kg weight loss within 6 months, sweating, palpitation, irritability. Objectively: III grade thyroid gland is elastic, diffuse enlargement is present, there is also a node in the right lobe. Cervical lymph nodes are not enlarged. What treatment tactics would be the most rational?

- A. Operation after antithyroid therapy
- B. Radioactive iodine administration
- C. Immediate surgical intervention
- D. Conservative antithyroid therapy
- E. Immediate gamma-ray teletherapy

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

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

A 26-year-old patient complains about considerable muscle weakness, dizziness, extended abdominal pain, nausea and vomiting giving no relief. The disease has been gradually developing within 6 months. There was progress of general weakness, skin darkening. The patient fell into grave condition after an ARD: there appeared abdominal pain and frequent vomiting. Objectively: the skin is dry with diffuse pigmentation. Heart sounds are significantly weakened, heart rate - 60/min, AP- 80/40 mm Hg. The abdomen is slightly painful in the epigastric region. In blood: WBCs -  $8,1 \cdot 10^9/l$ , glucose - 3,0 millimole/l. What is the most

likely diagnosis?

- A. Chronic adrenal insufficiency. Addisonian crisis
- B. Acute pancreatitis
- C. Toxic infectious shock
- D. Acute food poisoning
- E. Acute cholecystitis

A 3-year-old child has been diagnosed with type I diabetes mellitus, hyperosmolar coma. The laboratory confirmed the diagnosis. Which laboratory findings are characteristic for such condition?

- A. High hyperglycemia without ketonemia
- B. Hyperglycemia and ketonemia
- C. Hyperglycemia and glucosuria
- D. Hyperglycemia and ketonuria
- E. Hyperglycemia and high indicators of acid-base balance

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

- F. Autoimmune thyroiditis
- G. Diffuse toxic goiter
- H. Thyroid carcinoma
- I. Subacute thyroiditis
- J. Juvenile basophilism

A 47-year-old woman underwent a thyroid gland resection on account of nodular euthyroid goiter. What preparations are most likely to prevent the disease recurrence?

- A. Thyroid hormones
- B. Mercaptoimidazole
- C. Thyrotropin
- D. Potassium iodide
- E. Radioactive iodine

A 39-year-old patient complains of a tumour on the anterior surface of her neck. The tumour has been observed for 2 years. It is nonmobile and has enlarged recently. The patient has a changed tone of voice, a sense of pressure. Objectively: in the left lobe of the thyroid gland a 3 cm node is palpable; it is very dense, tuberos, painless. Cervical lymph nodes are enlarged. Functional status of the thyroid gland is unchanged. What is the most likely diagnosis?

- A. Thyroid gland cancer
- B. Nodular euthyroid goiter
- C. Nodular hyperthyroid goiter
- D. Chronic lymphomatous Hashimoto's thyroiditis
- E. Chronic fibrous Riedel's thyroiditis

For the persons who live in a hot area after an accident at a nuclear object, the greatest risk within the first decade is represented by cancer of:

- A. Thyroid gland
- B. Skin

- C. Reproduction system organs
- D. Breast
- E. Lungs

A 54 y.o patient complains a weakness, weight despite loss, the unchanged appetite, frequent urination, skin itch for six months. Some time ago the patient underwent treatment for furunculosis. She hasn't been examined recently. Objectively: malnutrition, dry skin with signs of scratching. Small lymph nodes can be palpated in the axillary regions. Changes in the internal organs are absent. What testing must be administered in the first place?

- A. Blood sugar test on an empty stomach
- B. Complete blood count
- C. Endoscopy of stomach
- D. Lymph node biopsy
- E. Blood sterility testing

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

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

A 29-year-old patient complains of absent menstruation for a year, milk discharge from the nipples when pressed, loss of lateral visual fields. X-ray shows an expansion of the sella turcica. What is the most likely cause of this condition?

- A. Pituitary tumour
- B. Mammary tumour
- C. Functional disorder of the hypothalamic-pituitary-ovarian system
- D. Ovarian tumor
- E. Pregnancy

A 48-year-old patient was found to have diffuse enlargement of the thyroid gland, exophthalmia, weight loss of 4 kg in 2 months, sweating. Objectively: HR-105/min, BP- 140/70 mm Hg. Defecation act is normal. What kind of therapy is recommended in this case?

- A. Mercazolil
- B. Radioiodine
- C. Propranolol
- D. Lugol's solution
- E. Thyroxine

A 32-year-old female complains of dizziness, headache, palpitation, tremor. For the last several months she has been under outpatient observation for the increased arterial pressure. Since recently such attacks have become more frequent and severe. Objectively: skin is covered with clammy sweat, tremor of the extremities is present. HR- 110/min, AP- 220/140 mm Hg. Heart sounds are muffled. Blood test results: WBCs -  $9,8 \cdot 10^9/l$ , ESR - 22 mm/h. Blood glucose - 9,8 millimole/l. What disease is the most likely cause of this crisis?

- A. Pheochromocytoma

- B. Essential hypertension
- C. Preeclampsia
- D. Primary hyperaldosteronism
- E. Diabetic glomerulosclerosis

A 40-year-old female patient complains of headache, dizziness, muscle weakness, occasional cramps in the extremities. She has been taking antihypertensive medications for 10 years. BP- 180/100 mm Hg. Blood potassium - 1,8 millimole/l, sodium - 4,8 millimole/l. In urine: alkaline reaction, the relative density - 1012, protein and sugar are not found, WBCs - 3-4 in the field of vision, RBCs - 1-2 in the field of vision. Conn's syndrome is suspected. Which drug should be chosen for the treatment of arterial hypertension?

- A. Spironolactone
- B. Propranolol
- C. Enalapril
- D. Hydrochlorothiazide
- E. Clonidine

On the first day after a surgery for diffuse toxic goiter a patient developed difficulty breathing, cold sweats, weakness. Objectively: pale skin, body temperature - 38,5°C, RR - 25/min, Ps- 110/min, AP- 90/60 mm Hg. What early postoperative complication occurred in the patient?

- A. Thyrotoxic crisis
- B. Hypothyroid crisis
- C. Postoperative tetany
- D. Acute thyroiditis
- E. Compression of the trachea by the hematoma

A 45-year-old female patient complaining of general weakness, nausea and vomiting has been delivered to a hospital by the ambulance. Recently there has been a lack of appetite, weight loss. Objectively: hyperpigmentation of skin, blood pressure at the rate of 70/45mmHg, bradycardia. Additional studies revealed the reduced concentration of aldosterone and cortisol in blood, decreased excretion of 17-ketosteroids and 17-oxyketosteroids in the urine, hyponatremia, chloropenia, hypokalemia. What therapeutic measures are required?

- A. To administer glucocorticoids, mineralocorticoids, and a diet with a high content of cooking salt
- B. To prescribe a diet with a high content of cooking salt
- C. To administer prednisolone
- D. To administer aldosterone
- E. To administer insulin

A 35-year-old female patient has gained 20 kg weight within a year with the normal diet. She complains of chill, sleepiness, shortness of breath. The patient's mother and sister are corpulent. Objectively: height - 160 cm, weight - 92 kg, BMI - 35,9. Obesity is uniform, there are no striae. The face is amimic. The skin is dry The tongue is thickened. Heart sounds are muffled. HR- 56/min, BP- 140/100 mm Hg. The patient has constipations, amenorrhea for 5 months. TSH- 28 mkME/l (normal rate - 0,32-5). Craniogram shows no pathology. What is the etiology of obesity?

- A. Hypothyroid
- B. Hypo-ovarian
- C. Hypothalamic-pituitary
- D. Alimentary and constitutive
- E. Hypercorticoid

A 40-year-old female patient complains of having a bulge on the anterior surface of neck for 5 years. Objectively: Ps- 72 bpm, arterial pressure - 110/70 mm Hg, in the right lobe of thyroid gland palpation reveals a mobile 4x2 cm node, the left lobe is not palpable, the basal metabolic rate is 6%. What is the most likely diagnosis?

- A. Nodular euthyroid goiter
- B. Nodular hyperthyroid goiter
- C. Riedel's thyroiditis
- D. Mixed euthyroid goiter
- E. The median cervical cyst

A 39-year-old female patient complains of dyspnea when walking, palpitation, edemata in the evening. The patient's height is 164 cm, weight - 104 kg. Objectively: overnutrition. Heart sounds are weak, and tachycardia is present. The menstrual cycle is not broken. Blood sugar is 5,6 mmol/l, ACTH-response tests revealed no alterations. X-ray of the turkish saddle revealed no pathology. What disease is it?

- A. Alimentary obesity
- B. Climax
- C. Pituitary obesity
- D. Diabetes mellitus
- E. Cushing's syndrome (primary hypercortisolism)

A 39-year-old female patient complains of rapid fatigability, drowsiness, dry skin, hair loss, swelling of the face. A month ago, she underwent a surgery for thyrotoxicosis. The patient has the following gland dysfunction:

- A. Thyroid (hypothyroidism), due to inadequate operative technique
- B. Pituitary, due to a tumor
- C. Adrenal
- D. Parathyroid, due to the gland removal during surgery
- E. Ovarian, due to a tumor

A 24-year-old male patient had been diagnosed with class III diffuse toxic goiter. There is moderate hyperthyroidism. A surgery was suggested, and the patient agreed to it. What preoperative measures should be taken for prevention of thyrotoxic crisis in the postoperative period?

- A. Administration of antithyroid drugs
- B. Minimally invasive surgical techniques
- C. Bed rest
- D. Detoxification therapy
- E. Administration of corticosteroids

A patient with autoimmune thyroiditis accompanied by multinodular goiter underwent the right lobe ectomy and subtotal resection of the left lobe. What drug should be administered to prevent postoperative hypothyroidism?

- A. L-thyroxine
- B. Merkazolil
- C. Iodomarin
- D. Lithium drugs
- E. Insulin

A 49-year-old female patient has type 1 diabetes of moderate severity. The disease is complicated by retinopathy and polyneuropathy. Besides that, repeated analyses of the daily urinary excretion of albumin revealed microalbuminuria (200- 300 mg/day). Glomerular filtration rate is 105 ml/min. Blood pressure is within normal range. Normalization of the following indicator should be the first-priority task in the secondary prevention of diabetic nephropathy:

- A. Glycosylated hemoglobin
- B. C-peptide
- C. Blood insulin
- D. Fasting glucose
- E. Glycemia 2 hours after a meal

After having the flu, a 39-year-old male patient with a history of Addison's disease developed a condition manifested by weakness, depression, nausea, vomiting, diarrhea, hypoglycemia. AP- 75/50 mm Hg. Blood test results: low corticosterone and cortisol, 13-oxycorticosteroids, 17-oxycorticosteroids levels. What condition developed in the patient?

- A. Acute adrenal insufficiency
- B. Acute gastritis
- C. Acute enterocolitis
- D. Collapse
- E. Diabetes mellitus

After a holiday in the Crimea, a 49- year-old male patient with a history of lung tuberculosis felt increased weakness, periodic dizziness, easing bowel movements with abdominal pain, the need for additional salting his meals. The patient has noted that his condition improves after some sweet tea and validol taken sublingually. Objectively: there is an intense darkening of skin, AP- 70/50 mm Hg, glycemia is 3,0 mmol/l. What is the possible cause of health deterioration:

- A. Chronic adrenal insufficiency
- B. Diabetes mellitus
- C. Coronary artery disease
- D. Chronic pancreatitis
- E. Pulmonary tuberculosis

Male 30 y.o., noted growing fingers and facial skull, changed face. Complains of poor eyesight, weakness, skin darkening, loss of body weight. X-ray shows broadening of sella turcica, thinning of tuberculin sphenoidale, signs of increased intracranial pressure. What diagnosis can you make?

- A. Adenoma of hypophysis
- B. Encephalitis of truncus
- C. Optico - hiasmatic arachnoiditis
- D. Adrenal gland tumor
- E. Tumor of pondo-cerebellar corner

A 62 y.o. patient with DM-2. Diabetes is being compensated by diet and Maninilum. Patient has to undergo an operation for inguinal hernia. What the tactics of hypoglycemic therapy should be used?

- A. Prescribe fast-acting insulin
- B. Give Glurenorm in place of Maninilum
- C. Continue with the current therapy
- D. Prescribe long-acting insulin
- E. Prescribe guanyl guanidines

A 32 y.o. patient complains of severe weakness, tremor of extremities. On physical examination, there is loss of body weight, wet and warm skin. The thyroid gland is enlarged up to the 3rd degree, painless, elastic. Ps- 108 bpm. BP- 160/55 mm Hg. The rest is in norm. What can be diagnosed?

- A. Diffuse toxic goitre of the 3rd degree, thyrotoxicosis of the average degree
- B. Diffuse euthyroid goitre of the 3rd degree
- C. Chronic autoimmune thyroiditis, hypertrophic type
- D. Chronic fibrous thyroiditis
- E. Toxic adenoma of the thyroid gland

A 38 y.o. patient was urgently admitted to the hospital with complaints of sudden weakness, dizziness, loss of consciousness, body weight loss, nausea, vomiting, severe pain in epigastric area, diarrhea, skin hyperpigmentation. What is the most probable diagnosis?

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

An unconscious patient presents with moist skin, shallow breathing. There are signs of previous injection on the shoulders and hips. BP- 110/70 mm Hg. Tonus of skeletal muscles and reflexes are increased. Cramps of muscles of the extremities are seen. What is the most likely disorder?

- A. Hypoglycemic coma
- B. Hyperglycemic coma
- C. Hyperosmolar coma
- D. Hyperlactacidotic coma
- E. Stroke

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

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

A 26 y.o. male patient with postoperative hypothyroidism takes thyroxine 100mg 2 times a day. He has developed tachycardia, sweating, irritability, sleep disorder. Determine further treatment tactics.

- A. To decrease thyroxine dosage
- B. To increase thyroxine dosage
- C. To administer beta-blockers
- D. To add mercaptil to the treatment
- E. To administer sedatives

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

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



A 49 y.o. female patient presents with acute attacks of headache associated with pulsation in temples, increasing AP to 280/140 mm Hg. Pheochromocytoma is suspected. What is the mechanism of hypertensive crisis in this patient?

- A. Increasing of catecholamines concentration
- B. Increasing of aldosterone level in blood
- C. Increasing of plasma renin activity
- D. Increasing of vasopressin excretion
- E. Increasing of thyroxine excretion

A 33 y.o. woman has been suffering from DM (diabetes mellitus) for 5 years. For the last 3 years she has been taking more than 100 units of insulin per day. Body weight has increased up to 10kg. Fasting blood glucose is 13 mmol/L, glucoseuria - 3%. Generalized microangiopathy. By increasing the dose of insulin the parameters of glycemia do not change. The diagnosis is:

- A. DM 1st type, severe form, decompensation, insulin resistant
- B. DM 2nd type, severe form, decompensation
- C. DM 1st type, severe form, subcompensation, Somoji phenomenon
- D. DM 2nd type, moderate form, Zbrodki phenomenon
- E. DM 1st type, severe form, decompensation, allergic reaction to insulin

Generalized low voltage on an ECG (QRS deflection < 5 mm in limb leads and < 10 mm in precordial leads) may be a marker for all of the following disorders

EXCEPT:

- A. Hyperthyroidism
- B. Pericardial effusion
- C. Cardiac transplant rejection
- D. Amyloidosis
- E. Coronary artery disease

A 34 year old woman in the 10th week of gestation (the second pregnancy) consulted a doctor of antenatal clinic in order to be registered there. In the previous pregnancy hydramnion was observed, the child's birth weight was 4086 g. What examination method should be applied in the first place?

- A. The test for tolerance to glucose
- B. Determination of the contents of fetoprotein
- C. Bacteriological examination of discharges from vagina
- D. A cardiophonography of fetus
- E. US of fetus

A 50 year old woman with a 2-year history of mild, diffuse, tender thyroid enlargement complains of 10 pound weight gain and fatigue. What is the most probable diagnosis?

- A. Hashimoto's thyroiditis
- B. Riedel's thyroiditis
- C. Subacute thyroiditis
- D. Suppurative thyroiditis
- E. Papillary thyroid carcinoma

During examination a patient is unconscious, his skin is dry and hot, face hyperemia is present. The patient has Kussmaul's respiration, there is also smell of acetone in the air. Symptoms of peritoneum irritation are positive. Blood sugar is at the rate of 33 millimole/l. What emergency actions should be taken?

- A. Intravenous infusion of short-acting insulin
- B. Intravenous infusion of glucose along with insulin
- C. Introduction of long-acting insulin
- D. Intravenous infusion of neohaemodesum along with glutamic acid
- E. Intravenous infusion of sodium chloride saline

A 23 y.o. woman who suffers from insulin-dependent diabetes was admitted to the acute care department with mental confusion, inadequate anxious behaviour, hyperhidrosis, excessive salivation, tachycardia. What examination will be a primary task?

- A. Blood test for sugar
- B. Clinical blood analysis
- C. Plasma electrolytes test
- D. Gaseous composition of arterial blood
- E. Blood urea and creatinine test

A 63 y.o. patient was operated on account of big multinodular euthyroid goiter. Despite of technical difficulties a forced subtotal resection of both parts of the thyroid gland was performed. On the 4-th day after the operation the woman had cramps of face muscles and upper extremities, stomach ache. Positive Chvostek's and Trousseau's signs. What is the most probable cause of such condition?

- A. Insufficiency of parathyroid glands
- B. Postoperative hypothyroidism
- C. Thyrotoxic crisis
- D. Injury of recurrent nerve
- E. Tracheomalacia

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

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

A female patient consulted a doctor about gain in weight, chill, edemata, dry skin, sleepiness, problems with concentration. Objectively: the patient's height is 165 cm, weight is 90 kg, gynoid body proportions, to- 35,80 C, ESR-58/min, AP- 105/60mm Hg. Heart sounds are weakened, bradycardia is present. Other internal organs have no changes. Thyroid gland is not palpable. Mammary glands ooze milk droplets. Hormonal study revealed rise of TSH and prolactin concentration, reduction of T4. What factor caused obesity?

- A. Primary hypothyroidism
- B. Secondary hypothyroidism
- C. Prolactinoma
- D. Hypopituitarism
- E. Adiposogenital dystrophy