

Test base for intermediate certification in the discipline "Outpatient Therapy" (70% of the tasks are presented - 582/832tasks)

What condition may develop 15-30 minutes after re-administration of the antigen as a result of the increased level of antibodies, mainly IgE, that are adsorbed on the surface of target cells, namely tissue basophils (mast cells) and blood basophils?

1. Anaphylaxis
2. Serum sickness
3. Immune complex hyperresponsiveness
4. Delayed-type hypersensitivity
5. Antibody-dependent cytotoxicity

On allergological examination a patient has been diagnosed with pollinosis. Specific desensitization can be performed by:

1. Intermittent administration of allergen
2. Antihistamines
3. Administration of decongestions
4. Glucocorticoids
5. Administration of saline

A girl receives antibiotics of the penicillin group for acute bronchitis. On the third day of treatment she developed allergic dermatitis. Which drug should be administered?

1. Loratadine
2. Levamisole
3. Ephedrine hydrochloride
4. Beclomethasone
5. Cromolyn sodium

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?

1. Household allergens
2. Pollen
3. Infectious
4. Chemicals
5. Psychogenic

A 22-year-old woman ate some seafood. 5 hours later the trunk and the distal parts of limbs got covered with small itchy papules which were partially fused together. After one day, the rash disappeared spontaneously. Specify the hypersensitivity mechanism underlying these changes:

1. Atopy (local anaphylaxis)
2. Systemic anaphylaxis
3. Immune complex hypersensitivity
4. Antibody-dependent cell-mediated cytotoxicity
5. Cellular cytotoxicity

A child was taken to a hospital with focal changes in the skin folds. The child was anxious during examination, examination revealed dry skin with solitary papulous elements and illdefined lichenification zones. Skin eruption was accompanied by strong itch. The child usually feels better in summer, his condition is getting worse in winter. The child has been artificially fed since he was 2 months old. He has a history of exudative diathesis. Grandmother by his mother's side has bronchial asthma. What is the most likely diagnosis?

1. Atopic dermatitis
2. Contact dermatitis
3. Seborrheal eczema
4. Strophulus

5. Urticaria

After a 10-year-old child had been bitten by a bee, he was delivered to a hospital. There were lip, face and neck edemata. The patient felt hot and short of breath. Objectively: breathing was laboured and noisy. There were foamy discharges from the mouth, cough. The skin was pale and cold. There was bradypnoea. Heart sounds were muffled and arrhythmic. Thready pulse was present. What diagnosis was made by the expert in resuscitation?

1. Anaphylactic shock
2. Quincke's edema
3. Bronchial asthma
4. Acute cardiovascular collapse
5. Cerebral coma

A 45 yo. 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° - 36,5°C, RR16/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?

1. pH = 4,0-5,0
2. pH = 1,0-2,0
3. pH = 5,0-6,0
4. pH = 3,0-4,0
5. 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?

1. Acute stomach ulcer
2. Hemorrhage from varicose dilatated veins of esophagus
3. Thrombosis of mesenteric vessels
4. Hepatocellular insufficiency
5. Portal hypertension

A patient is 65 y.o. He has been a smoker for 40 years. He 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 phosphatase and glutaminy-pyruvate transferase. Clinical urine analysis showed positive bilirubin reaction and negative urobilinogene reaction. Where is the initial process that caused these changes?

1. In pancreas
2. In common bile duct
3. In gallbladder
4. In liver
5. In duodenum

A 60 y.o. woman complains of unbearable pains in the right hypochondrium. In the medical history: acute pancreatitis. Body temperature is 38,20C. Objectively: sclera icteritiousness. No symptoms of peritoneum 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?

1. Chronic pancreatitis
2. Chronic cholecystitis
3. Acute cholangitis
4. Cancer of pancreas
5. Acute cholecystitis

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?

1. Irritable bowels syndrome
2. Dispancreatism
3. Pseudomembranous colitis

4. Crohn's disease
5. Celiac disease

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.

1. Menetrier's disease
2. Chronic gastritis of type C
3. Chronic gastritis of type B
4. Peptic ulcer of stomach
5. Chronic gastritis of type A

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 mmol/L , ALT- 1,8 mmol/L , alkaline phosphatase - 4,6 mmol/L , cholesterol 9,2 mmol/L , antimitochondrial antibodies M2 in a high titer. What is the probable diagnosis?

1. Alcoholic liver cirrhosis
2. Primary liver cancer
3. Acute viral hepatitis B
4. Chronic viral hepatitis B
5. Primary biliary liver cirrhosis

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:

1. Haemolytic jaundice
2. Carcinoma of the head of the pancreas

3. Metastatic disease of liver
4. Malignant biliary stricture
5. Infectious hepatitis

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 5mm ulcer on the anterior wall of duodenum. Urease test is positive. What is the most probable leading mechanism of disease development?

1. Reduced prostaglandin synthesis
2. Disorder of gastric motor activity
3. Helicobacterial infection
4. Autoantibody production
5. Dietary allergy

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 grayish, glossy, with admixtures of undigested food), progressing weight loss. Change of symptom set is caused by joining of:

1. Irritable bowels syndrome
2. Syndrome of lactase deficiency
3. Chronic enterocolitis
4. Exocrine pancreatic insufficiency
5. Endocrine pancreatic insufficiency

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:

1. Gastritis of type B
2. Gastritis of type A
3. Menetrier's gastritis

4. Rigid antral gastritis
5. Reflux-gastritis

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:

1. Acute ileitis
2. Ileocecal tuberculosis
3. Ulcerative colitis
4. Crohn's disease of the terminal ileum
5. Perforated Meckel's diverticulum

A 28-y.o. male patient felt nausea, excitement and confusion in 2 hours after eating of unknown mushrooms. On exam: disorientation, confused speech. Then the patient ceased to respond to speech contact, and exhaled the air with specific smell. What syndrome should be diagnosed?

1. Icteric syndrome
2. Acute liver failure
3. Hepatolienal syndrome
4. Cholestatic syndrome
5. Acute renal failure

A 49-y.o. male patient complains of intensive pain in the epigastric area. Anamnesis: peptic ulcer disease of the duodenum for 10 years. On exam: abdominal wall is strained, very intensive pain in the epigastric area. What is the most probable diagnosis?

1. Acute pancreatitis
2. Exacerbation of peptic ulcer disease
3. Ulcer penetration to the pancreas
4. Ulcer perforation
5. E. Thrombosis of mesenteric vessels

A

65-y.o.

male patient with chronic heart failure treated with digoxin was hospitalized with sudden intensive pain in the abdomen. On exam: pulse - 112/min, irregular, BP - 110/70 mm Hg, the abdominal wall is strained, very intensive pain on palpation, peristalsis sounds are not heard on auscultation. On plain X-ray of the abdomen: air-fluid levels in intestines. On ECG: atrial fibrillation, ventricular rate 115/min. What is the most probable diagnosis?

1. Thrombosis of mesenteric vessels
2. Crohn's disease
3. Digitalis toxicity
4. Myocardial infarction
5. Diverticulosis

A 55-y.o. female patient complains of intensive girding pain in the epigastric area, nausea, vomiting, flatulence, weakness. On exam: pulse - 100/min, irregular, BP - 110/60 mmHg, coated tongue, flatulence, girding pain is detected in on the both sides of the epigastric area. What is the most probable diagnosis?

1. Ulcer perforation
2. Thrombosis of mesenteric vessels
3. Acute cholecystitis
4. Diverticulosis
5. Acute pancreatitis

On exam of a 46-y.o. male patient: ascitis, marked splenomegaly, liver size (after Kurlov's method) - 11x9x8 cm. Anamnesis: abdominal trauma, gastric bleeding. AST - 0.46 mmol/g*L; ALT - 0.68 mmol/g*L; total bilirubin - 21 mcmmol/L, unconjugated bilirubin - 10 mcmmol/L. What is the most probable diagnosis?

1. Thrombosis of hepatic veins
2. Constrictive pericarditis

3. Liver cirrhosis
4. Thrombosis of vena cava inferior
5. Thrombosis of portal vein

Condition of a 65-y.o. female patient with micronodular cryptogenic cirrhosis worsened: confusion, tremor, and increase in jaundice. What investigation can explain the cause of the worsening?

1. Measurement of α -fetoprotein
2. Measurement of ammonia
3. Measurement of ALT and AST
4. Measurement of alkaline phosphatase
5. E. Measurement of cholesterol

A 51-y.o. female patient complains of pain in the right hypochondrium associated with fatty meals, nausea, and flatulence. On exam: t° - 36.9°C , coated tongue, flatulence, pain on palpation in the point of gallbladder. What diagnostic investigation should be done first of all?

1. Duodenoscopy
2. Duodenal probing
3. Ultrasonography
4. Plain X-ray
5. E. Cholecystography

A 55-y.o. female patient with liver cirrhosis who was treated with furosemide for her edema and ascites complains of severe muscle weakness. On exam: hepatosplenomegaly, ascites, and peripheral edema. On ECG: horizontal depression of ST segment, flattened T wave, U wave, prolonged Q-T interval. What urgent treatment is indicated?

1. Lidocaine i.v.

2. Furosemedi.v.
3. Calcium chloride solutioni.v.
4. D.Physiologic NaCl solution i.v.
5. KCl solution i.v.

A 63-y.o. female patient complains of intensive spastic pains in the abdomen which have been lasting for about 1 hour. Anamnesis: The patient periodically suffers from pains of such a pattern, and also alternating constipation and diarrhea for the last 5 years. After defecation pains decreased. On exam: pain on palpation of parts of the colon. CBC: Hb - 135 g/L, Leu. - $5.7 \times 10^9/L$, ESR - 8 mm/h. What is the most probable diagnosis?

1. Crohn's disease
2. B. Ulcerative colitis
3. C. Tumor of the colon
4. D. Irritable bowel syndrome
5. E. Ischemic colitis

A 38 year old 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?

1. Acute pancreatitis
2. Renal colic
3. Acute enterocolitis
4. Perforative gastric ulcer
5. Acute appendicitis

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

1. Gastritis of type B
2. Gastritis of A type
3. Reflux - gastritis
4. Menetrier's gastritis
5. Rigid antral gastritis

The patient has been in the hospital. The beginning of the disease was gradual: nausea, vomiting, dark urine, acholic stools, yellowness of the skin and scleras. The liver is protruded by 3 cm. Jaundice was intensified on the 14th day of the disease. The liver diminished in sizes. Due to what complication of viral hepatitis, has the patient's condition worsened?

1. Hepatic encephalopathy
2. Meningitis
3. Relapse of viral hepatitis
4. Cholangitis
5. Infectious-toxic shock

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

1. Ulcerative colitis
2. Gastroenteritis
3. Carcinoid syndrome
4. Zollinger-Ellison syndrome
5. Granulomatous colitis

59-year-old man has sings of parenchymatous jaundice and portal hypertension. On histological examination of liver bioptate revealed that beam-lobule structure is affected, fat dystrophy of hepatocytes, pseudo-lobules with periportal lympho-macrophage infiltration. What is the most probable diagnosis?

1. Liver cirrhosis
2. Alcohol hepatitis
3. Chronic hepatosis
4. Viral hepatitis
5. Toxic hepatitis

What variant of chronic gastritis is most probable at the patient with cholecystitis in case of absence Helicobacter pylori?

1. Chronic gastritis type C
2. Chronic gastritis type A
3. Chronic gastritis type B
4. Chronic gastritis type A and B
5. None of them

What variant of chronic gastritis is most probable at the patient with low acid-forming function of stomach mucous and the B12-deficiency anemia?

1. Chronic gastritis type A
2. Chronic gastritis type C
3. Chronic gastritis type B
4. Chronic gastritis type A and B
5. None of them

At the patient with cirrhosis of liver thrombocytopenia and leukopenia are sings of:

1. Hypersplenism
2. Cholestatic syndrome
3. Cytolytic syndrome
4. Immunoinflammatory syndrome
5. Syndrome of hepato-cellular insufficiency

At patient, vomiting with blood, general weakness, dizziness, have appeared. Two years ago cirrhosis of liver was diagnosed. Inspection is revealed pallor of skin, hepatosplenomegaly. Pulse is 98 per minute, blood pressure - 100/70 mm Hg. Blood analysis : Er - $3,5 \cdot 10^{12}/l$, Hb - 100 g/l, Ht - 0,34. What diagnosis is most probable?

1. Bleeding from varicose veins of esophagus
2. Bleeding from stomach ulcer
3. Bleeding from duodenal ulcer

4. Acute hepatic failure
5. Perforation of duodenal ulcer

The patient 32 years complains of the general weakness, dizziness. The black stool was two days ago. Skin of patient is pale. Pulse is 100 beats per minute, blood pressure - 90/60 mm Hg. What diagnosis is most probable?

1. Bleeding from duodenal ulcer
2. Polyp of esophagus
3. Bleeding from a stomach ulcer
4. Nonspecific ulcerous colitis
5. Polyposis of large intestine

Patient, 68 years old, complains of progressing weakness, fatigue, absence of appetite, loss of weight, discomfort in stomach, nausea and pains in stomach without connection of taking food. What diagnosis should be assumed in this case?

1. Cancer of stomach
2. Peptic ulcer
3. Polyp of stomach
4. Chronic gastritis
5. None of them

Patient complains of cramping pains in the right hypochondrium, mild pyrexia, nausea, bitter taste, fatigue, irritability. Inspection is revealed emotional lability, icteritiousness sclera, morbidity during palpation of gall-bladder. Determine the initial diagnosis.

1. Chronic cholecystitis
2. Chronic gastritis
3. Chronic duodenitis
4. Pancreatitis
5. Biliary dyskinesia

Portacaval encephalopathy is treated with:

1. Lactulose
2. Diuretics
3. Large amounts of proteins
4. Emergency portal-systemic shunt surgery
5. Antibiotics

The patient complains of dull ache in the right hypochondrium itchy skin. In the childhood he had virus hepatitis. Physical examination: abdomen is increased due to ascites; on anterior wall of it is enlarged veins, umbilicus is stuck out, spleen is increased. Define initial diagnosis.

1. Cirrhosis of liver
2. Cancer of liver
3. Cancer of pancreas head
4. Chronic cholecystitis
5. Chronic hepatitis

All are complications of ulcerative colitis, except:

1. Oesophageal varices
2. Haemorrhage
3. Stricture
4. Malignant change
5. Polyposis

44 years old patient complains of intensive pain in epigastria and heartburn. Duodenal ulcer is repeatedly revealed. For the first time the ulcer was diagnosed two years ago, it wasn't treated. What from these schemes of treatment is optimum in this case?

1. Clarithromycin, amoxicillin, omeprazole, De-Nol
2. Amoxicillin, no-spa, ranitidine
3. Amoxicillin, metronidazole, ranitidine, omeprazole
4. Oxacillin, metronidazole, famotidine, almagel
5. Metronidazole, solcoseryl, almagel

Which is the diagnostic test in pancreatic insufficiency:

1. Schilling test
2. Serum lipase
3. Serum amylase
4. Fecal fat estimation

In patient with jaundice the level of direct bilirubin has increased. The direct bilirubin is:

1. Conjugated bilirubin
2. Verdoglobulin
3. Unconjugated bilirubin
4. Biliverdin
5. Connected with albumin

The normal serum transferrin level is:

1. 1,0 - 2,0 g/l
2. 1,5 - 3,0 g/l
3. 2,0 - 4,0 g/l
4. 3,0 - 5,0 g/l
5. 50 - 100 g/l

The normal serum ferritin level for adults (Male) is:

1. 2-25 mcg/l
2. 10-150 mcg/l
3. 20-250 mcg/l
4. 200-2500 mcg/l

5. 280-3700 mcg/l

The normal serum ferritin level for adults (Female) is:

1. 2-25 mcg/l

2. 10-120 mcg/l

3. 20-250 mcg/l

4. 200-2500 mcg/l

5. 280-3700 mcg/l

Hyperchromic hyporegenerative macrocytic megaloblastic anemia. In erythrocytes pathological findings (Jolly bodies, Cabot's rings), degenerative changes (poikilocytosis, anisocytosis). Leukopenia with hypersegmentation of nucleus of neutrophils, thrombocytopenia. This Hematological characteristics is typical for:

1. Fanconi anemia

2. Aplastic anemia

3. Anemia of pregnancy

4. Anemia of renal failure by insufficient erythropoietin production

5. B12 deficiency anemia

A 45 y.o. patient was admitted to the hospital with stopped repeated ulcerative bleeding. He was pale and exhausted. Blood count: Hb- 77 g/l, Ht- 0,25.

In view of anemia there were made two attempts of blood transfusion of the same group - A(II)Rh+. In both cases the transfusion had to be stopped because of development of anaphylactic reaction. What transfusion medium would be advisable in this case?

1. Washed erythrocytes
2. Erythrocytic mass (native)
3. Erythrocytic suspension
4. Fresh citrate blood
5. Erythrocytic mass poor in leukocytes and thrombocytes

A 54 y.o. patient complains of weakness, dizziness, heaviness in the upper part of abdomen, paresthesia of toes and fingers. Objectively: skin icteritiousness, tongue is crimson, smooth. Hepatomegaly. In blood: Hb- 90 g/l, erythrocytes - $2,3 \cdot 10^{12}/l$, reticulocytes - 0,2%; color index - 1,2, macrocytosis; Jolly's bodies, Cabot's ring bodies. What medication is the most appropriate for treatment?

1. Prednisolone
2. Dyspherol
3. Vitamin B12
4. Feroplex
5. Packed red blood cells

Substitution of the glutamic acid on valine was revealed while examining initial molecular structure. For what inherited pathology is this typical?

1. Favism
2. Thalassemia
3. Minkowsky-Shauffard disease

4. Sickle-cell anemia
5. B12 deficiency anemia

An alcoholic patient being treated for tuberculosis has an increase in serum iron and transferrin saturation. Match the clinical description with the most likely diagnosis.

1. Anemia of chronic disease
2. Iron-deficiency anemia
3. Thalassemia
4. Anemia of renal disease
5. Sideroblastic anemia

A 30 y.o. man complained of fatigue, loss and brittle nails. The examination revealed pallor of skin, Ps- 94/min, BP-110/70 mm Hg. On blood count: Hb- 90 g/L, RBC- $3,5 \cdot 10^{12}/L$, C.I.- 0,7; ESR- 20 mm/h. Serum iron level was 8,7 $\mu\text{mol}/L$. What treatment would you initiate?

1. Packed RBCs transfusion
2. Blood transfusion
3. Ferrous sulfate orally
4. Iron dextrin injections
5. Vitamin B12 intramuscularly

A 39 y.o. man has episodes of intravascular hemolytic anemia. Please select the one most likely immunologic deficiency.

1. Wiskott-Aldrich syndrome
2. Decay-accelerating factor deficiency

3. Immunoglobulin A deficiency
4. Severe combined immunodeficiency
5. Ataxia telangiectasia

Patient O., 35 year-old, mother of many children, complain of quick fatigue, palpitation, fragile nails, falling of hair. RBC- $2,3 \times 10^{12}/L$, Hb -65g/L, ЦП - 0,7, reticulocytes - 0,5, Thrombocytes - $200 \times 10^9/L$, L - $6,6 \times 10^9/L$, Stab - 2%, Segmental - 56%, Eo - 2%, п - 1%, L - 29%, г - 10%, anisocytosis, poikilocytosis, ESR – 5 mm/h. Your diagnosis?

1. B12 or folic acid deficiency anemia
2. Hemolytic anemia
3. Iron deficiency anemia
4. Sideroachrestic anemia
5. Aplastic anemia

A 55-year-old male is being evaluated for constipation. There is no history of prior gastrectomy or of upper GI symptoms. Hemoglobin is 10 g/dL, mean corpuscular volume (MCV) is 72 fL, serum iron is 4 $\mu\text{g}/\text{dL}$ (normal is 50 to 150 $\mu\text{g}/\text{dL}$), iron-binding capacity is 450 $\mu\text{g}/\text{dL}$ (normal is 250 to 370 $\mu\text{g}/\text{dL}$), saturation is 1% (normal is 20 to 45%), and ferritin is 10 $\mu\text{g}/\text{L}$ (normal is 15 to 400 $\mu\text{g}/\text{L}$). The next step in the evaluation of this patient's anemia is

1. Red blood cell folate
2. Iron absorption studies
3. Colonoscopy
4. Bone marrow examination
5. Reticulocyte count and blood smear

A 50-year-old woman complains of pain and swelling in her proximal interphalangeal joints, both wrists, and both knees. She complains of morning stiffness. She had a hysterectomy 10 years ago. Physical exam shows swelling and thickening of the PIP joints. Hemoglobin is 10.3 g/dL, MCV is 80 fL, serum iron is 8 $\mu\text{mol/L}$, iron-binding capacity is 200 $\mu\text{g/dL}$ (normal is 250 to 370 $\mu\text{g/dL}$), and saturation is 10%. The most likely explanation for this woman's anemia is

1. Occult blood loss
2. Vitamin deficiency
3. Anemia of chronic disease
4. Sideroblastic anemia
5. Aplastic anemia

A 35-year-old female who is recovering from *Mycoplasma pneumoniae* develops increasing weakness. Her Hb is 9.0 g/dL and her MCV is 110. The best test to determine whether the patient has a hemolytic anemia is:

1. Serum bilirubin
2. Reticulocyte count and blood smear
3. *Mycoplasma* antigen
4. Serum LDH
5. Sternal puncture

After undergoing surgical resection for carcinoma of the stomach, a 60-year-old male develops numbness in his feet. On exam, he has lost proprioception in the lower extremities and has a wide-based gait and positive Romberg sign. A peripheral blood smear shows macrocytosis and hypersegmented polymorphonuclear leukocytes. The neurologic dysfunction is secondary to a deficiency of which vitamin?

1. Folic acid
2. Thiamine
3. Vitamin K
4. Vitamin B12
5. Vitamin C

A 25 year old patient complains about weakness, dizziness, haemorrhagic skin rash. She has been suffering from this for a month. Blood count: erythrocytes $1,0 \cdot 10^{12}/l$, Hb- 37 g/l, colour index - 0,9, leukocytes $1,2 \cdot 10^9/l$, thrombocytes $42 \cdot 10^9/l$. What diagnostic method will be the most effective?

1. Abdominal ultrasound
2. Liver biopsy
3. Spleen biopsy
4. Coagulogram
5. Sternal puncture

A full-term newborn child has a diagnosis newborn's Rh-factor hemolytic disease. Bilirubin rate is critical. The child's blood group is B(III), his mother's blood group - A(II). The child has indication for hemotransfusion. What donor blood must be chosen?

1. Blood group O(I)Rh-
2. Blood group A(II)Rh-
3. Blood group A(II)Rh+
4. Blood group B(III)Rh-
5. Blood group B(III)Rh+

A 15 y.o. patient has developmental lag, periodical skin yellowing. Objectively: spleen is 16x12x10 cm large, cholecistolithiasis, skin ulcer on the lower third of his left crus. Blood count: erythrocytes - $3,0 \cdot 10^{12}/L$, Hb- 90 g/L, C.I.- 1,0, microspherocytosis, reticulocytosis. Blood bilirubin - 56 mmole/L, indirect bilirubin -38 mmole/L. Choose the way of treatment:

1. Splenectomy
2. Portocaval anastomosis
3. Spleen transplantation
4. Omentosplenopexy
5. Omentohepatopexy

A 14 y.o. girl complains of profuse bloody discharges from genital tracts during 10 days after suppression of menses for 1,5 month. Similar bleedings recur since 12 years on the background of disordered menstrual cycle. On rectal examination: no pathology of the internal genitalia. In blood: Hb- 70 g/L, RBC- $2,3 \cdot 10^{12}/L$, Ht-20. What is the most probable diagnosis?

1. Polycyst ovarian syndrome
2. Hormonoproduktive ovary tumor
3. Werlhof's disease
4. Noncomplete spontaneous abortion
5. Juvenile bleeding, posthemorrhagic anemia

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1. Aplastic anemia
2. B12 deficiency anemia

3. Anemia of pregnancy
4. Anemia of renal failure by insufficient erythropoietin production
5. Fanconi anemia

Substitution of the glutamic acid on valine was revealed while examining initial molecular structure. For what inherited pathology is this typical?

1. Sickle-cell anemia
2. Favism
3. Thalassemia
4. Minkowsky-Shauffard disease
5. B12 deficiency anemia

A 38-year-old female presents with recurrent sore throats. She is on no medications, does not use ethanol, and has no history of renal disease. Physical exam is normal. A CBC shows Hb of 9.0 g/dL, MCV is 85 fL (normal), white blood cell count is 2,000/ μ L, and platelet count is 30,000/ μ L. The best approach to diagnosis is:

1. Erythropoietin level
2. Serum B12
3. Bone marrow biopsy
4. Liver and spleen scan
5. Spleen biopsy

A 20-year-old black male with sickle cell anemia (SS homozygote) has had several episodes of painful crises. The least likely physical finding in this patient is:

1. Scleral icterus
2. Systolic murmur
3. Splenomegaly
4. Ankle ulcers
5. Palpitation

A 30-year-old black man plans a trip to India and is advised to take prophylaxis for malaria. Three days after beginning treatment, he develops dark urine, pallor, fatigue, and jaundice. Hematocrit is 30% (it had been 43%) and reticulocyte count is 7%. He stops taking the medication. Treatment should consist of:

1. Splenectomy
2. Administration of methylene blue
3. Administration of vitamin E
4. Exchange transfusions
5. No additional treatment is required

A 58-year-old Scandinavian male presents with shortness of breath and is found to have anemia. Peripheral blood smear shows macrocytosis and hypersegmented polyps. The patient also has postural hypotension. Skin shows both vitiligo and hyperpigmentation. Romberg sign is positive. Serum sodium is 120 meq/L (normal is 136 to 145 meq/L) and potassium is 5.2 meq/L (normal is 3.5 to 5.0 meq/L). Urinary sodium is increased. Which of the following is correct?

1. The patient's symptoms will be explained on the basis of folate deficiency
2. Only 50% of such patients will have parietal cell antibody

3. The patient is likely to have low levels of vitamin B12 and high levels of intrinsic factor
4. The patient is likely to have low levels of vitamin B12 and decreased secretion of intrinsic factor
5. The patient's symptoms will be explained on the basis of iron deficiency

Triad of symptoms: lesions of gastroenteric tract (glossitis, esophagitis, gastritis), nervous system (funicular myelosis), hemopoiesis system (hyperchromatic hyporegenerativ megaloblastic macrocytic anaemia, leukopenia, thrombocytopenia). This Clinical criteria of diagnosing of:

1. B12 deficiency anemia
2. Iron deficiency anemia
3. Anemia of pregnancy
4. Anemia of renal failure by insufficient erythropoietin production
5. Fanconi anemia

A 56 y.o. patient ill with cholecystectomy suddenly had an intense hemorrhage. She needs blood transfusion. Her blood group is AB(IV)Rh-. Hemotransfusion station doesn't dispose of this group. What group of donors can be involved?

1. Emergency donors
2. Relatives
3. Reserve donors
4. Donors of rare blood groups
5. Donors of active group

A 19 y.o. boy was admitted to the hospital with closed abdominal trauma. In course of operation multiple ruptures of spleen and small intestine were revealed. AP is falling rapidly, it is necessary to perform hemotransfusion. Who can determine the patient's blood group and rhesus compatibility?

1. An anaesthesiologist
2. A traumatologist
3. A surgeon
4. A doctor of any speciality
5. A laboratory physician

Medical examination of a 43 y.o. man revealed objectively pallor of skin and mucous membranes, smoothness of lingual papillae, transverse striation of nails, fissures in the mouth corners, tachycardia. Hemoglobin content amounts 90 g/l; there are anisocytosis, poikilocytosis. The most probable causative agent of this condition is deficiency of the following microelement:

1. Selenium
2. Iron
3. Copper
4. Magnesium
5. Zinc

A 33 y.o. patient was admitted to the hospital with stopped repeated ulcerative bleeding. He was pale and exhausted. Blood count: Hb- 77 g/l, Ht- 0,25. In view of anemia there were made two attempts of blood transfusion of the same group - A(II)Rh+. In both cases the transfusion had to be stopped because of development of anaphylactic reaction. What transfusion medium would be advisable in this case?

1. Erythrocytic mass (native)
2. Fresh citrate blood

3. Erythrocytic suspension
4. Washed erythrocytes
5. Erythrocytic mass poor in leukocytes and thrombocytes

A 60 y.o. patient complains of weakness, dizziness, heaviness in the upper part of abdomen, paresthesia of toes and fingers. Objectively: skin icteritiousness, tongue is crimson, smooth. Hepatomegaly. In blood: Hb- 90 g/l, erythrocytes — 2,3- 10¹²/l, reticulocytes - 0,2%; color index - 1,2, macrocytosis; Jolly's bodies, Cabot's ring bodies. What medication is the most appropriate for treatment?

1. Vitamin B12
2. Feroplex
3. Dyspherol
4. Prednisolone
5. Packed red blood cells

A normocytic anemia is defined as an anemia with an MCV (Mean corpuscular volume):

1. <80
2. 80-100
3. >100
4. >200
5. >2000

An alcoholic patient being treated for tuberculosis has an increase in serum iron and transferrin saturation. Match the clinical description with the most likely diagnosis.

1. Sideroblastic anemia
2. Thalassemia
3. Iron-deficiency anemia
4. Anemia of renal disease
5. Anemia of chronic disease

A 70-year-old Hispanic woman presents with weight loss, constipation, and heme-positive stools. She has a microcytic anemia with low serum iron and elevated iron-binding capacity. Match the clinical description with the most likely diagnosis.

1. Sideroblastic anemia
2. Thalassemia
3. Iron-deficiency anemia
4. Anemia of renal disease
5. Anemia of chronic disease

A 52-year-old African American diabetic requires hemodialysis for end-stage renal disease. She has hemoglobin - 90 g/l, hematocrit - 27, and normal red cell indices. The iron and iron-binding capacity are normal. Match the clinical description with the most likely diagnosis.

1. Sideroblastic anemia
2. Thalassemia
3. Iron-deficiency anemia

4. Anemia of renal disease
5. Anemia of chronic disease

A 28 year old woman had the second labour and born a girl with manifestations of anemia and progressing jaundice. The child's weight was 3 400 g, the length was 52 cm. The woman's blood group is B (III) Rh-, the father's blood group is A (III) Rh+, the child's blood group is B (III) Rh+. What is the cause of anemia?

1. Antigen A incompatibility
2. Rhesus incompatibility
3. Antigen AB incompatibility
4. Antigen B incompatibility
5. Intrauterine infection

A 25 y.o. woman complained of fatigue, loss and brittle nails. The examination revealed pallor of skin, Ps- 94/min, BP-110/70 mm Hg. On blood count: Hb- 90 g/L, RBC- $3,5 \cdot 10^{12}/L$, C.I.- 0,7; ESR- 20 mm/h. Serum iron level was 8,7 $\mu\text{mol}/l$. What treatment would you initiate?

1. Vitamin B12 intramuscularly
2. Ferrous sulfate orally
3. Blood transfusion
4. Iron dextrin injections
5. Packed RBCs transfusion

A 60 y.o. patient complains of weakness, dizziness, heaviness in the upper part of abdomen, paresthesia of toes and fingers. Objectively: skin icteritiousness, tongue is crimson, smooth. Hepatomegaly. In blood: Hb- 90 g/l, erythrocytes - $2,3 \cdot 10^{12}/l$, reticulocytes - 0,2%; color index - 1,2, macrocytosis; Jolly's bodies, Cabot's ring bodies. What medication is the most appropriate for treatment?

1. Vitamin B12
2. Feroplex
3. Prednisolone
4. Dyspherol
5. Packed red blood cells

Thalassemia are:

1. forms of inherited autosomal recessive blood disorders that originated in the North America
2. forms of inherited autosomal recessive blood disorders that originated in the Mediterranean region
3. forms of inherited autosomal dominant blood disorders that originated in the North America
4. forms of inherited autosomal dominant blood disorders that originated in the Mediterranean region
5. forms of occupational diseases

The term leukemoid reaction describes:

1. a rapid increase in the number of immature blood cells
2. an excessive build up of relatively mature, but still abnormal, white blood cells

3. a cancerous change takes place in a type of marrow cell that normally goes on to form lymphocytes
4. a cancerous change takes place in a type of marrow cell that normally goes on to form red blood cells
5. an elevated white blood cell count, or leukocytosis, that is a physiological response to stress or infection

Philadelphia chromosome (Philadelphia translocation) is a specific chromosomal abnormality that is associated with:

1. Acute myeloid dendritic cell leukemia
2. Juvenile myelomonocytic leukemia
3. Chronic myeloid leukemia
4. Chronic myelomonocytic leukemia
5. Chronic neutrophilic leukemia

A 51 y.o. female patient suffers from fatigue, 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?

1. Chronic myelogenous leukemia
2. Leukemoid reaction
3. Lymphogranulomatosis
4. Liver cirrhosis
5. Urolithiasis

Patient 65 years old complains about headache, dizziness, skin icterus. Objectively: skin with red-cyanotic color, splenomegaly. Blood count: RCC $8.5 \times 10^{12}/l$, Hb 210 g/l, CI 0.95, WCC $11.3 \times 10^9/l$, ESR 1mm/hr. your diagnosis?

1. Acute myeloid leukemia
2. Chronic myeloid leukemia
3. Hodgkin's disease
4. Myeloma disease
5. Erythremia (polycythemia vera)

A 75 year old female patient complains of fever, significant weight loss, bone and joint pain, bleeding gums. Examination revealed paleness, lymphadenopathy, hepato- and splenomegaly. CBC: WBC - $270 \cdot 10^9/l$ with 13% lymphocytes, 1% monocytes, 21% basophiles, 29% neutrophils, 9% blasts, 12% promyelocytes, 10% myelocytes, 3% metamyelocytes, 2 % eosinophils. ESR - 26 mm/h. Name the drug for treatment:

1. Myelosan
2. Cytosar
3. Vinblastine
4. Prednisolone
5. Blood transfusion

A 49 year old man complains of increasing fatigue and easy bruising of 4 weeks' duration. Physical findings included pale, scattered ecchymoses and petechiae and mild hepatosplenomegaly. In blood: RBC- $3,5 \cdot 10^{12}/l$; Hb- 68 g/L; HCT- 20%; PLT- $23 \cdot 10^9/L$, and WBC - $165 \cdot 10^9/l$ with 89% blasts, peroxidase stain was positive. What is the most probable diagnosis?

1. Acute leukemia
2. Chronic leukemia
3. Hemolytic anemia
4. Megaloblastic anemia
5. Thrombocytopenia

A 37 year old patient (male) complains about weakness, dizziness, haemorrhagic skin rash. She has been suffering from this for a month. Blood count: erythrocytes $1,0 \cdot 10^{12}/l$, Hb- 37 g/l, colour index - 0,9, leukocytes $1,2 \cdot 10^9/l$, thrombocytes $42 \cdot 10^9/l$. What diagnostic method will be the most effective?

1. Chest X-Ray
2. Sternal puncture
3. Liver biopsy
4. Spleen biopsy

5. Coagulogram

A 61 y.o. patient complains of weakness, heartbeat, nasal hemorrhages, cutaneous hemorrhages. His condition has been worsening progressively for a month. Objectively: grave condition, the extremities and body skin has spotted and petechial hemorrhages, lymph nodes are not palpable, Ps- 116/min, liver is +2 cm enlarged, spleen is not palpable. Blood has evident pancytopenia. What disease should you think about first of all?

1. Acute agranulocytosis
2. Hypoplastic anemia
3. Hemorrhagic vasculitis
4. Acute leukemia
5. Werlhof's disease

Please choose the correct causes of death in acute leukemia:

1. Antibody deficiency syndrome
2. Agranulocytosis
3. Hypergammaglobulinemia
4. Erythremia
5. Leukemoid reaction

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 crvstales in urine, erythrocyte- 2-3 in the fieldof vision. What is the preliminary diagnosis?

1. Chronic myeloid leukemia
2. Urolithiasis
3. Hepar cirrhosis

4. Leukemoid reaction
5. Lymphogranulomatosis

A 60-year-old asymptomatic man is found to have a leukocytosis when a routine CBC is obtained. Physical exam shows no abnormalities. The spleen is of normal size. Lab data includes: Hgb: 9 g/dL (normal 14 to 18) Leukocytes: 40,000/ μ L (normal 4,300 to 10,800) Peripheral blood smear shows a differential that includes 97% small lymphocytes. The most likely diagnosis is:

1. Acute monocytic leukemia
2. Chronic myelogenous leukemia
3. Chronic lymphocytic leukemia
4. Tuberculosis
5. Hairy cell leukemia

The patient with chronic lymphocytic leukemia will require chemotherapy:

1. If the white blood cell count rises
2. If lymphadenopathy develops
3. To control anemia or thrombocytopenia
4. Only when acute lymphocytic leukemia develops
5. In any case

Hairy cell leukemia is:

1. Leukemia of cells in hairs
2. Leukemia with production of myosin antibodies
3. An uncommon hematological malignancy characterized by an accumulation of abnormal neutrophils
4. An uncommon hematological malignancy characterized by an accumulation of abnormal T lymphocytes
5. An uncommon hematological malignancy characterized by an accumulation of abnormal B lymphocytes

A 27 y.o. patient has been having for almost a year fatigue, hyperhidrosis, heaviness in the left hypochondrium, especially after meals. Objectively: spleen and liver enlargement. In blood: erythrocytes - $3,2 \cdot 10^{12}/l$, Hb- 100 g/l, colour index - 0,87, leukocytes - $100 \cdot 10^9/l$, basophils - 7%, eosinophils - 5%, myelocytes - 15%, juveniles - 16%, stab neutrophils - 10%, segmentonuclear leukocytes -45%, lymphocytes - 2%, monocytes -0%, reticulocytes - 0,3%, thrombocytes - $400 \cdot 10^9/l$, ESR- 25 mm/h. What is the most probable diagnosis?

1. Erythremia
2. Chronic lymphoid leukemia
3. Cirrhosis of a liver
4. Acute leukemia
5. Chronic myeloid leukemia

A 18 year old patient complains about subfebrile temperature, enlargement of lymph nodes, nasal haemorrhages. Objectively: the patient's skin and mucous membranes are pale, palpation revealed enlarged painless lymph nodes; sternalgia; liver was enlarged by 1 cm, spleen - by 4 cm, painless. In blood: erythrocytes $1,7 \cdot 10^{12}/l$, Hb-74 g/l, leukocytes – $66 \cdot 10^9/l$, eosinophils - 1%, stab neutrophils - 2%, segmented neutrophils - 12%, lymphocytes - 83%, lymphoblasts - 2%, smudge cells; ESR- 60 mm/h. What is the most probable diagnosis?

1. Lymphogranulomatosis
2. Acute myeloid leukemia
3. Chronic lymphoid leukemia
4. Acute lymphoid leukemia
5. Chronic myeloid leukemia

A 54 y.o. woman complains of increasing fatigue and easy bruising of 3 weeks' duration. Physical findings included pale, scattered ecchymoses and petechiae and mild hepatosplenomegaly. In blood: RBC- $2,5 \cdot 10^{12}/l$; Hb- 73 g/L; HCT- 20%; PLT- $23 \cdot 10^9/L$, and WBC- $162 \cdot 10^9/l$ with 82% blasts, that contained Auric rods; peroxidase stain was positive. What is the most probable diagnosis?

1. Acute leukemia
2. Chronic leukemia
3. Hemolytic anemia

4. Megaloblastic anemia
5. Thrombocytopenia

Patient 65 years old complains about headache, dizziness, skin icterus. Objectively: skin with red-cyanotic color, splenomegaly. Blood count: RCC $8.5 \times 10^{12}/l$, Hb 210 g/l, CI 0.95, WCC $11.3 \times 10^9/l$, ESR 1mm/hr. your diagnosis?

1. Hodgkin's disease
2. Myeloma disease
3. Erythremia (polycythemia vera).
4. Acute myeloid leukemia
5. Chronic myeloid leukemia

Philadelphia chromosome (Philadelphia translocation) is a specific chromosomal abnormality that is associated with:

1. Acute myeloid dendritic cell leukemia
2. Chronic myelogenous leukemia
3. Juvenile myelomonocytic leukemia
4. Chronic myelomonocytic leukemia
5. Chronic neutrophilic leukemia

Philadelphia chromosome is the result of:

1. A reciprocal translocation between chromosome 9 and 22
2. A reciprocal translocation between chromosome 8 and 29
3. A reciprocal translocation between chromosome 2 and 22
4. A reciprocal translocation between chromosome 6 and 17
5. A reciprocal translocation between chromosome 9 and 29

A 32 -year-old welder complains of weakness and fever. His illness started as tonsillitis a month before. On exam, BT of 38.9°C , RR of 24/min, HR of 100/min, BP of 100/70 mm Hg, hemorrhages on the legs, enlargement of the lymph nodes. CBC shows Hb of 70 g/L, RBC of $2.2 \cdot 10^{12}/L$, WBC of $3.0 \cdot 10^9/L$ with 32% of

blasts, 1% of eosinophiles, 3% of bands, 36% of segments, 20% of lymphocytes, and 8% of monocytes, ESR of 47 mm/h. What is the cause of anemia?

1. Chronic hemolytic anemia
2. Vitamin B12 deficiency anemia
3. Aplastic anemia
4. Acute leukemia
5. Chronic lymphoid leukemia

Patient 55 years old complaints about headache, dizziness, skin icterus bleeding of gums. Objectively: skin with red-cyanotic color, splenomegaly. Blood count: RCC $7.5 \times 10^{12}/l$, Hb 206 g/l, CI 0.95, WCC $10.3 \times 10^9/l$, ESR 2mm/hr. your diagnosis?

1. Erythremia (polycythemia vera).
2. Myeloma disease
3. Acute myeloleukosis
4. Hodgkin's disease
5. Chronic myeloleukosis

Please choose the correct clinical variants of acute leukemia:

1. Hodgkin's disease
2. Acute carcinoma
3. Acute undifferentiated
4. Kahler's disease
5. Erythremia

Please choose the correct causes of death in acute leukemia:

1. Leukemoid reaction
2. Hypergammaglobulinemia
3. Agranulocytosis
4. Erythremia
5. Antibody deficiency syndrome

A 42 y.o. patient complains of weakness, heartbeat, nasal hemorrhages, cutaneous hemorrhages. His condition has been worsening progressively for a month. Objectively: grave condition, the extremities and body skin has spotted and petechial hemorrhages, lymph nodes are not palpable, Ps- 116/min, liver is +2 cm enlarged, spleen is not palpable. Blood has evident pancytopenia. What disease should you think about first of all?

1. Acute leukemia
2. Hypoplastic anemia
3. Werlhof's disease
4. Acute agranulocytosis
5. Hemorrhagic vasculitis.

A 27 year old welder complains of weakness. On exam, BT of 37,9⁰C, RR of 28/min, HR of 103/min, BP of 100/60 mm Hg, hemorrhages on the legs, enlargement of the lymph nodes. CBC shows Hb of 72g/l, RBC of $2,5 \cdot 10^{12}/l$, WBC of $3,1 \cdot 10^9/l$ with 35% blasts, 1% of eosinophiles, 3% of bands, 36% of segments, 20% of lymphocytes, and 8% of monocytes, ESR of 45 mm/h. What is the cause of anemia?

1. Vitamin B12 deficiency anemia
2. Acute leukemia
3. Chronic hemolytic anemia
4. Chronic lympholeukemia
5. Aplastic anemia

A 25 year old patient complains about weakness, dizziness, haemorrhagic skin rash. She has been suffering from this for a month. Blood count: erythrocytes $1,0 \cdot 10^{12}/l$, Hb- 37 g/l, colour index - 0,9, leukocytes $1,2 \cdot 10^9/l$, thrombocytes $42 \cdot 10^9/l$. What diagnostic method will be the most effective?

1. Abdominal ultrasound
2. Liver biopsy
3. Spleen biopsy
4. Coagulogram
5. Sternal puncture

A 60 year old man complains of fever, significant weight loss, bone and joint pain, bleeding gums. Examination revealed paleness, lymphadenopathy, hepato- and splenomegaly. CBC: WBC - $270 \cdot 10^9/l$ with 13% lymphocytes, 1% monocytes, 21% basophiles, 29% neutrophils, 9% blasts, 12% promyelocytes, 12% myelocytes, 2% metamyelocytes, 1 % eosinophils. ESR - 22 mm/h. Name the drug for treatment:

1. Cytosar
2. Prednisolone
3. Vinblastine
4. Blood transfusion
5. Myelosan

A 65 y.o. male patient suffers from fatigue, 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 crvstales in urine, erythrocyte- 2-3 in the fieldof vision. What is the preliminary diagnosis?

1. Lymphogranulomatosis
2. Chronic myeloid leukemia
3. Urolithiasis
4. Liver cirrhosis
5. Leukemoid reaction

A 50-year-old man is found to have a leukocytosis when a routine CBC is obtained. Physical exam shows no abnormalities. The spleen is of normal size. Lab data includes: Hgb: 100 g/L Leukocytes: 44,000/ μ L (normal 4,300 to 10,800) Peripheral blood smear shows a differential that includes 92% small lymphocytes. The most likely diagnosis is

1. Tuberculosis
2. Acute monocytic leukemia
3. Chronic myelogenous leukemia

4. Chronic lymphocytic leukemia
5. Lymphogranulomatosis

Hairy cell leukemia characterized by an accumulation of:

1. abnormal T lymphocytes
2. abnormal B lymphocytes
3. abnormal neutrophils
4. abnormal platelets
5. abnormal protein in hairs

Patient, 19 years old, during cytochemical investigation of sternal puncture, in which 40% of blasts cells was observed, gave negative reaction to peroxidase and black sudan and positive reaction to glygogen. Which chemical variant of acute leukemia in this case?

1. Myeloblasts
2. Lymphoblasts
3. Monoblasts
4. Promyelocytic
5. Non differentiated

Adult T-cell leukemia (ATL) is caused by:

1. Chemical carcinogens
2. Hereditary factor
3. Translocation between chromosome 9 and 22
4. Human T-lymphotropic virus (HTLV)
5. The cause of Adult T-cell leukemia (ATL) is unknown

Philadelphia chromosome is the result of:

1. A reciprocal translocation between chromosome 2 and 22

2. A reciprocal translocation between chromosome 6 and 17
3. A reciprocal translocation between chromosome 8 and 29
4. A reciprocal translocation between chromosome 9 and 22
5. A reciprocal translocation between chromosome 9 and 29

Hairy cell leukemia is:

1. An uncommon hematological malignancy characterized by an accumulation of abnormal T lymphocytes
2. An uncommon hematological malignancy characterized by an accumulation of abnormal B lymphocytes
3. An uncommon hematological malignancy characterized by an accumulation of abnormal neutrophils
4. Leukemia with production of myosin antibodies
5. Leukemia of cells in hairs

The standard of care for newly diagnosed patients with Chronic myelogenous leukemia is:

1. Imatinib (Gleevec)
2. Cytarabine (cytosine arabinoside)
3. Hydroxycarbamide (hydroxyurea)
4. Hydrea
5. Droxia

Male, 32 years old, complain of weakness, fever, pain in the throat. Sick since more than 2 weeks, disease is connected to angina. Objectives: T 38.9C, RR 24/min, Pulse 110beat/min, AP 100/65mmHg. Skin is pale, many petechiae on extremity, increase axillar lymph nodes. Blood: ery- $3.1 \times 10^{12}/L$, Hb 80g/L, leucocytes- $3.7 \times 10^9/l$, blasts 34%, stab 3%, segmented 34%, lymphocytes 19%, monocytes 10%, trombocytes $60 \times 10^9/L$, esr 24mm/hr. the most useful examination for proper diagnosis:

1. Coagulogram
2. Biopsy of lymph nodes
3. Trepanobiopsy
4. Cytogenic investigation
5. Cytochemical investigation

Patient complains of weakness, quick fatigue, sweating, dry cough during the whole year. Not long ago, he suffered from severe herpes infection. Increased in cervical lymph nodes, axillary lymph nodes, they are dense and painless. Blood analysis: leucocytes - $40 \times 10^9/L$, lymphocytes - 80%. What investigation should be performed primarily to diagnose?

1. Puncture for bone marrow examination
2. Biopsy of increased lymphatic nodes
3. Xray of the chest
4. Ultrasound examination of the lymphatic nodes and spleen
5. Immunogram

Neurological symptoms and renal failure in Multiple myeloma developed commonly due to:

1. Infiltration of internal organs by myeloid cells
2. Hypergammaglobulinemia
3. Hypogammaglobulinemia
4. Hypocalcemia
5. Hypercalcemia

Patient D., 33 y.o., has in the myelogram: Myeloblast– 4.3%, juvenile – 2.3%, stab – 10.3%, segmented – 36.3%, basophils- 1%, eosinophils: 0.3%, lymphocytes– 13.3%, monocytes-5%, erythroblastic basophils-0.3%, pronormocytes – 1.3%, normocytic basophils- 0.3, normocytic polychromatophilic – 4%, normocytic oxyphils- 3%, plasmatic cells-18.3% The note: the bone marrow

biopsy is poor with cellular elements. The erythroidal germ cells - 8.9%. Elements of megakaryocytes - absent. plasmatic cells-18.3%, pathologically changed.

What is the probable diagnosis?

1. Kahler's disease
2. Burkitt's lymphoma
3. Hodgkin's disease
4. Von Willebrand disease
5. Leukemoid reaction

Patient U., 56 y.o., complains of weakness, pain in bones, level of Hb 65 g/l, proteinuria 22g/l, level of albumin in serum 40 g/l.

What is the probable diagnosis?

1. Polycystosis of kidney
2. Chronic glomerulonephritis in stage of uremia
3. Secondary amyloidosis of kidney
4. Chronic pyelonephritis
5. Myeloma disease

The definitive diagnosis of multiple myeloma is best made by:

1. More than 10% plasma cells in bone marrow
2. Renal biopsy
3. 24-h urine protein
4. Rouleaux formation on blood smear
5. Erythrocyte sedimentation rate

The anemia found in multiple myeloma is usually:

1. Reversible sideroblastic
2. Microcytic and hypochromic
3. Normocytic and normochromic
4. Macrocytic and hyperchromic

5. Hemolytic

Patient L, 35 year-old, complains of weakness, itchiness, subfebrile, pain in the left and right subcostal, increase of lymph nodes. General Blood Analysis: neutrophils leucocytosis, lymphocytopenia, anemia, increase of ESR. Biopsy of lymph nodes: Polymorphic cell, Berezovsky-Shternberg cells. Your diagnosis?

1. Acute leucemia
2. Chronic lympholeucosis
3. Chronic myeloid leucemia
4. Lymphogranulomatosis
5. Myeloma disease

The anemia found in myeloma is usually:

1. Microcytic and hypochromic
2. Normocytic and normochromic
3. Macrocytic and hyperchromic
4. Megalocytic
5. Anemia is not typical for this disorder

A patient complains of fatigue and night sweats associated with itching for 2 months. On physical exam, there is diffuse nontender lymphadenopathy, including small supraclavicular, epitrochlear, and scalene nodes. A chest x-ray shows hilar lymphadenopathy. The next step in evaluation is:

1. Monospot test
2. Toxoplasmosis IgG
3. Serum angiotensin converting enzyme level
4. Excisional lymph node biopsy
5. Erythrocyte sedimentation rate

Multiple myeloma is:

1. Cancer of NK-lymphocytes
2. Cancer of T-lymphocytes
3. Cancer of bones
4. Cancer of plasma cells
5. Viral infection

Please make the conclusion for this Myelogram: Myeloblast– 2%, myelocytes– 4%, juvenile – 7%, stab – 8%, segmented – 7%, lymphocytes– 1%, normocytic polychromatophilic – 5%, normocytic oxyphils- 1%, plasmatic cells-65%. The note: the bone marrow biopsy is moderately rich with cellular elements. It is sharply decrease of granulocytic and red marrow. Acute decrease of granulocytic and erythroidal germ cells. The bone marrow contains 65% of all lineages of plasmatic cells. Found 2X,3X 4X nuclear containing plasmatic cells groups. Megakaryocytes lineage without any changes.

1. Plasmatic cells proliferation in Acute plasmoblastic leukemia
2. Plasmatic cells proliferation in Chronic plasmoblastic leukemia
3. Plasmatic cells proliferation in Multiple myeloma
4. Myeloblasts proliferation in Chronic myelogenous leukemia
5. This myelogram does not contain any pathological changes

The patient, 18-years-old was admitted to the hospital with complaints of headache, weakness, high temperature, pain in the throat. Objectively: enlargement of all groups of lymphatic nodules was revealed. The liver is enlarged by 3 cm, spleen - by 1 cm. In the blood - leukocytosis, atypical lymphocytes - 15%. What is the probable diagnosis?

1. Angina
2. Infectious mononucleosis
3. Acute lymphoid leucosis
4. Diphtheria
5. Adenoviral infection

A 70-year-old male complains of 2 months of low back pain and fatigue. He has developed fever with purulent sputum production. On physical exam, he has pain over several vertebrae and rales at the left base. Laboratory results are as follows: Hemoglobin: 7 g/dL MCV: 86 fL (normal 86 to 98) WBC: 12,000/ μ L BUN: 44 mg/dL Creatinine: 3.2 mg/dL Ca: 11.5 mg/dL Chest x-ray: LLL infiltrate Reticulocyte count: 1% The most likely diagnosis is:

1. Multiple myeloma
2. Lymphoma
3. Metastatic bronchogenic carcinoma
4. Primary hyperparathyroidism
5. Adenoviral infection

The definitive diagnosis of multiple myeloma is best made by:

1. 24-h urine protein
2. Greater than 10% plasma cells in bone marrow
3. Renal biopsy
4. Rouleaux formation on blood smear
5. CT scan of abdomen and pelvis

Renal insufficiency in myeloma patients may have developed in this patient secondary to:

1. Obstruction of collecting tubules by Bence-Jones protein
2. Hypercalcemia
3. Amyloid deposition
4. Plasma cell infiltration of the kidney
5. All of the above

A 34 year old patient complains of profuse sweating at night, skin itching, weight loss (9 kg within the last 3 months). Examination revealed malnutrition,

skin pallor. Palpation of neck and inguinal areas revealed dense elastic lymph nodes for about 1 cm in diameter, nonmobile, non-adhering to skin. What is the most probable diagnosis?

1. Lymphosarcoma
2. Chronic lymphadenitis
3. Burkitt's lymphoma
4. Cancer metastases
5. Lymphogranulomatosis

Kahler's disease is:

1. Mononucleosis
2. Cancer of bones
3. Cancer of B-lymphocytes
4. Cancer of T-lymphocytes
5. Cancer of plasma cells

The anemia found in multiple myeloma is usually:

1. Hemolytic
2. Reversible sideroblastic
3. Macrocytic and hyperchromic
4. Microcytic and hypochromic
5. Normocytic and normochromic

A patient complains of fatigue associated with itching for 3 months. There is diffuse nontender lymphadenopathy, including small supraclavicular, epitrochlear, and scalene nodes. A chest x-ray shows hilar lymphadenopathy. The next step in evaluation is:

1. Toxoplasmosis IgG
2. Serum angiotensin converting enzyme level
3. Excisional lymph node biopsy
4. Monospot test
5. 24-h urine protein

The patient is found on biopsy to have mixed-cellularity Hodgkin's lymphoma. Liver function tests are normal, and the spleen is nonpalpable. The next step in evaluation is:

1. Erythrocyte sedimentation rate
2. Staging laparotomy
3. Liver biopsy
4. CT scan of abdomen and pelvis
5. Renal biopsy

Patient L, 35 year-old, complains of weakness, itchiness, subfebrile, pain in the left and right subcostal, increase of lymph nodes. General Blood Analysis: neutrophils leucocytosis, lymphocytopenia, anemia, increase of ESR. Biopsy of lymph nodes: Polymorphic cell, Berezovsky-Shternberg cells. Your diagnosis?

1. Lymphogranulomatous
2. Chronic lympholeucosis
3. Chronic myeloid leucemia
4. Acute leucemia
5. Myeloma disease

Patient 50 yrs complains of weakness, pain in bones, level of Hb 65 g/l, proteinuria 22g/l, level of albumin in serum 40 g/l. diagnosis?

1. Myeloma disease.
2. Chronic glomerulonephritis in stage of uremia.
3. Secondary amyloidosis of kidney.
4. Chronic pyelonephritis.
5. Polycystosis of kidney

A patient complains of fatigue and night sweats associated with itching for 2 months. On physical exam, there is diffuse nontender lymphadenopathy, including small supraclavicular, epitrochlear, and scalene nodes. A chest x-ray shows hilar lymphadenopathy. The next step in evaluation is:

1. Excisional lymph node biopsy
2. Monospot test
3. Toxoplasmosis IgG
4. Serum angiotensin converting enzyme level
5. Erythrocyte sedimentation rate

The patient is found on biopsy to have mixed-cellularity Hodgkin's lymphoma. Liver function tests are normal, and the spleen is nonpalpable. The next step in evaluation is

1. CT scan of abdomen and pelvis
2. Liver biopsy
3. Staging laparotomy
4. Erythrocyte sedimentation rate
5. Serum angiotensin converting enzyme level

Stage III B Hodgkin's disease. Match the chemotherapeutic agent with the anticipated response.

1. Better than 50% chance that the lesion will be cured
2. Prolongation of survival
3. Palliation
4. Little or no response
5. Greater than 10% plasma cells in bone marrow

Multiple myeloma is:

1. Cancer of B-lymphocytes

2. Viral infection
3. Cancer of plasma cells
4. Cancer of T-lymphocytes
5. Cancer of bones

The anemia found in multiple myeloma is usually:

1. Macrocytic and hyperchromic
2. Microcytic and hypochromic
3. Normocytic and normochromic
4. Reversible sideroblastic
5. Hemolytic

A 63 year old patient complained about pain in the lumbar area. He underwent a course of physiological treatment on account of radiculitis but this led to no improvement of his condition. R-graphy of spinal column and pelvic bones revealed osteoporosis and serious normochromic anaemia, urine analysis revealed proteinuria. Whole blood protein made up 10,7 g/l. What disease should be suspected?

1. Acute radiculitis
2. Urolithiasis
3. Metastases in bones
4. Myelomatosis
5. Systemic osteoporosis

A 44 year old patient complains of profuse sweating, skin itching, weight loss (12 kg within the last 4 months). Examination revealed malnutrition, skin pallor. Palpation of neck and inguinal areas revealed dense elastic lymph nodes for about 1 cm in diameter, nonmobile, non-adhering to skin. What is the most probable diagnosis?

1. Lymphosarcoma
2. Chronic lymphadenitis
3. Burkitt's lymphoma
4. Cancer metastases
5. Lymphogranulomatosis

The definitive diagnosis of multiple myeloma is best made by:

1. 24-h urine protein
2. Renal biopsy
3. Rouleaux formation on blood smear
4. Greater than 10% plasma cells in bone marrow
5. Erythrocyte sedimentation rate

The anemia found in myeloma is usually:

1. Microcytic and hypochromic
2. Normocytic and normochromic
3. Macrocytic and hyperchromic
4. Megalocytic
5. Anemia is not typical for this disorder

A 39 year old man complains of profuse sweating at night, skin itching, weight loss (12 kg within the last 4 months). Examination revealed malnutrition, skin pallor. Palpation of neck and inguinal areas revealed dense elastic, painless lymph nodes for about 1 cm in diameter, nonmobile, non-adhering to skin. What is the most probable diagnosis?

1. Lymphogranulomatosis
2. Lymphosarcoma
3. Burkitt's lymphoma
4. Chronic lymphadenitis
5. Cancer metastases

Patient B., 52 y.o., has in the myelogram: Myeloblast– 2%, myelocytes– 4%, juvenile – 7%, stab – 8%, segmented – 7%, lymphocytes– 1%, normocytic polychromatophilic – 5%, normocytic oxyphils- 1%, plasmatic cells-65%. The note: the bone marrow biopsy is moderately rich with cellular elements. It is sharply decrease of granulocytic and red marrow. Acute decrease of granulocytic and erythroidal germ cells. The bone marrow contains 65% of all lineages of plasmatic cells. Found 2X,3X 4X nuclear containing plasmatic cells groups. Megakaryocytes lineage without any changes.

1. This myelogram does not contain any pathological changes
2. Plasmatic cells proliferation in Multiple myeloma
3. Plasmatic cells proliferation in Chronic plasmoblastic leukemia
4. Plasmatic cells proliferation in Acute plasmoblastic leukemia
5. Myeloblasts proliferation in Chronic myelogenous leukemia

A 65-y.o. female patient complains of attack of dyspnea, cardialgia, and palpitation. 3 months ago had large-focal myocardial infarction. On exam: acrocyanosis, neck vein distension, pulse 110/min, BP - 100/60 mm Hg, heart sounds are muffled, wheezing, cough with foamy pink sputum. What is the cause of the clinical picture?

- 1.Acute cor pulmonale
2. Increased secretion of catecholamines
- 3.Sodium and water retention
- 4.Acute left ventricular failure
- 5.Acute vascular failure

A 48-y.o. male patient with myocardial infarction suddenly lost consciousness, developed tonic contraction of skeletal muscles. On exam: the pupils are dilated; pulse on the carotid artery is not detectable. What should be done first of all?

- 1.Recording ECG
- 2.Electrical defibrillation
- 3.Intracardiac injection of adrenalin
- 4.Precardiac punch
- 5.Triple maneuver of Safar

A 58-y.o. male patient complains of pains in the chest. On exam: tachycardia 102/min. On ECG: pathologic Q wave and elevation of ST segment in I, aVL, QS y VI, V2, V3 leads. What is the most probable diagnosis?

1. Acute myocardial infarction of the anterior wall of the left ventricle
2. Exudative pericarditis
3. Aortic dissection
4. Prinzmetal angina
5. Pulmonary thromboembolism

A 58-y.o. male patient complains of retrosternal squeezing pains on walking up to 200 m. The pain lasts for 10 min. Last 2 weeks pains become more frequently, more severe and longer, occur at rest. What is the most probable diagnosis?

1. Stable angina pectoris III FC
2. Prinzmetal angina
3. Progressive angina pectoris
4. Small- focal myocardial infarction
5. Stable angina pectoris IV FC

A 65-y.o. male patient had attack of myocardial infarction a week ago. The condition worsens. On exam: dyspnea at rest, marked edema, and ascitis. Cardiac dullness area is extended. A paradoxical pulsation is determined laterally from the cardiac apical impulse. What is the most probable diagnosis?

1. Cardiosclerotic ventricular aneurysm
2. Acute pericarditis
3. Acute ventricular aneurysm
4. Dressler's syndrome
5. Cardiac tamponade

A 67-y.o. male patient with myocardial infarction on the 13th day complains of pains in the chest, dyspnea. On exam: t - 38.2°C, pulse - 112/min, BR - 26/min, small-bubble rales below

right scapula. In 2 days right-sided exudative pleurisy was diagnosed. CBC: Leu – $8.9 \times 10^9/L$, eos- 8 %. ESR- 24 mm/hr. What complication occurred?

1. Pneumonia
2. Cardiac asthma
3. Recurrent myocardial infarction
4. Dressler's syndrome
5. Pulmonary thromboembolism

A 54-y.o. male patient with myocardial infarction on the 3rd day complains of dull pains behind the breastbone, which decreases with bending forward. On exam: BP- 140/80 mm Hg, heart sounds are muffled. On ECG: atrial fibrillation, ventricular rate 110/min, pathologic Q wave and ST segment elevation in chest leads. What is the most probable diagnosis?

1. Dressler's syndrome
2. Aortic aneurysm dissection
3. Titze's syndrome
4. Acute pericarditis
5. Pulmonary thromboembolism

10. A 58-y.o. male patient with myocardial infarction suddenly lost consciousness. On exam: pulse on the carotid artery is not detectable. On ECG: ventricular fibrillation. What should be done first of all?

1. Defibrillation
2. Intracardiac injection of adrenalin
3. Vagal maneuvers
4. Transesophageal electrocardiostimulation
5. Intravenous injection of lidocaine

A 33 year old male patient was brought to Emergency Department with the signs of cardiovascular collapse: BP -60/30 mm Hg, Ps - 140 bpm, the skin is pale and moist, diuresis 20 ml/h, Hb - 80 g/l, red blood cell count - $2,5 \times 10^{12}/l$. The reduction of blood volume averages:

1. 20-25%

2. 10-15%
3. 15-20%
4. 30-40%
5. 25-30%

A 65-y.o. female patient complains of attack of dyspnea, cardialgia, and palpitation. 3 months ago had large-focal myocardial infarction. On exam: acrocyanosis, neck vein distension, pulse 110/min, BP - 100/60 mm Hg, heart sounds are muffled, wheezing, cough with foamy pink sputum. What is the cause of the clinical picture?

1. Acute cor pulmonale
2. Increased secretion of catecholamines
3. Sodium and water retention
4. Acute left ventricular failure
5. Acute vascular failure

A 48-y.o. male patient with myocardial infarction suddenly lost consciousness, developed tonic contraction of skeletal muscles. On exam: the pupils are dilated; pulse on the carotid artery is not detectable. What should be done first of all?

1. Intracardiac injection of adrenalin
2. Electrical defibrillation
3. Recording ECG
4. Precardiac punch
5. Triple maneuver of Safar

A 58-y.o. male patient complains of pains in the chest. On exam: tachycardia 102/min. On ECG: pathologic Q wave and elevation of ST segment in I, aVL, QS y VI, V2, V3 leads. What is the most probable diagnosis?

1. Acute myocardial infarction of the anterior wall of the left ventricle
2. Exudative pericarditis
3. Aortic dissection
4. Prinzmetal angina

5. Pulmonary thromboembolism

A 60-y.o. female patient complains of retrosternal squeezing pains on walking up to 200 m. The pain lasts for 10 min. What is the most probable diagnosis?

1. Progressive angina pectoris
2. Prinzmetal angina
3. Stable angina pectoris III FC
4. Small- focal myocardial infarction
5. Stable angina pectoris IV FC

A 55 year old patient felt suddenly sick in a hospital corridor, he was immediately examined by a doctor. Examination revealed that the patient's skin was pale, autonomous respiration was absent, pulse on carotid arteries couldn't be felt, pupils were mydriatic. What action should be taken at the beginning of cardiac resuscitation?

1. Defibrillation
2. Closed-chest cardiac massage
3. Precordial thump
4. Restoration of airway patency
5. Mouth-to-mouth ventilation

A 67-y.o. male patient with myocardial infarction on the 13th day complains of pains in the chest, dyspnea. On exam: t - 38.2°C, pulse - 112/min, BR - 26/min, small-bubble rales below right scapula. In 2 days right-sided exudative pleurisy was diagnosed. CBC: Leu – $8.9 \cdot 10^9/L$, eos- 8 %. ESR- 24 mm/hr. What complication occurred?

1. Cardiac asthma
2. Pneumonia
3. Recurrent myocardial infarction
4. Dressler's syndrome
5. Pulmonary thromboembolism

A 58-y.o. male patient complains of retrosternal squeezing pains on walking up to 200 m. The pain lasts for 10 min. Last 2 weeks pains become more frequently, more severe and longer, occur at rest. What is the most probable diagnosis?

1. Stable angina pectoris III FC
2. Prinzmetal angina
3. Progressive angina pectoris
4. Small- focal myocardial infarction
5. Stable angina pectoris IV FC

A 65-y.o. male patient had attack of myocardial infarction a week ago. The condition worsens. On exam: dyspnea at rest, marked edema, and ascitis. Cardiac dullness area is extended. A paradoxical pulsation is determined laterally from the cardiac apical impulse. What is the most probable diagnosis?

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3. Acute ventricular aneurysm
4. Dressler's syndrome
5. Cardiac tamponade

A 33 year old male patient was brought to Emergency Department with the signs of cardiovascular collapse: BP -60/30 mm Hg, Ps - 140 bpm, the skin is pale and moist, diuresis 20 ml/h, Hb - 80 g/l, red blood cell count - 2, 5 - 1012/1. The reduction of blood volume averages:

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2. 10-15%
3. 15-20%
4. 30-40%
5. 25-30%

A 67-y.o. male patient with myocardial infarction on the 13th day complains of pains in the chest, dyspnea. On exam: t - 38.2°C, pulse - 112/min, BR - 26/min, small-bubble rales below right scapula. In 2 days right-sided exudative pleurisy was diagnosed. CBC: Leu – 8.9 * 10⁹/L, eos- 8 %. ESR- 24 mm/hr. What complication occurred?

1. Cardiac asthma
2. Pneumonia
3. Recurrent myocardial infarction
4. Dressler's syndrome
5. Pulmonary thromboembolism

A 54-y.o. male patient with myocardial infarction on the 3rd day complains of dull pains behind the breastbone, which decreases with bending forward. On exam: BP- 140/80 mm Hg, heart sounds are muffled. On ECG: atrial fibrillation, ventricular rate 110/min, pathologic Q wave and ST segment elevation in chest leads. What is the most probable diagnosis?

1. Aortic aneurysm dissection
2. Dressler's syndrome
3. Titzel's syndrome
4. Acute pericarditis
5. Pulmonary thromboembolism

A 54-y.o. male patient complains of acute pain in the chest after heavy exertion. Pain is localized in the central part of the chest without radiation, increases with movements. History: hypertension, patient takes ACE inhibitors. On exam: pulse - 115/min, BR - 22/min. On ECG: sinus tachycardia. On chest X-ray: increase in the size of the main cardiac vessels shadows. What is the most probable diagnosis?

1. Hiatus hernia
2. Myocarditis
3. Aortic aneurysm dissection
4. Non-ST elevation acute myocardial infarction
5. Acute pericarditis

8. A 78-year-old male is admitted with acute myocardial infarction and congestive heart failure, then has an episode of ventricular tachycardia. She is prescribed multiple medications and soon develops confusion and slurred speech. The most likely cause of this confusion is

1. Lidocaine
2. Digoxin

3. Furosemide
4. Captopril
5. Nitroglycerin

A 54-y.o. male patient with myocardial infarction on the 3rd day complains of dull pains behind the breastbone, which decreases with bending forward. On exam: BP- 140/80 mm Hg, heart sounds are muffled. On ECG: atrial fibrillation, ventricular rate 110/min, pathologic Q wave and ST segment elevation in chest leads. What is the most probable diagnosis?

1. Dressler's syndrome
2. Aortic aneurysm dissection
3. Titze's syndrome
4. Acute pericarditis
5. Pulmonary thromboembolism

A 48-y.o. male patient with myocardial infarction suddenly lost consciousness, developed tonic contraction of skeletal muscles. On exam: the pupils are dilated; pulse on the carotid artery is not detectable. What should be done first of all?

1. Recording ECG
2. Electrical defibrillation
3. Intracardiac injection of adrenalin
4. Precardiac punch
5. Triple maneuver of Safar

A 45-y.o. female patient complains of attacks of headache, palpitation, tremor, sweating, feeling of fever, dramatic increase in BP (up to 240/130 mmHg), disturbances of menstrual cycle, weight loss 7 kg. On exam: HR-98/min, BP 150/90 mmHg, left cardiac border +1.5 cm. What is the most probable diagnosis?

1. Primary hyperaldosteronism
2. Hyperthyroidism
3. Pheochromocytoma
4. Pathologic menopause
5. Essential hypertension

A 52-y.o. female patient with primary hypertension after stress complains of headache, palpitation, pain in the heart, anxiety. On exam: HR- 110/min, BP 210/100 mmHg. Administer a drug of choice from the list below.

1. Verapamil i.v.

2. Papaverine i.v.
3. Enalaprilat i.v.
4. Metoprolol i.v.
5. Clonidine i.v.

ОТВЕТ: 1

An 18-y.o. male patient complains of headache, palpitation, pain in the heart. On exam: heart sounds are regular, II sound is increased in the 2nd intercostal space at right sternal border, HR-100/min, BP 210/130 mmHg. Abdominal bruit is heard in the left paraumbilical region. Urinalysis: protein - 0.033 g/L. What investigations should be done?

1. Renal angiography
2. Intravenous urography
3. Renal ultrasonography
4. Measurement of plasma renin activity
5. Needle renal biopsy

A 58-y.o. male patient with primary hypertension had myocardial infarction 1 year ago. Symptoms: headache, attacks of retrosternal pain, feeling of "irregular cardiac beats". On exam: HR-94/min, BP 180/90 mmHg. On ECG: supraventricular extrasystole, left ventricular hypertrophy, pathologic Q in V1-V3, PQ 0.16 sec. Administer a drug of choice from the list below.

1. Metoprolol
2. Prazosin
3. Furosemide
4. Nifedipine
5. Clonidine

A 65-y.o. male patient complains of dyspnea, cough with foam pink sputum, anxiety. On exam: orthopnea, acrocyanosis, small- and medium-bubble moist rales are heard in the lower posterior parts of the lungs, BR -40/min, heart sounds are muffled, S₃ is heard at the apex, HR-110/min, BP 190/110 mmHg. What is the most probable diagnosis?

1. Pulmonary edema
2. Dressler's syndrome
3. Infarction-pneumonia
4. Status asthmaticus
5. Pulmonary thromboembolism

A 39-y.o. male patient with primary hypertension suddenly felt intense headache, nausea, vomiting, which have been lasting for 5 hours. On exam: HR-88/min, BP 205/100 mmHg, pain on palpation of occipital points, rigidity of occipital muscles, Kernig's sign is positive on both sides. Subarachnoidal hemorrhage is suspected. What investigation is the most useful for diagnosis?

1. Lumbar puncture
2. Doppler ultrasonography
3. Electroencephalography
4. Eyefundoscopy
5. Computed tomography

A 38-y.o. female patient suffers from episodes of dramatic increases in BP up to 240/120 mmHg with symptoms of nausea, vomiting, sweating and tachycardia. Increased urination occurs after the episodes.

On renal sonography an abnormal formation on the upper pole of the left kidney is detected, which is possibly a part of an adrenal gland. What diagnostic laboratory test is indicated?

1. Measurement of plasma insulin and C-peptide
2. Measurement of metanephrines and vanillylmandelic acid in 24-h urine collection

3. Measurement of serum T₄ and TSH
4. Measurement of plasma renin activity
5. Measurement of glomerular filtration rate based on the clearance of endogenous

A 45-y.o. female patient with primary hypertension complains of headache, palpitation, and anxiety. On exam: HR-108/min, BP 215/100 mmHg. On ECG: sinus tachycardia, left ventricular hypertrophy. Administer a drug of choice from the list below.

1. Clonidine i.v.
2. Furosemide i.v.
3. Metoprolol i.v.
4. Enalaprilat i.v.
5. Magnesium sulfate i.v.

A 38-y.o. male patient who had acute glomerulonephritis 10 years ago complains of facial and leg edema, headache. On exam: HR-82/min, BP 215/120 mmHg. Urinalysis: protein – 9.9g/L, leuk - 3-4 in f.v., ery - 10-12 in f.v., hyaline casts - 3-4 in f.v. Serum creatinin - 102 mcmol/L. Administer a drug of choice from the list below.

1. Clonidine i.v.
2. Captopril
3. Prazosin
4. Metoprolol i.v.
5. Enalaprilat i.v.

A 70-y.o. male patient with primary hypertension felt weakness in left extremities in the morning, which worsened and the patient lost stability of voluntary movements. On exam: consciousness is present, meningeal signs are absent, left-sided hemiparesis, tendon reflexes are increased on the left side, HR- 74/min, BP 150/90 mmHg, t 36.5°C. What is the most probable diagnosis?

1. Acute encephalitis
2. Transient ischemic attack
3. Ischemic stroke
4. Hemorrhagic stroke
5. Cerebral edema

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 murmur 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?

1. β -blocker
2. α -blocker
3. Calcium channel antagonist
4. Thiazide diuretic
5. Inhibitor of angiotensin converting enzyme

A 42-year-old patient presents to the emergency room with a minor injury and is found to have a blood pressure of 155/95. The best approach to follow-up of this patient's blood pressure is

1. Full diagnostic evaluation immediately
2. Full diagnostic evaluation within 1 month
3. Recheck blood pressure in 2 years
4. Recheck blood pressure within 1 year and provide advice on lifestyle modifications

5. Confirm another high blood pressure reading within 2 months and provide advice on lifestyle modifications

Which of the following represents the currently recommended goal for blood pressure control in a diabetic?

1. Less than 160/90
2. Less than 145/95
3. Less than 140/90
4. Less than 120/70
5. Less than 130/85

The initial choice of an antihypertensive agent may depend on concomitant factors. Indicate the medication choice that would give the best additional benefit after blood pressure control for patients with prostatic hypertrophy with urinary retention

1. Beta blocker
2. Alpha blocker
3. Calcium channel blocker
4. Angiotensin converting enzyme inhibitor
5. Centrally acting agent

Indicate the medication choice that needs to be avoided at pregnancy, second and third trimester

1. Diuretic
2. Beta blocker, noncardioselective
3. Calcium channel blocker
4. Angiotensin converting enzyme inhibitor
5. Hydralazine

A 68-year-old woman who is living independently seeks advice about exercise programs. She has mild hypertension but is otherwise in good health with no other risk factors for cardiovascular disease. Which of the following statements is supported by current data?

1. Only high-intensity exercise has been shown to have long-standing benefits
2. Tai chi has become popular in the elderly but results in falls
3. This patient would require stress testing before beginning a walking program
4. Walking can reduce mortality from cardiovascular disease and help prevent falls

Match Terazosin associated side effect

1. Increased triglyceride levels
2. Volume retention
3. First-dose syncope
4. Cough
5. Gynecomastia

An 62-year-old female with hypertension but presents with new onset of mild left hemiparesis and the finding of atrial fibrillation on ECG, which persists throughout the hospital stay. She had been in sinus rhythm 6 months earlier. Optimal treatment by the time of hospital discharge includes antihypertensives plus

1. Close observation
2. Permanent pacemaker
3. Aspirin
4. Subcutaneous heparin

5. Warfarin (Coumadin)

A 42-year-old patient presents to the emergency room with a minor injury and is found to have a blood pressure of 175/95. The best approach to follow-up of this patient's blood pressure is

1. Full diagnostic evaluation immediately
2. Full diagnostic evaluation within 1 month
3. Recheck blood pressure in 2 years
4. Recheck blood pressure within 1 year and provide advice on lifestyle modifications
5. Confirm another high blood pressure reading within 2 months and provide advice on lifestyle modifications

A 65-year-old diabetic with a creatinine of 1.6 was started on an angiotensin converting enzyme inhibitor for hypertension and presents to the emergency room with weakness. His other medications include a statin for hypercholesterolemia, a beta blocker and spironolactone for congestive heart failure, insulin for diabetes, and aspirin. Laboratory examinations include: K: 7.2 meq/L Creatinine: 1.8 Glucose: 400 mg/dL CPK: 400 IU/L Which is the most important cause of hyperkalemia in this patient?

1. Worsening renal function
2. Uncontrolled diabetes
3. Statin-induced rhabdomyolysis
4. Drug-induced defects in the renin-angiotensin-aldosterone system

A 58-y.o. male patient with primary hypertension had myocardial infarction 1 year ago. Symptoms: headache, attacks of retrosternal pain, feeling of "irregular cardiac beats". On exam: HR - 94/min, BP 180/90 mm Hg. On ECG: supraventricular extrasystole, left ventricular hypertrophy, pathologic Q in V1-V3, PQ 0.16 sec. Administer a drug of choice from the list below.

1. Metoprolol
2. Prazosin
3. Furosemide
4. Nifedipine
5. Clonidine

A 65-y.o. male patient complains of dyspnea, cough with foamy pink sputum, anxiety. On exam: orthopnea, acrocyanosis, small- and medium-bubble moist rales are heard in the lower posterior parts of the lungs, BR - 40/min, heart sounds are muffled, S3 is heard at the apex, HR - 110/min, BP 190/110 mm Hg. What is the most probable diagnosis?

1. Dressler's syndrome
2. Pulmonary edema
3. Infarction-pneumonia
4. Pulmonary thromboembolism
5. Status asthmaticus

An 82-year-old female has been followed for hypertension but presents with new onset of mild left hemiparesis and the finding of atrial fibrillation on ECG, which persists throughout the hospital stay. She had been in sinus rhythm 6 months earlier. Optimal treatment by the time of hospital discharge includes antihypertensives plus

1. Close observation
2. Permanent pacemaker
3. Aspirin
4. Subcutaneous heparin
5. Warfarin (Coumadin)

A 38-y.o. female patient suffers from episodes of dramatic increases in BP up to 240/120 mm Hg with symptoms of nausea, vomiting, tachycardia, and sweating. Increased urination occurs after the episodes. On renal sonography an abnormal formation on the upper pole of the right kidney is detected, which is possibly a part of adrenal gland. What diagnostic laboratory test is indicated?

1. Measurement of glomerular filtration rate based on the clearance of endogenous creatinin
2. Measurement of plasma renin activity
3. Measurement of serum T4 and TSH
4. Measurement of metanephrines and vanillylmandelic acid in 24-h urine collection
5. Measurement of plasma insulin and C-peptide

A 44-y.o. male patient with primary hypertension complains of headache, palpitation, and anxiety. On exam: HR - 108/min, BP 215/100 mm Hg. On ECG: sinus tachycardia, left ventricular hypertrophy. Administer a drug of choice from the list below.

1. Clonidine i.v.
2. Furosemide i.v.
3. Metoprolol i.v.
4. Enalaprilat i.v.
5. Magnesium sulfate i.v.

A 58 year old female patient complains about periodical headache, dizziness and ear noise. She has been suffering from diabetes melitus for 15 years. Objectively: heart sounds are rhythmic, heart rate is 76/min, there is diastolic murmur 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?

1. β -blocker
2. α -blocker
3. Calcium channel antagonist
4. Thiazide diuretic
5. Inhibitor of angiotensin converting enzyme

A 70-y.o. male patient with primary hypertension felt weakness in left extremities in the morning, which worsened and the patient lost ability of voluntary movements. On exam: consciousness is present, meningeal signs are absent, left-sided hemiparesis, tendon reflexes are increased on the left side, HR - 74/min, BP 150/90 mm Hg, t 36.5°C. What is the most probable diagnosis?

1. Acute encephalitis
2. Transient ischemic attack
3. Ischemic stroke
4. Hemorrhagic stroke
5. Cerebral edema

A 47-y.o. male patient complains of dyspnea, discomfort in the heart, pain in the epigastrium, confusion, vomiting. On exam: neck vein distension, heart sounds are muffled, HR 170/min, BP - 90/50 mm Hg. On ECG: paroxysmal ventricular tachycardia. Administer a drug of choice from the list below.

1. Lidocaine
2. Nifedipine
3. Morphine
4. Enalapril
5. Strophantine

A 72-y.o.

male patient with myocardial infarction complains of palpitations and dyspnea on moderate physical exertion. On exam: irregular heart beats, HR - 96/min, heart sounds are muffled, systolic murmur at the apex. On ECG: P waves are absent, R-R intervals are highly variable, f waves (better seen in V1). What kind of arrhythmia should be diagnosed in this case?

1. Atrial fibrillation
2. Atrial extrasystole
3. Incomplete right His bundle branch block
4. Atrioventricular block III degree
5. Ventricular extrasystole

In what kind of arrhythmia from the list below i.v. injection of adenosine is used?

1. Atrial flutter
2. Ventricular fibrillation
3. Paroxysmal supraventricular tachycardia
4. Paroxysmal ventricular tachycardia
5. Paroxysmal atrial fibrillation

A 55-y.o. male patient complains of sudden attack of palpitation, nausea, confusion, fatigue. On ECG: tachycardia, HR - 220/min, QRS complexes are widened and deformed, P waves are absent. Administer a drug of choice from the list below.

1. Diazepam
2. Lidocaine
3. Procainamide
4. Verapamil
5. Strophantine

A 46-y.o. female patient complains of sudden attacks of palpitations, nausea, and anxiety.

Palpitations last for about 15-20 min, and disappear after stop of breath with straining of abdominal muscles. What kind of arrhythmia should be diagnosed in this case?

1. Atrial flutter
2. Paroxysmal supraventricular tachycardia
3. Paroxysm of frequent extrasystole
4. Paroxysmal atrial fibrillation
5. Paroxysmal ventricular tachycardia

A 70-y.o. male patient complains of fatigue, weakness, confusion, short syncope, and discomfort in the heart. On exam: heart sounds are regular, I sound is muffled, HR - 40/min, BP - 160/90 mm Hg. What is the most probable cause of hemodynamic disturbances?

1. Atrial fibrillation with ventricular bradycardia
2. Sinus bradycardia
3. Atrioventricular block II degree Mobitz I
4. Complete left His bundle branch block
5. Atrioventricular block III degree

A 69-y.o. male patient complains of short episodes of fainting. He had myocardial infarction 4 years ago. On exam: pulse 42/min. On ECG Holter monitoring: episodes of Atrioventricular block II degree Mobitz II (2:1 - 4:1), periods of asystole up to 3.5 sec. What kind of treatment is the most effective in this case?

1. Permanent treatment with beta-blockers

2. Permanent treatment with atropine
3. Implantation of artificial pacemaker
4. Short-term cardiometabolic treatment
5. Permanent treatment with verapamil

A 47-y.o. male patient complains of palpitation, which has been lasting for 10 min. On exam: heart borders are normal, HR - 200/min, BP - 135/75 mm Hg. On ECG: R-R intervals are regular, HR - 196/min, QRS - 0.09 sec. What kind of treatment should be done first of all?

1. No treatment, but close monitoring
2. Vagal maneuvers
3. Beta-blocker
4. Procainamide
5. Electrical cardioversion

A 76-y.o. male patient complains of severe dyspnea. On exam: orthopnea, acrocyanosis, marked edema in the legs, moist rales are heard in the lower parts of the lungs, heart sounds are muffled, irregular, the pulse is irregular, pulse rate - 72/min, HR - 125/min, BP - 100/70 mm Hg. What kind of medication should be added to ACE inhibitor and diuretics in this case?

1. Digoxin
2. Atenolol
3. Lidocaine
4. Propafenone
5. Procainamide

A 27-y.o. male patient had severe electric trauma with cardiac and respiration arrest. Cardiopulmonary resuscitation was effective in 5 min. What complication is possible in several hours or days?

1. Acute hepatic failure
2. Arrest of respiration
3. Arrest of circulation
4. Acute renal failure
5. Pulmonary edema

A 85-year-old woman has had several episodes of syncope, all of which have occurred while she was returning to her room after breakfast. She complains of light-headedness and states she feels cold and weak. She takes nitroglycerin in the morning for a history of chest pain, but denies recent chest pain or shortness of breath. The most likely method of diagnosis is

1. Cardiac catheterization
2. Holter monitoring
3. Postprandial blood pressure monitoring
4. CT scan

Adenosine triphosphate may be expected to convert which of the following arrhythmias to sinus rhythm?

1. Atrial flutter
2. Ventricular fibrillation
3. Atrial fibrillation
4. Paroxysmal supraventricular tachycardia
5. Paroxysmal ventricular tachycardia

A 55 year old patient felt suddenly sick in a hospital corridor, he was immediately examined by a doctor. Examination revealed that the patient's skin was pale, autonomous respiration was

absent, pulse on carotid arteries couldn't be felt, pupils were mydriatic. What action should be taken at the beginning of cardiac resuscitation?

1. Defibrillation
2. Closed-chest cardiac massage
3. Precordial thump
4. Restoration of airway patency
5. Mouth-to-mouth ventilation

Patient, 44 year-old, suffered from dilated cardiomyopathy, at night has sudden attack of severe palpitation. During investigation, patient's condition is of moderate severity, pale skin, acrocyanosis. BP- 80/60 mmHg. ECG: heart rate – 170/min. QRS complex widened and deformed (QRS = 0,13 s). There is disassociation in activities of atria and ventricles. What disturbance of heart rhythm can be found in this patient?

1. Fibrillation arrhythmia
2. Paroximal supraventricular tachycardia
3. Paroximal ventricular tachycardia
4. Paroximal tachycardia from atrial-ventricular connection
5. Partial ventricular extrasystole

A 78-year-old male is admitted with acute myocardial infarction and congestive heart failure, then has an episode of ventricular tachycardia. She is prescribed multiple medications and soon develops confusion and slurred speech. The most likely cause of this confusion is

1. Lidocaine
2. Digoxin
3. Furosemide
4. Captopril
5. Nitroglycerin

A 35-year-old male presents to the office with a history of palpitations that last for a few seconds and occur two or three times a week. There are no other symptoms. ECG shows a rare single unifocal premature ventricular contraction (PVC). The most likely cause of this finding is

1. Underlying coronary artery disease
2. Valvular heart disease
3. Idiopathic or unknown
4. Apathetic hyperthyroidism
5. Hypertension

Subsequent 24-h Holter monitoring in the preceding patient confirms occasional single unifocal PVCs plus occasional premature atrial contractions (PACs). The best antiarrhythmic management in this case is

1. Observation, no medication
2. Beta blocker therapy
3. Digoxin
4. Quinidine
5. Anxiolytics

An 82-year-old female has been followed for hypertension but presents with new onset of mild left hemiparesis and the finding of atrial fibrillation on ECG, which persists throughout the hospital stay. She had been in sinus rhythm 6 months earlier. Optimal treatment by the time of hospital discharge includes antihypertensives plus

1. Close observation
2. Permanent pacemaker
3. Aspirin

4. Subcutaneous heparin
5. Warfarin (Coumadin)

A 42-year-old female comes to the ER due to a sensation of fast heart rate, slight dizziness, and vague chest fullness. Blood pressure is 110/70. The following rhythm strip is obtained, which shows a narrow QRS complex without clearly discernable P waves, with a rate in the 160.

1. Atrial fibrillation
2. Atrial flutter
3. Ventricular tachycardia
4. Supraventricular tachycardia

A 62-year-old male develops a viral upper respiratory infection and begins taking an over-the-counter decongestant. Shortly thereafter he experiences palpitations and presents to the emergency room, where the following rhythm strip is obtained, demonstrating an atrial rate of 250 to 350/min; the electrocardiogram reveals a sawtooth baseline configuration due to the flutter waves. In the strip, every fourth atrial depolarization is conducted through the AV node, resulting in a ventricular rate of 75/min.

1. Normal sinus rhythm
2. Junctional rhythm
3. Paroxysmal atrial tachycardia with 2:1 atrioventricular block
4. Atrial flutter with 4:1 atrioventricular block
5. Complete heart block with 2:1 atrioventricular block

A 47-y.o. male patient complains of dyspnea, discomfort in the heart, pain in the epigastrium, confusion, vomiting. On exam: neck vein distension, heart sounds are muffled, HR 170/min, BP - 90/50 mm Hg. On ECG: paroxysmal ventricular tachycardia. Administer a drug of choice from the list below.

1. Lidocaine
2. Nifedipine
3. Morphine
4. Enalapril
5. Strophantine

A 72-y.o.

male patient with myocardial infarction complains of palpitations and dyspnea on moderate physical exertion. On exam: irregular heart beats, HR - 96/min, heart sounds are muffled, systolic murmur at the apex. On ECG: P waves are absent, R-R intervals are highly variable, f waves (better seen in V1). What kind of arrhythmia should be diagnosed in this case?

1. Atrial fibrillation
2. Atrial extrasystole
3. Incomplete right His bundle branch block
4. Atrioventricular block III degree
5. Ventricular extrasystole

In what kind of arrhythmia from the list below i.v. injection of adenosine is used?

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2. Ventricular fibrillation
3. Paroxysmal supraventricular tachycardia
4. Paroxysmal ventricular tachycardia
5. Paroxysmal atrial fibrillation

A 55-y.o. male patient complains of sudden attack of palpitation, nausea, confusion, fatigue. On ECG: tachycardia, HR - 220/min, QRS complexes are widened and deformed, P waves are absent. Administer a drug of choice from the list below.

1. Diazepam
2. Lidocaine
3. Procainamide
4. Verapamil
5. Strophantine

A 46-y.o. female patient complains of sudden attacks of palpitations, nausea, and anxiety. Palpitations last for about 15-20 min, and disappear after stop of breath with straining of abdominal muscles. What kind of arrhythmia should be diagnosed in this case?

1. Atrial flutter
2. Paroxysmal supraventricular tachycardia
3. Paroxysmal frequent extrasystole
4. Paroxysmal atrial fibrillation
5. Paroxysmal ventricular tachycardia

A 35-year-old male presents to the office with a history of palpitations that last for a few seconds and occur two or three times a week. There are no other symptoms. ECG shows a rare single unifocal premature ventricular contraction (PVC). The most likely cause of this finding is

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1. Normal sinus rhythm
2. Junctional rhythm
3. Paroxysmal atrial tachycardia with 2:1 atrioventricular block
4. Complete heart block with 2:1 atrioventricular block
5. Atrial flutter with 4:1 atrioventricular block

52-year-old patient with disseminated pulmonary tuberculosis came to the hospital with complains 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?

1. Spontaneous pneumothorax
2. Cardiac failure
3. Pulmonary failure
4. Pleuritis
5. Acute myocardial infarction

A 52-y.o. female patient with primary hypertension after stress complains of headache, palpitation, pain in the heart, anxiety. On exam: HR- 110/min, BP 210/100 mmHg. Administer a drug of choice from the list below.

1. Verapamil i.v.
2. Papaverine i.v.
3. Enalaprilat i.v.
4. Metoprolol i.v.
5. Clonidine i.v.

A 58-y.o. male patient with primary hypertension had myocardial infarction 1 year ago. Symptoms: headache, attacks of retrosternal pain, feeling of "irregular cardiac beats". On exam: HR-94/min, BP 180/90 mmHg. On ECG: supraventricular extrasystole, left ventricular hypertrophy, pathologic Q in V1-V3, PQ 0.16 sec. Administer a drug of choice from the list below.

1. Metoprolol;
2. Prazosin;
3. Furosemide;
4. Nifedipine;
5. Clonidine

A 58-y.o. male patient had myocardial infarction 4 hours ago. On ECG: paroxysmal ventricular tachycardia. Administer a drug of choice from the list below.

1. Flecainid;
2. Verapamil ;
3. Propafenone;
4. Lidocaine;
5. Amiodarone;

A 65-y.o. female patient complains of attack of dyspnea, cardialgia, and palpitation. 3 months ago had large-focal myocardial infarction. On exam: acrocyanosis, neck vein distension, pulse 110/min, BP - 100/60 mm Hg, heart sounds are muffled, wheezing, cough with foamy pink sputum. What is the cause of the clinical picture?

1. Acute cor pulmonale;
2. Increased secretion of catecholamines;
3. Sodium and water retention;
4. Acute left ventricular failure;
5. Acute vascular failure;

A 48-y.o. male patient with myocardial infarction suddenly lost consciousness, developed tonic contraction of skeletal muscles. On exam: the pupils are dilated; pulse on the carotid artery is not detectable. What should be done first of all?

1. Recording ECG;
2. Electrical defibrillation;
3. Intracardiac injection of adrenalin;
4. Precardiac punch;
5. Triple maneuver of Safar;

A 58-y.o. male patient complains of pains in the chest. On exam: tachycardia 102/min. On ECG: pathologic Q wave and elevation of ST segment in I, aVL, QS y VI, V2, V3 leads. What is the most probable diagnosis?

1. Acute myocardial infarction of the anterior wall of the left ventricle;
2. Exudative pericarditis;
3. Aortic dissection;
4. Prinzmetal angina;
5. Pulmonary thromboembolism;

A 58-y.o. male patient complains of retrosternal squeezing pain on walking up to 200 m. The pain lasts for 10 min. Last 2 weeks pains become more frequently, more severe and longer, occur at rest. What is the most probable diagnosis?

1. CAD. Stable angina pectoris III FC
2. Prinzmetal angina
3. CAD. Progressive angina pectoris
4. CAD. Small-focal myocardial infarction
5. CAD. Stable angina pectoris IV FC

A 47-y.o. male patient complains of dyspnea, discomfort in the heart, pain in the epigastrium, confusion, vomiting. On exam: neck vein distension, heart sounds are muffled, HR 170/min, BP - 90/50 mm Hg. On ECG: paroxysmal ventricular tachycardia. Administer a drug of choice from the list below.

1. Lidocaine;
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3. Morphine;
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5. Strophantine

A 72-y.o. male patient with myocardial infarction complains of palpitations and dyspnea on moderate physical exertion. On exam: irregular heart beats, HR - 96/min, heart sounds are muffled, systolic murmur at the apex. On ECG: P waves are absent, R-R intervals are highly variable, f waves (better seen in V1). What kind of arrhythmia should be diagnosed in this case?

1. Atrial fibrillation
2. Atrialextrasystole
3. Incomplete right His bundle branch block
4. Atrioventricular block III degree
5. Ventricular extrasystole

In what kind of arrhythmia from the list below i.v. injection of adenosine is used?

1. Atrial flutter;
2. Ventricular fibrillation;
3. Paroxysmal supraventricular tachycardia
4. Paroxysmal ventricular tachycardia;
5. Paroxysmal atrial fibrillation;

A 65-y.o. male patient complains of dyspnea, cough with foam pink sputum, anxiety. On exam: orthopnea, acrocyanosis, small- and medium-bubble moist rales are heard in the lower posterior parts of the lungs, BR – 40/min, heart sounds are muffled, S₃ is heard at the apex, HR-110/min, BP 190/110 mmHg. What is the most probable diagnosis?

1. Dressler's syndrome;
2. Pulmonary edema ;
3. Infarction-pneumonia;
4. Pulmonary thromboembolism;
5. Status asthmaticus

A 44-y.o. male patient with primary hypertension complains of headache, palpitation, and anxiety. On exam: HR-108/min, BP 215/100 mmHg. On ECG: sinus tachycardia, left ventricular hypertrophy. Administer a drug of choice from the list below.

1. Clonidine i.v;
2. Furosemide i.v;
3. Metoprolol i.v;
4. Enalaprilat i.v;
5. Magnesium sulfate i.v;

A 65-y.o. male patient had an attack of myocardial infarction a week ago. The condition worsens. On exam: dyspnea at rest, marked edema, and ascitis. Cardiac dullness area is extended. A paradoxical pulsation is determined laterally from the cardiac apical impulse. What is the most probable diagnosis?

1. Cardiosclerotic ventricular aneurysm;
2. Acute pericarditis;
3. Acute ventricular aneurysm;
4. Dressler's syndrome;
5. Cardiac tamponade

A 67-y.o. male patient with myocardial infarction on the 13th day complains of pains in the chest, dyspnea. On exam: t - 38.2°C, pulse - 112/min, BR - 26/min, small-bubble rales below right scapula. In 2 days right-sided exudative pleurisy was diagnosed. CBC: Leu – $8.9 \times 10^9/L$, eos- 8%. ESR- 24 mm/hr. What complication occurred?

1. Cardiac asthma;
2. Pneumonia ;
3. Recurrent myocardial infarction;
4. Dressler's syndrome;
5. Pulmonary thromboembolism

A 54-y.o. male patient complains of acute pain in the chest after heavy exertion. Pain is localized in the central part of the chest without radiation, increases with movements. History: hypertension, patient takes ACE inhibitors. On exam: pulse - 115/min, BR - 22/min. On ECG: sinus tachycardia. On chest X-ray: increase in the size of the main cardiac vessels shadows. What is the most probable diagnosis?

1. Hiatus hernia;
2. Myocarditis;
3. Aortic aneurysm dissection;
4. Non-ST elevation acute myocardial infarction;
5. Acute pericarditis;

A 54-y.o. male patient with myocardial infarction on the 3rd day complains of dull pains behind the breastbone, which decreases with bending forward. On exam: BP - 140/80 mm Hg, heart sounds are muffled. On ECG: atrial fibrillation, ventricular rate 110/min, pathologic Q wave and ST segment elevation in chest leads. What is the most probable diagnosis?

1. Dressler's syndrome;
2. Aortic aneurysm dissection;
3. Titz's syndrome;
4. Acute pericarditis;
5. Pulmonary thromboembolism;

A 58-y.o. male patient with myocardial infarction suddenly lost consciousness. On exam: pulse on the carotid artery is not detectable. On ECG: ventricular fibrillation. What should be done first of all?

1. Electric impulse therapy;
2. Intracardiac injection of adrenalin;
3. Vagal maneuvers;
4. Transesophageal electrocardiostimulation;
5. Intravenous injection of lidocaine;

A 55-y.o. male patient complains of sudden attack of palpitation, nausea, confusion, fatigue. On ECG: tachycardia, HR - 220/min, QRS complexes are widened and deformed, P waves are absent. Administer a drug of choice from the list below.

1. Diazepam;
2. Lidocaine;
3. Procainamide;
4. Verapamil;
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A 46-y.o. female patient complains of sudden attacks of palpitations, nausea, and anxiety. Palpitations last for about 15-20 min, and disappear after stop of breath with straining of abdominal muscles. What kind of arrhythmia should be diagnosed in this case?

1. Atrial flutter;
2. Paroxysmal supraventricular tachycardia;
3. Paroxysm of frequent extrasystole;
4. Paroxysmal atrial fibrillation;
5. Paroxysmal ventricular tachycardia

A 70-y.o. male patient complains of fatigue, weakness, confusion, short syncope, and discomfort in the heart. On exam: heart sounds are regular, I sound is muffled, HR - 40/min, BP - 160/90 mm Hg. What is the most probable cause of hemodynamic disturbances?

1. Atrial fibrillation with ventricular bradycardia;

2. Sinus bradycardia;
3. Atrioventricular block II degree Mobitz I
4. Complete left His bundle branch block ;
5. Atrioventricular block III degree.

A 70-y.o. male patient with primary hypertension felt weakness in left extremities in the morning, which worsened and the patient lost stability of voluntary movements. On exam: consciousness is present, meningeal signs are absent, left-sided hemiparesis, tendon reflexes are increased on the left side, HR- 74/min, BP 150/90 mmHg, t 36.5°C. What is the most probable diagnosis?

1. Acute encephalitis;
2. Transient ischemic attack;
3. Ischemic stroke;
4. Hemorrhagic stroke;
5. Cerebral edema

A 55 year old patient felt suddenly sick in a hospital corridor, he was immediately examined by a doctor. Examination revealed that the patient's skin was pale, autonomous respiration was absent, pulse on carotid arteries couldn't be felt, pupils were mydriatic. What action should be taken at the beginning of cardiac resuscitation?

1. Defibrillation;
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4. Restoration of airway patency;
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A 78-year-old male is admitted with acute myocardial infarction and congestive heart failure, then has an episode of ventricular tachycardia. She is prescribed multiple medications and soon develops confusion and slurred speech. The most likely cause of this confusion is

1. Lidocaine
2. Digoxin
3. Furosemide
4. Captopril
5. Nitroglycerin

A 69-y.o. male patient complains of short episodes of fainting. He had myocardial infarction 4 years ago. On exam: pulse 42/min. On ECG Holter monitoring: episodes of Atrioventricular block II degree Mobitz II (2:1- 4:1), periods of asystole up to 3.5 sec. What kind of treatment is the most effective in this case?

1. Permanent treatment with beta-blockers;
2. Permanent treatment with atropine;
3. Implantation of artificial pacemaker;
4. Short-term cardiometabolic treatment ;
5. Permanent treatment with verapamil;

A 47-y.o. male patient complains of palpitation, which has been lasting for 10 min. On exam: heart borders are normal, HR- 200/min, BP - 135/75 mm Hg. On ECG: R-R intervals are regular, HR - 196/min, QRS- 0.09 sec. What kind of treatment should be done first of all?

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4. Paroxysmal tachycardia from atrial-ventricular connection;
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A 52-y.o. female patient with primary hypertension after stress complains of headache, palpitation, pain in the heart, anxiety. On exam: HR- 110/min, BP 210/100 mmHg. Administer a drug of choice from the list below.

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2. Papaverine i.v.
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3. Metoprolol i.v.;
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A 70-y.o. male patient with primary hypertension felt weakness in left extremities in the morning, which worsened and the patient lost stability of voluntary movements. On exam: consciousness is present, meningeal signs are absent, left-sided hemiparesis, tendon reflexes are increased on the left side, HR-74/min, BP 150/90 mmHg, t 36.5°C. What is the most probable diagnosis?

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A 58-y.o. male patient had myocardial infarction 4 hours ago. On ECG: paroxysmal ventricular tachycardia. Administer a drug of choice from the list below.

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1. Normal sinus rhythm
2. Junctional rhythm
3. Paroxysmal atrial tachycardia with 2:1 atrioventricular block
4. Atrial flutter with 4:1 atrioventricular block;
5. Complete heart block with 2:1 atrioventricular block;

A 35 y.o. male patient suffers from chronic glomerulonephritis and has been on hemodialysis 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?

1. Hyperkalemia

2. Hyperhydratation
3. Hypokaliemia
4. Hypocalcemia
5. Hypernatremia

A 25-year-old woman has been suffering from diabetes mellitus since she was 9. She was admitted into the nephrology unit with significant edemas of the face, arms, and legs. Blood pressure - 200/110 mm Hg, Hb- 90 g/L, blood creatinine - 850 $\mu\text{mol/L}$, urine proteins - 1.0 g/L, leukocytes - 10-15 in the vision field. Glomerular filtration rate - 10 mL/min. What tactics should the doctor choose?

1. Active conservative therapy for diabetic nephropathy
2. Transfer into the hemodialysis unit
3. Dietotherapy
4. Transfer into the endocrinology clinic
5. Renal transplantation

A 23-year-old man complains of facial edemas, headache, dizziness, low urinary output, and urine discoloration (dark red). These complaints arose after a case of acute tonsillitis. On examination there are facial edemas, the skin is pale, temperature is 37.4°C ; heart rate is 86/min., blood pressure is 170/110 mm Hg. Heart sounds are muffled, the II heart sound is accentuated over the aort1. What etiological factor is the most likely in this case?

1. Staphylococcus saprophyticus
2. Staphylococcus aureus
3. Streptococcus viridans
4. Streptococcus pyogenes
5. Beta-hemolytic streptococcus

After overexposure to cold a 45- year-old woman developed acute pain in her suprapubic and lumbar areas during urination, sharp pains at the end of urination, false urges to urinate. Urine is turbid with blood streaks. The doctor suspects urinary tract infection. What results of laboratory analysis would be the most indicative of such infection?

1. Leukocyturia, gross hematuria
2. Gross hematuria
3. Increased blood creatinine and blood urea
4. Daily proteinuria under 3.0
5. Daily proteinuria over 3.0

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

1. Acute renal failure
2. Hyperglycemic coma
3. Uremic coma
4. Acute disturbance of cerebral circulation
5. Hyperosmolar coma

A man was brought into the admission room after an overexposure to cold. He complains of sharp pain in the small of his back and elevated body temperature up to 38°C . He took some aspirin. Blood test: leukocytes - $10.5 \cdot 10^{12}/\text{L}$, eosinophils - 5%, band neutrophils - 8%,

segmented neutrophils - 51%, lymphocytes - 32%, monocytes - 4%, erythrocyte sedimentation rate - 28 mm/hour. Urinalysis: protein - 0.6 g/L, leukocytes - cover the whole vision field, large amount of mucus. What is the most likely diagnosis?

1. Tubulointerstitial nephritis
2. Chronic pyelonephritis
3. Acute glomerulonephritis
4. Acute pyelonephritis
5. Subacute malignant glomerulonephritis

You are designing a dialysis unit with dietitians, nurses, and pharmacologists to provide the best possible care. Patients suffering from which of the following conditions will make up your largest population?

1. Chronic glomerulonephritis
2. Hypertension
3. Diabetes mellitus
4. Obstructive uropathy

A diabetic male presents with hypertension and 24-h urine showing 200 mg of albumin. In a diabetic patient with microalbuminuria, the appropriate drug for treatment of hypertension to prevent progression of renal failure is

1. Beta blocker
2. Thiazide diuretic
3. Angiotensin converting enzyme inhibitor
4. Short-acting dihydropyridine calcium channel blocker for precise control (nifedipine)

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

1. Glomerulosclerosis
2. Acute suprarenal insufficiency
3. Chronic renal insufficiency
4. Antibiotic combination is optimal and absolutely safe
5. Acute renal insufficiency

Your patient, a 46-year-old man, complaints of rapid fatiqability, intermittent headache, asthenia. On examination edema of both shins, his pulse rate is 88 bpm and BP 140/80 mm Hg. Blood tests shows creatinine 0.3 mmmol/l, urea 9.0 mmol/l, GFR 50 ml/min. What is your diagnosis?

1. Chronic Renal Insufficiency 1 range
2. Chronic Renal Insufficiency 2 range
3. Chronic Renal Insufficiency 3 range
4. Chronic Cardiac Insufficiency 2b range
5. Chronic Cardiac Insufficiency 3 range

A 48 y.o. male patient has been hospitalized with diagnosis: chronic glomerulonephritis, nephrotic syndrome, hypertensive stage. Objectively: edemas of face, extremities, whole bodies. Hydrothorax, ascitis. What pathogenetic drugs should be administered at the first?

1. Corticosteroids
2. Antibiotics
3. Antiaggregants
4. Desensitizing drugs
5. Diuretics

A 54 y.o. woman has been ill with osteomyelitis of femoral bone for over 20 years. During the last month there appeared and have been steadily increasing edemata of lower extremities. Urine analysis revealed: proteinuria - 6,6 g/1. Blood analysis: disproteinemia in form of hypoalbuminemia, raise of α_2 and γ -globulines, ESR- 50 mm/h. What is the most probable diagnosis?

1. Chronic glomerulonephritis
2. Acute glomerulonephritis
3. Myelomatosis
4. Secondary renal amyloidosis
5. Systematic lupus erythematosus

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?

1. Proteins
2. Carbohydrates
3. Salt
4. Liquid
5. Fats

7 y.o. boy has been treated in a hospital for a month. At the time of admission he had evident edemata, proteinuria - 7,1 g/L, protein content in the daily urine - 4,2 g. Biochemical blood analysis reveals permanent hypoproteinemia (43,2 g/L), hypercholesterolemia (9,2 mmol/L). What variant of glomerulonephritis is the most probable?

1. Isolated urinary
2. Nephritic
3. Hematuric
4. Mixed
5. Nephrotic

Patient with chronic glomerulonephritis complaints of headache, dyspnea and pain in heart area. Inspection revealed that blood pressure - 190/110, glomerular filtration - 60 ml/min, creatinine - 0,177 mmole/l, potassium - 4,7 mmole/l, cholesterol - 8,6 mmole/l. What antihypertensive treatment do you recommend?

1. Clonidine
2. Nifedipine
3. hydrochlorothiazide
4. Atenolol
5. Enalapril

In Chronic renal failure all are seen except

1. Hyperphosphatemia
2. Hyponatremia
3. Hypomagnesemia
4. Metabolic acidosis

A 40-year-old man complains of headache in occipital area. On physical examination, the skin is pale; there is face and hand edema, BP 170/130 mmHg. On EchoCG, there was concentric hypertrophy of the left ventricle. Ultrasound examination of the kidneys reveals thinned cortical layer. Urinalysis shows proteinuria of 3,5 g/day. What is the diagnosis?

1. Chronic pyelonephritis

2. Chronic glomerulonephritis
3. Cushing's disease
4. Polycystic disease of the kidneys
5. Essential arterial hypertension

Patient complains of legs and face edema, headache, low back pain. He had acute glomerulonephritis 10 years ago. Physical examination: blood pressure is 220/130 mm Hg. Analysis of urine: protein - 3,9 g/l, leucocytes - 3-4 in field of view, erythrocytes - 10-12 in field of view, casts- 4-5 in field of view. What syndromes do you think presence here?

1. Nephritic, nephrotic, hypertensive
2. Nephritic, nephrotic
3. Nephrotic, hypertensive
4. Nephrotic, hypertensive, chronic renal failure
5. Hypertensive, chronic renal failure

Patient complains of low back pain, periodic subfebrile temperature and headache. The first attack of low back pain and temperature were registered 10 years ago. Increased blood pressure (200/110 mm Hg) was registered five years ago. General urine analysis: specific gravity - 1009, protein - 0,99 g/l, leukocytes - 10-15 in field of vision, erythrocytes - 2-3 in field of vision, hyaline casts - 1-2 in field of vision. Blood analysis: creatinine - 102 micromole/l. Determine initial diagnosis.

1. Tuberculosis of kidneys
2. Chronic glomerulonephritis
3. Chronic pyelonephritis
4. Amyloidosis
5. Essential hypertension

Patient complains of intensive headache, low back pain, edema under eyes and legs, weakness. He had tonsillitis one month ago. Physical examination: pale of skin, edema of face and legs, blood pressure - 180/110 mm Hg. Urine analysis: specific gravity - 1025, protein - 3,2 g/l, erythrocytes - 10-15 in field vision, leukocytes - 3-5 in field vision, casts hyaline - 1-3 in field vision. Diurnal urine exertion is 400 ml. Put the preliminary diagnosis.

1. Exacerbation of chronic pyelonephritis
2. Exacerbation of chronic glomerulonephritis
3. Acute pyelonephritis
4. Acute glomerulonephritis
5. Chronic renal failure

The patient complains of headache, increased arterial pressure, edema of legs and face. He has been ill for 10 years. Hypertention was revealed 5 years ago. Physical examination: blood pressure is 200/130 mm Hg, heart sounds are rhythmical, subdued, with accent second sound above aorta. Urine analysis: protein - 2,2 g/l, leukocytes - 3-5 in field vision, erythrocytes - 10-14 in field vision, hyaline and granular casts - 6-8 in field vision. Blood analysis: creatinine - 0,07 mmole/l. What is your diagnostic opinion?

1. Exacerbation of chronic glomerulonephritis
2. Exacerbation of chronic pyelonephritis
3. Amyloidosis
4. Urolithiasis
5. Essential hypertension

Specific gravity of urine within day varies from 1002 to 1010. What's the name of this symptom?

1. Hypersthenuria
2. Hyposthenuria
3. Isosthenuria
4. Pollakiuria
5. None of them

30-year-old woman has been suffering from chronic pyelonephritis. She was admitted to the hospital with decreased urination (100 ml/day), sleepiness, weakness. Her blood pressure was 200/100 mm Hg. Blood analysis showed creatinine 0,82 mmole/l, hypoproteinemia, potassium 6,3 mmole/l, normochromic anemia, increased ESR. What do you do first of all?

1. Hemodialysis
2. Antibacterial therapy
3. Diuretics
4. Hemotransfusion
5. Hypotensive therapy

28-year-old patient has had anasarca. Quantity of urine for last day was 50 ml. Urinalysis showed proteinuria 8 g/l. What the syndrome is it?

1. Hydropic
2. Nephritic
3. Nephrotic
4. Heart failure
5. Chronic renal failure

Hematuria, proteinuria and casts are suggestive of

1. Nephrotic syndrome
2. Renal cell carcinoma
3. Acute nephritis
4. Chronic renal failure
5. None of them

A 22 year old female patient complains about frequent and painful urination, urge to urinate at night, enuresis, pain in the suprapubic and lumbar area. Her urine often has beer colouring. She got married a month ago. Objectively: general state is satisfactory. Lung examination revealed vesicular respiration. Heart sounds are rhythmic, heart rate is 78/min, AP- 128/68 mm Hg. Abdomen is soft, painful in the suprapubic area. Urine contains 12-13 erythrocytes and 12-15 bacteria within eyeshot. What is the most probable diagnosis?

1. Primary syphilis
2. Infection of inferior urinary tracts - cystitis
3. Urolithiasis
4. Infection of superior urinary tracts - pyelonephritis
5. Gonorrhoea

A 46 yo. patient complains of colicky pain in the right lumbar region that is irradiating to the lower part of abdomen, nausea. She didn't have such pains before. Survey radiograph of abdominal cavity organs didn't reveal any pathological stains. Ultrasonic sonogram revealed in the enlarged right renal pelvis a hyperechoic mass approximately 1,5 cm large that gives rise to an "ultrasonic track". What is the most probable diagnosis?

1. Malignant tumor of kidney
2. Renal calculus
3. Renal cyst

4. Renal tuberculosis
5. Benign tumor of kidney

3 weeks ago a 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?

1. Renal amyloidosis
2. Cystitis
3. Pyelonephritis
4. Intestinal nephritis
5. Glomerulonephritis

A 12 year old girl suddenly got arthralgia, headache, vomiting; pain and muscle tension in the lumbar area; body temperature rose up to 39°C. Pasternatsky's symptom was distinctly positive on the right. In the urine: bacteriuria, pyuria. What is the most probable diagnosis?

1. Pararenal abscess
2. Acute pyelonephritis
3. Cystitis
4. Renal colic
5. Acute glomerulonephritis

The patient of 18 y.o. in the morning at urination noticed pass redish urine. It was not any pain here. The day before soaked in the rain. Presently complaints about a general weakness, weight in the back of head, nausea. At examination temperature 37,4.⁰C, pulse 90 b/min, rhythmic, tense. BP 150/105 mm Hg. Heart sounds of normal sonority. Symptom of percussion in a lumbar area poorly positive both side. CBC: RBC- 4,7.10¹²/L, Hb 148 g/l, L- 8,6.10⁹/l, steb 11%, N 72%, ESR – 24 mm/h/. An. urines: reaction slight acid, s.g.-1028, albumen – 1,98 g/l, RBC cover over f/v, WBC. - 10 in f/v, hyaline cylinders 5-6 in f/v, cellular ones – 1-2 in f/v. What is the most probable diagnosis?

1. Pararenal abscess
2. Acute pyelonephritis
3. Cystitis
4. Renal colic
5. Acute glomerulonephritis

The main purpose at treatment of COPD:

1. Reduction of speed of progressing of process
2. Full treatment of the patient
3. Return development of anatomic changes in bronchial tubes
4. Return development of an emphysema
5. Preparation for surgical treatment

Community-acquired pneumonia is named the pneumonia which has arisen:

1. At the person has not hurted earlier by a pneumonia

2. At the patient 65 years are more senior
3. On a background of chronic obstructive illness of lungs
4. After 48 hours after hospitalization
5. At the patient with an immunodeficiency

At sever persistent bronchial asthma clinical symptoms arise ...

1. Less then ones a week
2. Everyday
3. More then ones a week but less then ones a day
4. Less then ones a day
5. Ones a month

The patient complains of constant attacks of asthma, including daily night attacks and significant restriction of physical activity because of respiratory discomfort. FEV_1 is $<60\%$ from a due and level at daily fluctuations of FEV_1 is $>30\%$. What diagnosis is probable at the given patient?

1. Intermittent bronchial asthma
2. Sever persistent bronchial asthma
3. Mild persistent bronchial asthma
4. Moderate persistent bronchial asthma
5. COPD

As a result of microbiological inspection of sputum community-acquired Chlamydia trachomatis pneumonia is established. What from the herein provided antibiotics is preferable in that clinical situation?

1. Bisepitol
2. Cefazolin
3. Gentamicin
4. Amoxicillin
5. Clarithromycin

78-year-old patient was hospitalized with complaints to fever, cough and dyspnea. Community - acquired left-side pneumonia has been diagnosed. Treatment by ampicillin has given some positive

effect, but at the 7-th day of disease the condition has sharply worsened: temperature has increased up to 38,6°C and volume of sputum has considerably risen. What is probable reason of that situation?

1. Abscess of lung
2. Infiltration of lung tissue
3. Cor pulmonale
4. Pneumothorax
5. Pulmonary embolism

At the patient 35years, attacks of a dyspnea are marked infrequent (less than 1 time a week) which are effectively stopped by an inhalationof short action beta2 agonists. During attack dry rales are auscultated. In intervals between attacks of dyspneaFEV₁ is > 80 %. What is diagnosis?

1. Moderate persistent bronchial asthma
2. Mild persistent bronchial asthma
3. Intermittent bronchial asthma
4. Sever persistent bronchial asthma
5. None of them

The patient, 25years old, complains of pain in the left part of chest, absence of appetite and excessive sweating. On the seventh day constant fever he expectorated 150 ml of yellow colored sputum. His temperature is 38,7°C, pulse - 96 per minute, blood pressure - 110/70 mm Hg. Chest x-ray revealed round shape shadow with light zones in center. What diagnosis is most probable?

1. Community-acquired pneumonia
2. Bronchiectasis
3. Chronic obstructive pulmonary disease
4. Cancer of lung
5. Abscess

The patient 42 years complains of dyspnea stopped by 1-2 doses of Salbutamol. The termination of attack is accompanied by cough with small amount of viscid sputum. He has been ill for eight years. FEV₁ is 77 %. Prolonged expiration and diffuse wheezing are revealed on physical examination. In blood analysis total white blood cell count is slightly increased and eosinophilia. What diagnosis is most probable at the given patient?

1. Cardiac asthma
2. Chronic obstructive disease mild

3. Bronchial asthma
4. Pollinosis
5. Bronchiectasis

The patient was admitted to hospital with complaints to intensive pains in chest and dyspnea in a rest. It happened suddenly, after raising of some weight. Above the left part of chest is tympanitis, breathing is sharply weakened. What is your initial diagnosis?

1. Pneumothorax
2. Myocardial infarction
3. Pulmonary embolism
4. Pneumonia
5. Intercostal neuralgia

The student, 22years old, complaints of fever up to 39°C, cough, pain under right scapula at breathing and cough. Condition is accompanied by dyspnea in rest - up to 32 in one minute. Below the corner of right scapula is dull sound, voice trembling is weakened, soufflés are not listened. The most expedient medical approach in this case is:

1. Prescription cephalosporin
2. Prescription of furosemide
3. Strict confinement to bed
4. Pleural puncture
5. Physiotherapeutic treatment

A patient, 72years old, on the third day after operation had cough with sputum, increased temperature, weakness. On the roentgenogram was appeared infiltration in the low part of lung. What is your initial diagnosis?

1. Lung infarction
2. Community acquired pneumonia
3. Myocardial infarction
4. Exacerbation of chronic obstructive pulmonary disease
5. Heart attack of a myocardium
6. Nosocomial pneumonia

Patient M., 30 years, complaints of temperature 38°C, unproductive cough, dyspnea. Crepitation is auscultated in the low part of left lung. What method is the most informative for confirmation of the initial diagnosis?

1. Computer tomography of chest
2. Chest x-ray
3. The general analysis of blood
4. The general analysis of sputum
5. ECG

Dry rales in both lungs are typical for ...

1. Bronchial asthma
2. Left ventricular insufficiency
3. Cor pulmonale
4. Pneumonia
5. Abscess of lung

Legionnaires disease cause:

1. Congenital malformations
2. Urinary tract infection
3. Acute respiratory infection
4. Neoplastic disease

Features of Klebsiella pneumonia is/are

1. All of the above
2. High mortality
3. Upper lobes involved
4. Systemic disturbance
5. chocolate colour sputum

Which of the following drugs are used in treatment of bronchial asthma

1. Montelukast
2. Budesonide
3. Salbutamol
4. All of the above
5. Omalizumab

Which of indicators severity are used in outpatient with pneumonia

1. Age >65 y.o.
2. Blood pressure
3. All of the above
4. Respiratory rate
5. Confusion

Post influenza bacterial infection of the lung is caused commonly by

1. Staphylococcus
2. Streptococcus
3. Pneumococcus
4. Hemophilus

Aspirin sensitive asthma associated with:

1. Extrinsic asthma
2. Usually associated with urticaria
3. Associated with nasal polyp
4. Obesity

Lung Abscess is not a complication of

1. Lobar pneumonia
2. Bronchitis
3. Malignancy
4. Bronchiectasis

FEV₁/FVC ratio is decreased in all except

1. Bronchiectasis
2. Emphysema
3. COPD
4. Interstitial lung disease

A woman has developed sudden thoracic pain on the right with expectoration of pink sputum and body temperature rise up to 37, 7°C on the 4th day after the surgery for cystoma of the right ovary. On lung examination: dullness of the lung sound on the lower right is observed. Isolated moist crackles can be auscultated in the same area. What complication is the most likely?

1. Pulmonary infarction
2. Pneumonia
3. Pulmonary abscess
4. Exudative pleurisy
5. Pneumothorax

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/min., BP- 110/70 mm Hg. Respiration above the left lung is vesicular, weak above the right lung. There are various moist crackles above the lower lobe and amphoric breath near the angle of scapula. What is the most likely diagnosis?

1. Acute focal pneumonia
2. Exudative pleuritis
3. Acute pulmonary abscess
4. Pleural empyema
5. Pyopneumothorax

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

1. Aspirin-induced asthma

2. Atopic bronchial asthma
3. Infectious allergic bronchial asthma
4. Exercise-induced asthma
5. Symptomatic bronchospasm

A 40-year-old patient suffers from influenza. On the 5th day of illness there are pain behind sternum, cough with sputum, inertness. Temperature is 39,5°C. Face is pale. Mucosa of conjunctivas and pharynx is hyperemic. Heart rate is 120/min, breathing rate is 38/min. In the lower lung segments shortening of percussion sound and moist rales (crackles) can be detected. What additional investigation should be performed first of all to specify the diagnosis?

1. Lung X-ray
2. ECG
3. Heart US
4. Mantoux test
5. Spirography

A patient of 21 years has cough with purulent sputum, usually in the morning, shortness of breath, wheezing wet rack below the left shoulder blade. Fingers as drumsticks. Sputum - threelayered. Hemography: leukocytosis, left shift, accelerated ESR. The content of chloride in sweat 39 mmol/L. Bronhohramma - expanding of end sections of lower lobe bronchus on the left. What is the proper diagnosis?

1. Bronchiectasis
2. Syndrome Kartahenera
3. Cystic fibrosis
4. Chronic bronchitis
5. Idiopathic fibrosing alveolitis

As a risk reduction strategy, which ONE of the following vaccinations should be recommended to all COPD patients besides a yearly influenza vaccination?

1. Herpes zoster vaccination
2. Hemophilus influenza immunisation
3. Pneumococcal vaccination.
4. Pertussis vaccine

5. Rubella vaccine

About pharmacotherapeutic agents for COPD, which of the following is a LABA (long-acting beta-adrenoceptor agonist) that can be used as once daily medication?

1. Tiotropium.
2. Roflumilast.
3. Salmaterol.
4. Formoterol.
5. Indacaterol.

In the symptom evaluation of a patient with COPD in order to categorise him or her for diagnosis and treatment, which of the following will be the MOST APPROPRIATE tool to use?

1. COPD Assessment test (CAT) score.
2. Breathing Problems Questionnaire (BPQ).
3. Peak VO₂.
4. Peak expiratory flow rate.
5. BODE index

In doing a bronchodilator reversibility testing, you intend to give a **short-acting beta-adrenoceptor agonist**. What is the dosage that you will give?

1. 100 mcg.
2. 160 mcg.
3. 200 mcg.
4. 320 mcg.
5. 400 mcg

In doing a bronchodilator reversibility testing, you intend to give an **anticholinergic**. What is the dosage that you will give?

1. 100 mcg.
2. 160 mcg.
3. 200 mcg.

4. 320 mcg.

5. 400 mcg

In the assessment of the COPD patient for therapy, which of the following is the BEST combination to use to reflect the complexity and heterogeneity of the individual?

1. Hospital admissions for pneumonia, airflow limitation and medication response.
2. Nocturnal symptoms, ability to work, and compliance to medications.
3. mMRC, exacerbation history, and medication response.
4. FEV1 and medication response.
5. Symptoms, airflow limitation, and exacerbation history

About the asthma-COPD overlap “syndrome”, in which of the population groups is it MOST common?

1. Adolescents.
2. Young adult females.
3. Elderly.
4. Manual workers.
5. Patients with type 2 diabetes mellitus.

You have a patient whom you are preparing for a bronchodilator reversibility testing. The patient should not have taken inhaled short-acting bronchodilators for how many hours?

1. 6.
2. 12.
3. 16.
4. 20.
5. 24.

Which one of the following is a common symptom of asthma?

1. Cyanosis
2. Wheezing
3. Hypoxemia

4. Edema
5. Nasal congestion

Which one of the following comorbid conditions may worsen asthma control?

1. Obesity
2. Hypertension
3. Diabetes
4. Hyperlipidemia
5. Otitis media

An 11-year-old boy with asthma reports using albuterol once or twice in the past month. He is able to play soccer well by using albuterol before games. He denies waking at night, and his last spirometry reading FEV1/FVC was 88% (0.88). What additional asthma treatment is appropriate for this patient?

1. Montelukast
2. Salmeterol
3. Prednisone
4. Ciclesonide
5. No additional medication needed

During pregnancy, which one of the following medications is preferred as the longterm control medication?

1. Budesonide
2. Theophylline
3. Montelukast
4. Omalizumab
5. Zafirlukast

Dosing for omalizumab is based on which of the following criteria?

1. Age
2. Renal function
3. Baseline IgE levels

4. Liver function
5. Baseline severity of asthma

Which one of the following medications may worsen asthma control?

1. Furosemide
2. Carvedilol
3. Losartan
4. Varenicline
5. Atorvastatin

A 15-year-old boy with a diagnosis of moderate, persistent asthma returns to his physician's office. He has had no exacerbations in the last 2 years, and he has no complaints about his current regimen of fluticasone 220 mcg, 1 puff twice daily, montelukast 10 mg daily, and albuterol as needed. After 3 months of well-controlled asthma, which one of the following therapeutic recommendations is recommended?

1. Discontinue albuterol
2. Lower the dose of fluticasone
3. Switch fluticasone to salmeterol
4. Lower the dose of montelukast
5. Switch albuterol to levalbuterol

A 20 year old man presents with 6 months of intermittent dry cough. He is a non-smoker and has daily bilateral rhinitis and an occasional pruritic rash developing in the antecubital fossae whenever he eats seafood. Physical examination and chest X-ray are both normal. Personal and family history are both negative for asthma. Which of the following diagnoses is the most likely for this patient?

1. Allergic bronchopulmonary aspergillosis
2. Bronchial asthma
3. Bronchiectasis
4. Chronic Obstructive Pulmonary Disease
5. Eosinophilic granulomatosis with polyangiitis

A 40 year old woman with intermittent wheezing comes for spirometry and bronchodilator reversibility testing. She was given inhaled salbutamol for symptom relief by another physician. How long should she withhold salbutamol before her test?

1. At least 1h
2. At least 2h
3. At least 4h
4. At least 8h
5. At least 12h

A 60 year old man is suspected of asthma and is considered for the methacholine challenge test. Which of the following is a contraindication to testing?

1. Acute myocardial infarction occurring 6 months ago with left ventricular ejection fraction of 40%.
2. Stroke occurring 5 months ago with right hemiplegia
3. Bilateral cataract surgery 1 year ago.
4. Forced expiratory volume in one second less than 60% predicted.
5. Chronic cough with phlegm production for the past 3 months.

Which of the following can worsen asthma control?

1. Smoking
2. Gastro-esophageal reflux disease
3. Obesity
4. Certain occupational exposures
5. All of the above

The following should be assessed at every visit: A. Number of nocturnal awakenings from asthma symptoms. B. Medication adherence. C. Exacerbations since last visit. D. Colour of sputum. E. Inhaler technique

1. A, B
2. A, B, C
3. A, B, C, E
4. A, B, C, D
5. All of the above

Symptoms included in a written asthma action plan that would prompt the use of reliever therapies include all of the following except

1. Chest tightness
2. Breathlessness
3. Haemoptysis
4. Wheezing
5. Persistent Cough

If MRSA is suspected in Patients with *S. aureus* infection, what is the most appropriate antibiotic in their case?

1. Tetracycline
2. Erythromycin
3. Clindamycin
4. Vancomycin

The most common pathogenicity of pneumonia is:

1. Impairment of host defenses
2. Highly virulent organisms into the lower respiratory tract
3. Microaspiration of upper airway secretions, through inapparent aspiration
4. Contaminated water

A major factor that increases the resistance of gram negative bacilli is:

1. Prior use of broadspectrum antibiotics
2. Immunocompromised person
3. Both 1 and 2

Typical bacterial pneumonia is caused by:

1. Mycoplasmal pneumonia
2. Legionnaires pneumonia

3. *Pneumocystis carinii*
4. *Staphylococcus aureus*

Can a 28 year old female diagnosed with atypical Community-acquired pneumonia (CAP) be treated with penicillin?

1. Yes, she can
2. No, because penicillin is sensitive to atypical CAP
3. No, because penicillin is resistant to atypical CAP
4. 2 and 3

A person with *Legionella pneumophila* can be best treated with:

1. Erythromycin
2. Linezolid
3. Vancomycin
4. Ceftazidime

A 60-year-old male has had a chronic cough for over five years with clear sputum production. He smoked one pack of cigarettes per day for 20 years and continues to do so. X-ray of the chest shows hyperinflation without infiltrates. Arterial blood gases show a pH of 7.38, PCO₂ of 40 mm Hg, PO₂ of 65 mm Hg. Spirometry shows a FEV₁/ FVC of 65%. The most important treatment modality for this patient would be:

1. Oral corticosteroids
2. Home oxygen
3. Broad-spectrum antibiotics
4. Smoking cessation program

What is the most frequent cause of pulmonary embolism?

1. Congestive heart failure
2. Hemorrhagic fever
3. Deep vein thrombosis
4. Pneumonia

A 36 year old female patient complains of general weakness, edemas of her face and hands, rapid fatigability during walking, difficult digestion, cardiac irregularities. These symptoms developed 11 days after holiday at the seaside. Objectively: face erythema, edema of shin muscles. Heart sounds are muffled, BP is 100/70 mm Hg. In blood: ASAT activity is 0,95 mmol/hl, ALAT-1,3 micromole/hl, aldolase - 9,2 IU/l, creatine phosphokinase - 2,5 micromole P/gl. What method of study would be most specific?

1. Echocardiogram
2. ECG
3. Muscle biopsy
4. Electromyography
5. Determination of cortisol concentration in blood and urine

An 11-year-old boy complains of general weakness, fever up to 38, 2°C, pain and swelling of the knee joints, sensation of irregular heartbeat. 3 weeks ago, the child had a case of tonsillitis. Knee joints are swollen, the overlying skin and skin of the knee region is reddened, local temperature is increased, movements are limited. Heart sounds are muffled, extrasystole is present, auscultation reveals apical systolic murmur that is not conducted to the left inguinal region. ESR is 38 mm/hour. CRP is 2+, antistreptolysin O titre - 400. What is the most likely diagnosis?

1. Reactive arthritis
2. Vegetative dysfunction
3. Non-rheumatic carditis
4. Juvenile rheumatoid arthritis
5. Acute rheumatic fever

A 34-year-old patient after vacation in Crimea has developed severe pain in her elbow joints, dyspnea and weakness. Body temperature is 37,6°C, skin pallor and erythema on the cheeks and bridge of nose are observed, lip mucosa is ulcerated. The joints are not visibly deformed, movement of the right elbow joint is restricted. Pleura friction sound is detected in the lungs on the right side below the angle of scapula. Heart sounds are dull, tachycardia, gallop rhythm, heart rate - 114/min, Bp - 100/60 mm Hg. The most likely diagnosis is:

1. Infectious allergic myocarditis
2. Rheumatic carditis
3. Rheumatoid arthritis
4. Systemic lupus erythematosus
5. Dry pleurisy

A 28-year-old female patient with a six-year history of Raynaud's syndrome has recently developed pain in the small joints of hands, difficult movement of food down the esophagus. What disease can be suspected in this case?

1. Periarthritis nodosa
2. Systemic scleroderma
3. Rheumatoid arthritis
4. Systemic lupus erythematosus
5. Pseudotrichiniasis

A 12-year-old girl complains of general weakness, rise of body temperature up to 38,2°C, pain and swelling of knee joints, feeling of cardiac rhythm disruption. The child had tonsillitis 3 weeks ago. The knee joints are swollen, local raise of temperature is observed, mobility is reduced. Heart sounds are weakened, extrasystole is present; at the cardiac apex systolic noise can be auscultated, which is not conducted to the left axillary region. ESR is 38 mm/h. CRP 2+. Antistreptolysin-O titers are 400. The most likely disease is:

1. Acute rheumatic fever
2. Somatoform autonomic dysfunction
3. Non-rheumatic carditis
4. Juvenile rheumatoid arthritis
5. Reactive arthritis

A 40-year-old patient complains of constant moderate pain in the lumbar spine and significantly reduced mobility. The patient has been suffering from this condition for the last 7 years since pain appeared first in the sacrum area. X-ray: ankylosis of sacroiliac articulation, significant narrowing of intervertebral joint fissures of lumbar vertebrae and calcification of spinal ligaments. What pathology is most likely to cause such X-ray image?

1. Spinal tuberculosis
2. Ankylosing spondylitis
3. Spinal osteochondrosis
4. Vertebral osteochondropathy
5. Rheumatoid arthritis

An 8-year-old boy was brought to the admission department by his parents. Parents report that he has had pain in the right knee for the last 9 months, recently mother has noticed some limitation of motion

in his right leg, and morning stiffness that doesn't last till the evening. What is the most likely diagnosis?

1. Reactive arthritis
2. Rheumatism
3. Osteomyelitis of the knee joint
4. Juvenile rheumatoid arthritis
5. Traumatic arthritis

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 valve motion. What heart disease is characterized by these symptoms?

1. Mitral stenosis
2. Mitral valve prolapse
3. Mitral valve insufficiency
4. Aortic stenosis
5. Tricuspid valve insufficiency

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 erosions. What is the most likely diagnosis?

1. Gout
2. Osteoarthritis
3. Rheumatoid arthritis
4. Pseudogout
5. Multiple myeloma

A 26-year-old male patient complains of pain in the right knee, which is getting worse in the morning. Two weeks before, he consulted an urologist about prostatitis. Objectively: conjunctivitis is present. There is also periarticular edema of the knee joint, redness of the overlying skin. Rheumatoid factor was not detected. Until further diagnosis is specified, it would be reasonable to start treatment with the following antibiotic:

1. Lincosamides
2. Cephalosporins
3. Penicillins
4. Aminoglycosides
5. Tetracyclines

A 60-year-old male patient, who works as a construction worker, complains of pain in the right hip and knee joints, that is getting worse on exertion. These presentations have been observed for the last 5 years. Objectively: the patient is overnourished. Right knee joint is moderately deformed. Examination of other organs and systems revealed no pathology. Blood test results: WBCs $8,2 \cdot 10^9/l$, ESR -15 mm/h. Uric acid - 0,35 mmol/l. What is the most likely diagnosis?

1. Osteoarthritis
2. Reactive arthritis
3. Gout
4. Rheumatoid arthritis
5. Reiter's disease

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?

1. Rose-Waaler reaction
2. Complete blood count
3. Roentgenography of hands
4. Immunogram
5. Proteinogram

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?

1. Spondyloarthropathy on the background of Reiter's disease
2. Tuberculous spondylitis

3. Psoriatic spondyloarthropatia
4. Ancylosing spondyloarthritis
5. Spread osteochondrosis of the vertebral column

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?

1. Ankylosing spondylitis
2. Coxarthrosis
3. Rheumatoid arthritis
4. Reiter's disease
5. Spondylosis

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?

1. Chloroquine
2. Methotrexate
3. Prednisolone
4. Diclofenac sodium
5. Aspirin

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 - $9,5 \cdot 10^9/l$, ESR - 40 mm/h, CRP - 1,5 mg/dl, fibrinogen - 4,8 g/l, uric acid - 0,28 mmol/l. Examination of the urethra scrapings reveals chlamydia. What is the most likely diagnosis?

1. Gout
2. Rheumatic arthritis
3. Reiter's syndrome
4. Bechterew's disease
5. Rheumatoid arthritis

Which of the following auto-antibodies may have a role in monitoring disease activity?

1. Rheumatoid factor in RA
2. Antinuclear antibodies in SLE
3. Anti-Sm antibodies in SLE
4. Anti-dsDNA antibodies in SLE
5. Anti-Ro (SSA) antibodies in Sjogren's syndrome

The 10 years old boy suffered from angina 2 weeks ago has complaints on joint pain and impossibility of movement in left knee and right elbow. There was fever 38,5⁰ C and ankle dysfunction, enlargement of cardiac dullness on 2 cm, tachycardia, weakness of 1st sound, gallop rhythm, weak systolic murmur near apex. Which diagnosis corresponds to such symptoms?

1. Reiter's disease
2. Systemic lupus erythematosus
3. Juvenile rheumatoid arthritis
4. Acute rheumatic heart disease
5. Reactive arthritis

A 40-year-old female, with a known case of asthma for the last four years, presented with a two-month history of numbness in the right upper and both lower limbs. Examination revealed asymmetric neuropathy and palpable purpura over the lower limbs. Investigations revealed eosinophilia. What is the likely diagnosis?

1. Systemic lupus erythematosus (SLE)
2. Polyarteritis nodosa (PAN)
3. Giant cell arteritis (GCA)
4. Churg-Strauss syndrome

A 45-year-old female complains of pain and swelling in both wrists and knees for three months. There is increased stiffness in the hands early in the morning, which lasts close to 40 minutes. On examination, the metacarpophalangeal joints and wrists are warm and tender. There are no other joint abnormalities. There is no alopecia, photosensitivity, kidney disease, or rash. What is the most likely diagnosis in this patient?

1. Rheumatoid arthritis
2. Polymyalgia rheumatica

3. Gouty arthritis
4. Osteoarthritis

Which of the following most clearly indicates the inflammatory nature of the joint pain:

1. Pain in movements
2. Crepitus
3. Joint instability
4. Swelling and local increase of skin temperature over the joint
5. Proliferative joint configuration (deformation)

In a patient with monoarthritis of the right knee joint, an analysis of synovial fluid revealed Streptococcus. Your diagnosis.

1. Acute rheumatic fever
2. Reiter's disease
3. Rheumatoid arthritis
4. Septic arthritis
5. Reactive arthritis

Radiological signs of osteoarthritis may include the following symptoms, except:

1. Osteophytes
2. Symmetric narrowing of the joint space
3. Subchondral cysts
4. Subchondral sclerosis
5. Subluxations

Which type of antibodies should be determined in a patient with suspected rheumatoid arthritis?

1. ASL-O
2. ERS
3. ANA
4. Anti-CCP

5. Antiphospholipid a/b

What are the methods of laboratory investigations allow suspect presence of systemic inflammation?

1. Fibrinogen
2. RF
3. CRP
4. Total protein
5. Creatinine

What features are characteristic of inflammatory pain?

1. arise in the morning
2. arise in in the evening
3. arise after exercise
4. arise at the beginning of the movement

What diseases can be accompanied by the appearance of a skin rash?

1. Rheumatoid Arthritis
2. Osteoarthritis
3. SLE
4. Gout
5. Systemic scleroderma

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

1. Blepharitis
2. Retinal detachment
3. Cataract

4. Optic nerve atrophy

5. Iridocyclitis

A 12-year-old child had three attacks of acute rheumatic fever accompanied by carditis. Examination revealed the symptoms of chronic tonsillitis, mitral insufficiency, and carious teeth. What is the optimal method of secondary prophylaxis?

1. Year-round bicillin prophylaxis until the age of 25
2. Course of cardiotropic drugs twice a year
3. Year-round bicillin prophylaxis for 3 years
4. Tonsillectomy
5. Oral cavity sanitation

At a patient with the heart attack the level of the glucose is 8.2 mmol/L. 2 years passed from the beginning of the disease. What is the most expedient test to the patient for estimation of the state of carbohydrate exchange?

1. Determination level of the Hb-alc. proteins
2. Test of the tolerance to glucose
3. Determine the fasting level of the glucose during 3 days
4. Determination of day's glucoseurine
5. Determination level of the glucose in the blood for a day

A patient K., 36 years old, which complains on the headache, eyestrain, loss of appetite. He is ill during 18 years on the diabetes mellitus 1. During the examination: pale, swell face, heart increase in the left sight on 1,5 sm. Pulse – 70/min, rhythmical, pressure 180/100 mm.hg.. Stomach is soft, liver doesn't increased. Pasternackyj symptom's is negative with both sight. Urination – accelerating, mainly in the night. Analysis of the blood: Hb 98 g/l, er. $3 \cdot 10^{12}$ /L.lk. $8,2 \cdot 10^9$ /l, urea 15,8 mM/l. Cholesterin 7,6 mM/l, albumen – 81 g/l, creatynine 177 mcM/l, glucose 8,2 mM/l. Analysis of urin : specific gravity 1010, albumen 0,6 g/l, er. 1-3, l. 10-15, glucose 2 g/l, ECG: hypertrophy of the left ventricle. Your preliminary diagnosis?

1. Diabetes mellitus 1, decompensation. Diabetic nephropathy.
2. Diabetes mellitus 1, high pressure disease, stage 3.
3. Chronic glomerulonephritis.
4. Diabetes mellitus 1, hard form in the stage of compensation. Chronic pyelonephritis, arterial hypertension.

5. Non of this variant

Which regime of insulin therapy is the most correct for a patient, who is ill by diabetes mellitus and which is complicated by encephalopathy?

1. Injection by insulin of long – term action in the morning and addition injection by insulin short – term action before taking food.
2. One take injection by insulin of long – term action.
3. Repeated injection by insulin of rapid – term action.
4. Two injection by insulin per day.
5. Non of this variant.

Which is the most effective method of prevention of proliferative retinopathy?

1. Laser photocoagulation.
2. Courses of anticoagulants.
3. Anticoagulants straight action.
4. Courses of angioprotectors.
5. Anabolic steroids.

In a boy of 5 years, after measles vaccination a temperature of the body is $37,8^{\circ}\text{C}$, a big thirst, polydipsia, polyuria. Weakness is increasing during 6 hours from the beginning of the disease, noisy breathing, sleepy. Your preliminary diagnosis?

1. Diabetes mellitus.
2. Postvaccination syndrome.
3. Typical postvaccination reaction.
4. Postvaccination allergy.
5. Non of this variant.

In case of hypoglycemic coma following remedies must be immediately prescribed:

1. short-acting insulin
2. biguanides

3. sulfanilurine preparations

4. glucose

To help the patient out of the hyperosmolar coma besides insulins the following remedies must be prescribed using intravenous dropper:

1. hypotonic Na chloride solution
2. isotonic Na chloride solution
3. 4% Na hydrocarbonate
4. 10% Na chloride solution

With the hypoglycemic coma the following can be revealed:

1. Kussmaul's respiration
2. acetone odor in the expired air
3. blood osmolarity increases
4. normal state of the eye apples
5. glucosuria

A 9 year old girl has been suffering from diabetes mellitus for 3 years. The patient has fallen ill with acute respiratory infection. Her state became worse during the last two days, the temperature reached 38 C, the thirst and the frequency of urination increased. General weakness enlarged. Nausea and vomiting appeared. General condition is grave. Consciousness is dizzy. Rubeosis. The tongue is dry. Heart tones are rhythmic, accelerated. What is your diagnosis?

1. hypoglycemic coma
2. ketoacidotic coma
3. hyperosmolar coma
4. pneumonia

To the number of the main insulin effects we refer:

1. stimulating glucagone synthesis
2. lithogenesis stimulating
3. stimulating proteon synthesis

4. all mentioned above

The patient K, of 56 years old, has suffered from the diabetes mellitus for 8 years. She is overweight 8 kg. The state of her health become much worse after she had enterocolitis (vomiting, diarrhea). She was urgently hospitalized. Consciousness is absent. Expired air does not contain the odor of acetone. Breathing perfunctory accelerated, skin and mucous coats dryness. Lowering the eyeballs' tone. The diagnosis will be confirmed with determining:

1. the level of sugar in the blood
 2. the level of sugar in the urine
 3. osmolarity
 4. all mentioned above

With a differential diagnostics between the hyper and hypoglycemic comas the following should be taken into account:

- 1 the beginning of the coma
 - 2 apple eyes tone
 - 3 Kussmaul's respiration
 - 4 acetone odor in the air
 - 5 all mentioned above

The patient M. suffers from the diabetes mellitus from the age of 6. When brought into the department, her state was grave. A day before, after the diet breaching vomiting and nausea appeared. Because of the lack of appetite, mother injected half a dose of insulin. The girl drank cold tea. The following day the morning dose of insulin was missed and the girl was brought into the endocrinological department. The child is somnolent, her consciousness is intricate. There is stiff respiration in the lungs. Heart sounds are rhythmic, accelerated. Her liver is palpated 4 cm lower than the costal arch. Your preliminary diagnosis is:

1. hyperosmolar coma
 2. lacticidemic coma
 3. hypoglycemic coma
 4. ketoacidotic coma

For the lacticidemic coma is not characteristic:

1. Kussmaul's respiration
2. tachicardia
3. hypotonia
4. oliguria, anuria
5. hyperthermia

For helping the patient out of the lacticidemic coma it is necessary to inject intravenously:

1. physiological salt solution
2. Na bicarbonate solution
3. 5% glucose solution
4. all mentioned above

When insulin therapy are indicated ?

1. All it's true
2. Proliferative angioretinopathy
3. Ketoacidotic state
4. Myocardial infarction
5. Aorto-coronal shunting

Patient, 24 years, suffers with diabetes mellitus during 8 years. He uses insulin therapy. Hewashospitalizedunconscious. Whichfromlistedactions is need for treatment of hypoglycemic coma?

1. IVstreamintroductionof 40% glucose
2. IV droply introductionof10% glucose
3. IV droply introductionof 40% glucose
4. IV droply introductionof5% glucose
5. IV droply introductionof 40% glucose and 6-8U of insulin

Patient, 54 years, is ill with diabetes mellitus during 8 years. He uses insulin therapy. Hewashospitalizedwithglycemia 45 mmol/lunconscious. Which from listed symptoms are not typical for hyperosmolar coma?

1. Ketoacidosis
2. Local neurological symptomatic
3. High hyperglycemia
4. Dehydration
5. Hypopnoe, tachypnea

Patient, 63 years, is ill with diabetes mellitus type 2. High hyperglycemia, sharp dehydration, hyperchloremia, hypernatremia were developed during acute stroke. Ketonemia and acetonuria are not present. Define true diagnosis:

1. Hyperosmolar coma
2. Acute renal failure
3. Hyperketonemic diabetic coma
4. Chronic renal failure
5. Hyperlactacidemic coma

Coma developed in man, 25 years, who is ill with diabetes mellitus during 8 years. Objectively: a skin is dry, turgor is reduced, Kussmaul's breathing's present, BP - 105/60 mmHg, HR - 116/min, smell of acetone in mid air. What is the type of coma in this patient?

1. Ketoacidotic
2. Hyperosmolar
3. Lactacidotic
4. Hypoglycemic
5. Cerebral

Coma developed in man, 28 years, with bronchopneumonia. Objectively: HR - 122/min, extrasystoles. BP - 80/45 mmHg. Skin is dry, turgor is reduced. Breathing is deep, noisy, liquid. Strong smell of acetone in mid air. Liver +5cm. Glycemia - 32 mmol/l. pH of blood - 6,9. What solution is most directed to operate on normalization of metabolism?

1. 4,2% solution of sodium hydrocarbonatis
2. 5% solution of glucose
3. 0,9% solution of sodium chloride
4. 1% solution of potassium chloride
5. Rheopolyglukin

Woman, 18 years, is ill with diabetes mellitus during 5 years. She intakes 36U of insulin a day. The state became worse sharply after start of pneumonia: thirst increased, abdominal pain developed, nausea, vomits, somnolence increased considerably. Patient refused to meal in the evening, did not get evening dose of insulin, and she lost consciousness in the morning. Objectively: unconscious, a skin is dry, turgor is reduced. Tongue is dry, breathing is noisy and deep, strong smell of acetone from a mouth. Body temperature - 36,6 °C, pulse - 100/min, BP - 90/50mmHg. In urine positive reaction on acetone is present. Glucose - 33mmol/l. What is previous diagnosis?

1. Ketoacidotic coma
2. Hyperosmolar coma
3. Lactacidemic coma
4. Hepatic coma
5. Cerebral coma

Patient was hospitalized unconscious. He is ill with diabetes mellitus during 5 years. He intakes prolonged action insulin in dose 24U in the morning and 18U in the evening. Suddenly he lost consciousness. A skin is moist, tone of muscles of extremities is promoted. Tone of eyeballs is normal. Ps - 96/min, BP - 120/80mmHg. Cardiac tones are normal. Breathing is rhythmic. Language is moist. What emergency therapy is need?

1. Introduction of 40% glucose solution IV
2. Introduction of short action insulin IV
3. Introduction of 4% sodium hydrocarbonatis solution IV
4. Introduction of hydrocortizone IV
5. Introduction of adrenalin subcutaneously

Whatever feature is not typical for myocardial infarction in patients with diabetes mellitus?

1. It is accompanied by development of hypoglycemia
2. Q-miocardial infarction
3. Absent ECG-signs of myocardial infarction
4. Absent increase level of markers of myocardial necrosis
5. Absent development of complications of myocardial infarction

What is the typical sign of Kimmelstil-Wilson's syndrome?

1. Nephrotic syndrome
2. Strong hypertension
3. Proteinuria, cilinderuria
4. Leukocyturia
5. Microalbuminuria

Specify the early marker of diabetic nephropathy:

1. Microalbuminuria (30-300mg/day)
2. Proteinuria (more than 300mg/day)
3. Hypertension
4. Decreasing of glomerular filtration rate less 10ml/min
5. Glucosuria (more than 10g/l)

A family doctor had been called to a patient with type 1 diabetes mellitus. Apparently: the patient is adynamic (a condition of deep sleep), he comes out of it only under intensive stimulus, noisy respiration, the skin is dry, retracted abdomen. Members of family told, that patient's condition has gone worse for last 2 days. What is the tactic of the family doctor here?

1. Urgent hospitalization of the patient to a hospital.
2. To organize a treatment at home, in order to observe rehydration.
3. To prescribe to the patient plentiful drink.
4. To seek for an endocrinologist's consultation at the patient's home (for taking the decision about his further treatment).
5. To make patient's examination the next day.

A 72 years old man, has come to a surgeon in polyclinic complaining a pain in the lower extremities before which he felt numbness and crawling of bugs under the skin there over and at night especially having cramps in gastrocnemius muscle. Diabetes mellitus was found out during examination. What complications of diabetes mellitus can take place over here?

1. Diabetic neuropathy.
2. Diabetic macroangiopathy.

3. Diabetic microangiopathy.
4. Plexopathy.
5. Radiculopathy.

A woman 59 years old, has been suffering 2 diabetes mellitus for last 8 years, complains nail-bed hemorrhages on both first toes with no mechanical injury with raised fragility of nails along with the pain in lower extremities. What can be the most probable reason of these symptoms?

1. Diabetic microangiopathy
2. Atherosclerotic angiopathy of vessels of lower extremities.
3. Fungal lesions of nail.
4. The raised fragility of blood vessels due to the lack of vitamin PP.
5. Pain connected with impaired innervations due to lumbosacral radiculitis.

At woman 23 y. o. gestational diabetes mellitus is developed during pregnancy. An endocrinologist prescribed diabetic diet and insulin therapy to her. Diabetes was in the stage of compensation during pregnancy. What may be tactics of supervision after labour?

1. Insulin treatment is not necessary but making the glucose tolerant test annually.
2. To continue treating with insulin.
3. To discontinue insulin but to appoint medicine of sulphonilureas.
4. To discontinue insulin but to appoint biguanides.
5. To administer biguanides along with insulin.

At the man of 25 years who is ill with a diabetes of 8 years, illness complication, a coma: a condition heavy, a skin dry, turgor skin it is lowered, an acetone smell, breath Kussmaul's, blood pressure 105/60, pulse-116/minute. What kind of a coma can be suspected?

1. Lactacidemia
2. Hyperosmolar coma
3. Ketoacidosis
4. Hypoglycemic coma
5. Brain coma

M., 12 years old, after the carried chickenpox in a heavy form there was the promoted thirst (drinks to 5 liters in a day), poliuriya, dry skin, pruritus. Patient's grandfather is ill with diabetes mellitus. Level of glucose – 15 mmol/l, acetone of urine +. Your diagnosis.

1. Diabetes mellitus is type 1, stage of decompensation, ketosis ;
2. Diabetes mellitus type 1, subindemnifications;
3. Diabetes mellitus 2 types, easy motion;
4. Diabetes mellitus type 2, to middle weight, stage of indemnification;
5. Diabetes mellitus type 1, heavy form, ketoacidosis.

A, 30-year-old nursing student presents with confusion, sweating, hunger, and fatigue. Blood sugar is 2,1 mmol/L. The patient has no history of diabetes mellitus, although her sister is an insulin-dependent diabetic. The patient has had several similar episodes over the past year, all occurring just prior to reporting for work in the early morning. On this evaluation, the patient is found high insulin levels and a low C peptide level. The most likely diagnosis is

1. Factitious hypoglycemia
2. Reactive hypoglycemia
3. Early diabetes mellitus
4. Insulinoma
5. Diabetes insipidus

Woman 25 years old without consciousness was delivered to the hospital. Mother of the patient had told, that the daughter was ill with a diabetes since the childhood. Daily receives 40 UN insulin. Several days ago has autocratically stopped treatment. There was a thirst, weakness, appetite has decreased. In the morning the patient could not wake. A skin dry, turgor is lowered, eyeballs soft. Kussmaul's breath, an acetone smell. A tachycardia 110 per minute the BP is 100/45 mm hg, the stomach soft; a liver is 3 sm below edge of a costal arch. Blood glucose 17,5 mmol/l. Urgent therapy should include:

1. Fractional treatment by insulin in a dose 10 UN in an hour
2. Dehydration - furosemid
3. Insulin 100 UN IV
4. Reopolyglucin to 1,0 l
5. Prednisolon 60-90 ml IV

After a cross-country race 9 y.o. boy suddenly felt pain and edema in his right knee. Family anamnesis has no data about bleeding sickness.

Blood count: Hb- 123 g/L, leukocytes - $5,6 \cdot 10^9/L$, thrombocytes - $354 \cdot 10^9/L$, partly activated thromboplastin time - 72 sec. (N 35-45 sec). Hemorrhage time is normal. VIII:C factor is 25% of norm.

What is the most probable diagnosis?

1. Hemophilia A
2. Hemophilia B

3. Rheumatoid arthritis
4. Vitamin K deficiency
5. Thrombocytopenia

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?

1. Patients after 60
2. All children
3. Patients after operation
4. Workers of industrial enterprises
5. Pregnant women

An employee undergoes polychemotherapy because of acute leukemia for 6 months. Who has the right to authorize the issue of the medical sick-list for the next treatment?

1. DCC
2. MSEC
3. DCC together with the head physician of a polyclinic
4. Deputy head physician on working capacity
5. Head physician of the polyclinic

A 28 weeks pregnant woman has disorder of taste, fragile nails. CBC: Hb 87 g/l; MCV 68 fl, MCH 24 pg, MCHC 260 g/l.

Which medication have to be prescribed?

1. Vit. B 12
2. Ferrous sulfate orally
3. Folic acid
4. Ferrous sulfate i/v
5. Folic acid with vit. B12

Which medication have to be prescribed for the prophylaxis of anemia after subtotal gastric resection?

1. Ferrous sulfate orally
2. Ferrous sulfate i/v
3. Folic acid
4. Vit. B 12
5. Recombinant erythropoietin

36 y.o. female constantly takes metatrexate 15 mg a week due to Rheumatoid arthritis. Which medication have to be prescribed for the prophylaxis of anemia?

1. Ferrous sulfate i/v
2. Ferrous sulfate orally
3. Folic acid
4. Vit. B 12
5. Folic acid with vit. B12

Patient with lung cancer has hypochromic microcytic anemia (Hb 88 g/l, CI 0,8). Blood ferritin is high. Iron supplementation is inefficiently. Which medication has being prescribed for anemia correction?

1. Ferrous sulfate orally

2. Ferrous sulfate i/v
3. Folic acid
4. Vit. B 12
5. Recombinant erythropoietin

Patient with lung cancer has hypochromic microcytic anemia (Hb 88 g/l, CI 0,8). Blood ferritin is high. Iron supplementation is inefficiently. What a kind of anemia do you suspect?

1. IDA
2. Folic deficient
3. B 12 deficient
4. Anemia of chronic disease
5. Hypoplastic anemia

A patient who works as a nightman was diagnosed with of chronic arsenious intoxication. What form of anemia is characteristic for this disease?

1. Haemolytic anemia
2. Aplastic anemia
3. Iron deficiency anemia
4. Hyper sideric anemia
5. Hypoplastic anemia

Young man with family history of hemophilia A has posttraumatic cubital hemarthrosis. Bleeding time (Li-White time) 27 min.

What drug will be the most effective for this patient treatment?

1. Calcium chloride
2. Cryoprecipitate
3. Erythromass
4. Aminocapronic acid
5. Vicasol

36 y.o. woman complains about bruises on her both legs and prolonged menstruation; general weakness, tinnitus cerebri. Objectively: multiple bruises on the legs and body. CBC: RBC - $3,1 \cdot 10^{12}/l$, Hb- 90 g/l, CI - 0,87; Pl - $30 \cdot 10^9/l$, ESR- 32 mm/h. Duke time - 12 min. Bone marrow analysis: plenty of juvenile forms of megacaryocytes without signs of thrombocyte pinch-off.

What is the most likely diagnosis?

1. Tupe B haemophilia
2. Type A haemophilia
3. Willebrand's disease
4. True thrombocytopenic purpura
5. Acute megacaryoblastic leukemia

A 53 y.o. patient complains of general weakness, palpitation, mucous and cutaneous hemorrhages, worsening progressively for a month. Objectively: grave condition, numerous bruises, lymph nodes are not palpable, Ps- 116/min, spleen is not palpable. Blood has evident pancytopenia.

What disease should you think about first of all?

1. Acute leukosis
2. Hemorrhagic vasculitis

3. ITP
4. Hypoplastic anemia
5. Willebrand's disease

A 53 y.o. patient complains of general weakness, palpitation, mucous and cutaneous hemorrhages, worsening progressively for a month. Objectively: grave condition, numerous bruises, lymph nodes are not palpable, Ps- 116/min, spleen is not palpable. Blood has evident pancytopenia.

Which method should be used to prove the diagnose?

1. CBC
2. Bone marrow aspiration
3. Lym.node biopsy
4. Trephine biopsy of posterior iliac crests
5. PET CT

A 53 y.o. woman is suspected of aplastic anemia. The trephine biopsy of posterior iliac crests has been administered with the diagnostic purpose.

What changes in the marrow structure are suggested?

1. Replacement of marrow elements with adipose tissue
2. Replacement of marrow elements with fibrous tissue
3. Prevalence of megaloblasts
4. Presence of blast cells
5. Absolute lymphocytosis

A 38 y.o. patient passed CBC due to fever up to 38,5°, general weakness, neck lym. nodes enlargement. Objectively: skin and mucous membranes are extremely pale, lym. nodes on the both sides of neck are up to 1 cm, painless. Spleen is palpable, 1 sm below ribs arch. CBC: Hb- 98g/l, RBC- $2,9 \cdot 10^{12}/l$, leuk. - $32 \cdot 10^9/l$, stab - 0%, segmental - 28%, mon. - 2%, lymph. - 39%, blasts - 31%, Pl - $100 \cdot 10^9/l$, ESR- 36 mm/h.

What is a probable diagnose?

1. Acute myeloblastic leukosis
2. Chronic lympholeukosis
3. Acute lymphoblastic leukosis
4. Chronic myeloleukosis
5. Multiple myeloma

A 36 y.o. patient complains of skin itch, night sweating, wavy fever up to 38,6°C. Left anterior neck lym. nod enlarged up to 1 sm, firm, painless, movable.

Which investigation is the most reasonable?

1. Punction of an enlarged lymph node
2. Common blood count
3. USE of neck organs
4. CT of thorax
5. Excisional biopsy of enlarged lymph node

A man, aged 68, complains of tiredness, sweating, enlargement of cervical, submaxillary and axillary lymph nodes. Blood test: WBC- $35 \cdot 10^9/L$, lymphocytes - 60%, shadow cells, level of haemoglobin and quantity of thrombocytes is normal. Myelogram showed 40% of lymphocytes. What is the most probable diagnosis?

1. Chronic lympholeucosis
2. Chronic myeloleucosis
3. Lymphogranulomatosis
4. Acute leucosis
5. Tuberculous lymphadenitis

A man, aged 69, complains of tiredness, sweating, enlargement of cervical, submaxillary and axillary lymph nodes, subfebrile temperature. Blood test: WBC- $55 \times 10^9/L$, lymphocytes - 85%, shadow cells, level of haemoglobin and quantity of thrombocytes is normal. Myelogram showed 70% of matured lymphocytes.

Which medical approach needs the patient?

1. Only observation
2. CHOP polychemotherapy
3. Rytuximab+CHOP
4. Antityrosinkinase agent monochemotherapy
5. Alkaline agent monochemotherapy

Splenomegaly was revealed in 27 y.o. patient with complains for common weakness. CBC: Hb 130 g/l Pl. $450 \times 10^9/l$, WBC $39 \times 10^9/l$. Blast cells 1%, Ba.-2% Eo.-7% PMC- 1%, MC – 8%, MMC – 4%, Stab cells 24% Segmented cells – 33% Lym. – 17% Mon – 3%. ESR – 42 mm/h.

What is the most probable diagnosis?

1. Chronic lympholeucosis
2. Chronic myeloleucosis chronic stable phase
3. Chronic myeloleucosis acceleration phase
4. Chronic myeloleucosis initial phase
5. Acute leucosis

A 27 y.o. patient complains for common weakness. Splenomegaly was revealed during USE. CBC: Hb 130 g/l Pl. $450 \times 10^9/l$, WBC $39 \times 10^9/l$. Blast cells 1%, Ba.-2% Eo.-7% PMC- 1%, MC – 8%, MMC – 4%, Stab cells 24% Segmented cells – 33% Lym. – 17% Mon – 3%. ESR – 42 mm/h.

Which medical approach have to be used?

1. Only observation
2. CHOP polychemotherapy
3. Rytuximab+CHOP
4. Antityrosinkinase agent monochemotherapy
5. Alkaline agent monochemotherapy

26 y.o. woman passed USE. It was found out gall bladder stones and moderate splenomegaly. CBC revealed Hb 80 g/l, microspherocytes. Osmotic resistance of erythrocytes: min.-0,52 max.-0,44.

What is the most probable main diagnosis?

1. Calculose cholecystitis
2. Lymphoma of spleen
3. Thalassemia
4. Myeloproliferative disease
5. Microspherocytosis

26 y.o. woman passed USE. It was found out gall bladder stones and moderate splenomegaly. CBC revealed Hb 80 g/l, microspherocytes, reticulocytes 8%. Osmotic resistance of erythrocytes min.-0,52 max.-0,44. Bilirubin 40 mmol/l; indirect bilirubin 32 mmol/l.

Which medical approach have to be used?

1. Splenectomy
2. Cholecystectomy
3. Prednisolon 60 mg a day
4. Splenectomy after pneumococcus and H. Influenta vaccination
5. Prednisolon 30 mg a day

What a method is the most useful to control remission in patients with lymphomas?

1. Needle biopsy of lym. node
2. USE of abdominal cavity
3. CT of chest
4. Bone marrow cytology
5. PET CT

A 60 year old female is suffering from back pain which has woken her from her sleep for the last few months. She has also noticed feeling thirsty and has been more constipated. Bloods reveal a normochromic normocytic anaemia, thrombocytopenia, leucopenia, renal impairment and hypercalcaemia. What is the most likely diagnosis?

1. Non Hodgkins lymphoma
2. Amyloidosis
3. Monoclonal gammopathy of undetermined significance
4. Multiple myeloma
5. B12 deficiency

A 29 y.o. female is found to have a hypochromic microcytic anaemia with target cells. Her iron and ferritin are at the higher end of the norm and her Hb A2 is 6%. What is the most likely diagnosis?

1. Beta thalassaemia
2. Iron deficiency anaemia
3. Sideroblastic anaemia
4. Alpha thalassaemia minor
5. Anaemia of chronic disease

Which of the following is thought to be useful in reducing pain crises in sickle cell anaemia?

1. Azathioprine
2. Hydroxyurea
3. Hydroxychloroquine
4. Methotrexate
5. NSAIDs

A 73 y.o. male with symmetric neck and axillary lymphadenopathy has elevated lymphocyte count of $30 \times 10^9/l$. Hb is 139 g/l Pl - $290 \times 10^9/l$. He has no complains except periodical exacerbation of osteoarthritis. The diagnosis of CLL is confirmed. Which of the following is the next appropriate management stage?

1. Commence chemotherapy with chlorambucil
2. Commence chemotherapy with cyclophosphamide + doxorubicin + prednisolone

3. Monitor with regular blood tests
4. Radiation therapy
5. Stem Cell Transplant

A 60 year old female has been diagnosed with Chronic Lymphocytic Leukaemia. Which of the following would be an indication for commencing treatment?

1. Lymphocyte count of $50 \times 10^9/l$, asymptomatic
2. Haemoglobin of 11.0 (baseline 12.5)
3. Cytogenetics of del 13q14
4. Extreme Fatigue
5. Lymphocyte doubling time of 12 months

A 65 year old male presents with right upper quadrant pain. He has noticed increased abdominal swelling. On examination he has hepatomegaly and ascites. He has a past medical history of polycythaemia rubra vera. What is the most likely diagnosis?

1. Budd Chiari syndrome
2. Pancreatic cancer
3. Alcoholic liver disease
4. Gallstones
5. Hepatic metastases

In polycythaemia Rubra Vera which of the following mutational analysis should be performed?

1. JAK2
2. p53
3. BRCA1
4. BCR-ABL
5. NOTCH1

What medical form district physician have to use to analyze pathologic affection after preventive examination of the serviced population?

1. «Coupon of patient who receives outpatient care» with (+)
2. «Coupon of patient who receives outpatient care» with (-)
3. «Coupon to see a doctor»
4. «Journal of prophylactic examinations»
5. «Outpatient medical card»

What maximal term of child care sick leave can be given to working mother of baby at the age 0-7?

1. On 14 days during the month
2. On 30 days during the year
3. On 60 days during the year due to all causes
4. On 120 days during the year due to all causes
5. During all period of child disease

A primary care physician carried out the analysis of morbidity in a serviced district. What kind of morbidity can be used to study the group of long-lasting and frequently sick working patients?

1. Admission rate
2. General
3. Infectious
4. Social important illnesses
5. With temporal disability

Indicate time period when doctor can independently register and prolong sick leave according to regulation about temporary disability:

1. 10 days
2. 14 days
3. 15 days
4. 30 days
5. All period of patients` disability

A man needs constant outside care after amputation of both low extremities. What group of invalidity he can receive according to decision of Bureau of medico-social expertise?

1. I
2. II
3. II-A
4. II-B
5. III

A working man had inpatient treatment for three months due to a severe injury. What total maximal term of sick leave can be given to the patient to continue outpatient treatment and rehabilitation by Medical commission?

1. 3 months
2. 4 months
3. 9 months
4. 10 month
5. 12 months

Who has right to conduct examination of temporal disability and to issue sick leave in Russian Federation?

1. Physicians of medical establishments, clinics of research institutions and prosthetics, dentists and medical assistants
2. Physicians and clinics of research institutions and prosthetics, doctors of ambulance
3. Physicians of blood transfusion stations, medical assistants and dentists
4. Physicians, medical assistants and dentists
5. Physicians of hospitals, medical assistants and dentists

What types of rehabilitation are used for disabled?

1. Medical, professional, complex, partial
2. Medical, psychological, professional, social
3. Medical, psychological, social, complex
4. Occupational, labor, complex, partial

5. Psychological, professional, full, partial

What are the basic criteria to determine group of invalidity?

1. The degree of dysfunctions and life activity limitation
2. Ability to work and self-care
3. The presence of chronic disease
4. The frequency of complications and recurrences of chronic diseases
5. The presence of comorbidities

What activities of primary prevention should be included in the General practitioner's working plan?

1. Hygiene education
2. Planned vaccination
3. Rehabilitation
4. Sanitary measure
5. Medical examination of contractual population

What medical document should be registered by physicians of polyclinic or hospital when revealing or suspected infectious disease in a patient?

1. "Outpatient medical card"
2. "Inpatient medical card"
3. "Sick leave"
4. "Emergency notification about infectious disease..."
5. "Referral to hospital, observation, consultation"

What statistical medical form should be used by primary care physicians in Russian Federation for recording and analysis of general morbidity (prevalence)?

1. "Sick leave"
2. "Medical death certificate"
3. "Coupon of patient who receives outpatient care"
4. "Outpatient medical card"
5. "Statistic card of patient discharged from hospital"

How many groups of dispensary observation should be formed by a primary care doctor on the serviced district for active dynamic observation of the population in Russian Federation?

1. 3
2. 4
3. 5
4. 6
5. 7

What types of medical care are provided to the population in a city polyclinic?

1. Primary health care and specialized care
2. Primary care, specialized care including high technological medical care
3. Emergency care and palliative medical care
4. Primary health care and emergency care
5. Primary health care including primary pre-medical, primary care and primary specialized care

Describe the main principles of outpatient care in Russian Federation:

1. Continuity and stages, preventive orientation, professionalism
2. District principle of service, continuity and stages, prevention priority, availability
3. Preventive focus, professionalism, compassion, accessibility
4. Preventive orientation, compassion, accessibility
5. Professionalism, preventive orientation, availability, compassion

What additional investigations are obligatory during dispensarisation?

1. CBC (Hb, ESR, Le);
2. heamostasiogramm;
3. EchoCG;
4. Urinary culture;
5. Spirography

A district physician has diagnosed domestic accident chemical factory's worker with on holyday.

What document should be given to legalize his disability?

1. Certificate of definite form
2. Certificate of free form
3. Sick-leave from the first day
4. Sick-leave from the next day after presenting to physician
5. No documents

The first (I) dispensary group involves:

1. healthy patients don't need dispensary observation;
2. patients with risk factors need primary prevention;
3. patients with acute disease need additional investigation for primary diagnose verification;
4. patients with chronic disease need additional investigation and in-hospital treatment;
5. patients with indications for specialized tertiary level care.

The patient G. 37 years old with Acute Viral Respiratory Infection complains of pain in the cardiac region, palpitation, dyspnea. Objectively: acrocyanosis, heart sounds are weaken, systolic murmur above the apex, extrasystole, blood pressure 90/60 mm Hg. What is recommended?

1. Electrophysiological test.
2. Laboratory test.
3. Hospitalization.
4. All the given below.
5. None of the above.

Specify the standard number of serviced population on the one therapeutic district in a city polyclinic:

1. 1700 persons
2. 1900 persons
3. 1955 persons
4. 2200 persons
5. 2500 persons

What medical document is used to register new cases of tuberculosis?

1. "Control card of dispensary observation of TB patient"
2. "Data on patients with TB"

3. "Data of new cases and relapse of TB"
4. "Medical card of TB patient"
5. "Notification of patients with first registered TB or recurrent TB"

A patient suffers from nocturnal paroxysms of bronchial asthma accompanied by bradycardia, spastic intestinal pains and diarrhea. Medicine of what group can relieve these symptoms?

1. SABA
2. LABA
3. M-cholinoblockers
4. H- cholinoblockers
5. beta-adrenoblockers

Patient 72 year-old, complain of cough with secretion of large amount of sputum, dyspnea during walking, weakness. In anamnesis – near 20 years chronic obstructive bronchitis. During investigation clubbing of fingers, Pulse 120/min. Heart: tones are dull, accentuation of 2nd tone on pulmonary artery. In lung bronchial breathing, large amount of dried and moist rales. What changes in ECG are typical for this patient?

1. Left atrial hypertrophy
2. Right atrial hypertrophy
3. Left ventricular hypertrophy
4. Right ventricular hypertrophy
5. AV blockade 1st degree

A 47 years old man after lifting a considerable heavy weight suddenly felt an acute pain in the right side of the chest and breathlessness. A symptoms increased and mucous and skin became cyanotic. An emergency doctor learned that 7 years ago the patient was ill with an infiltrative chest tuberculosis of the right lung, had recovered and was not examined within the last 3 years. On percussion exaggerated tympanitis was revealed over the right part of chest and auscultation revealed the sharply weakened breath sounds here. What disease should be the first thought?

1. Spontaneous pneumothorax
2. Pulmonary thromboembolism
3. Right lung atelectasis
4. Croupous pneumonia
5. Right lung atelectasis

A 52 y.o. male patient has become ill gradually. There is heaviness in the left side of the thorax during 2 weeks, elevation of temperature till 38-39°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. What is the most probable diagnosis?

1. Exudative pleuritis
2. Infarction-pneumonia
3. Cirrhotic tuberculosis
4. Spontaneous pneumothorax
5. Atelectasis of lung

A 26-year-old man was admitted to the hospital complaining of stabbing back pain on inspiration and dyspnea. On exam, BT of 37°C, PR of 24/min, HR of 92/min, vesicular breath sounds. There is a dry, grating, low-pitched sound heard in both expiration and inspiration in the left lower

lateral part of the chest. What is the most likely diagnosis?

1. Acute fibrinous pleuritis
2. Myocarditis
3. Pneumonia
4. Acute bronchitis
5. Pneumothorax

Severe complications in patients with COVID-19 are more typical for:

1. Persons with COPD
2. Persons with bronchial asthma
3. Healthy persons and patients with COPD
4. Healthy persons and patients with bronchial asthma
5. Patients with bronchial asthma or with COPD

Primary prophylactic of bronchial asthma include:

1. Elimination of causes of diseases
2. Early diagnosis of diseases
3. Early onset of treatment
4. Palliative treatment

First medical aid in severe asthma attack carries out by:

1. Any medical professional
2. Only doctors
3. Only paramedics
4. Only surgeons

Sick leave may be given to foreign citizen with dyspnea:

1. If he is disabled
2. After operation
3. If he works in Russian business and is disabled
4. If he go down with tuberculosis

Rehabilitation is indicated for patients with ___ degree of COPD:

1. Mild
2. Moderate
3. Severe
4. Very severe
5. Any

On the base of results of prophylactic medical examination (dispensarization) I group of health include:

1. People without complains
2. Healthy persons with or without risk factors
3. Patients with chronic diseases in remission stage
4. Patients who need high-technology medical manipulations

Monoclonal Antibody used in Asthma is:

1. Omalizumab
2. Transtuzumab
3. Muromonab
4. Alemtuzumab

In the chronic obstructive pulmonary disease (COPD) may be:

1. $FEV_1 < 30\%$ of predicted value
2. $FEV_1/FVC < 0.7$ (70%)
3. Total lung capacity increased
4. All

In moderate severity obstructive lung disease, the expected abnormalities include the following except:

1. \uparrow residual capacity
2. \downarrow residual capacity / total lung capacity ratio
3. \downarrow vital capacity
4. $FEV_1/FVC < 0.7$ (70%)

Doctors prescribes albuterol sulfate (salbutamol) for a patient with newly diagnosed asthma. When teaching the patient about this drug, the nurse should explain that it may cause:

1. Nasal congestion
2. Nervousness
3. Lethargy
4. Hyperkalemia

Patient with sick-list from 18.03 to 22.03 for acute respiratory infection come to the doctor 26.03 with clinical picture of pneumonia. What have to do primary care physician?

1. Give new sick-list to patient
2. Extend this sick-list from 26.03 till recovery
3. Extend this sick-list from 23.03 till recovery with mark of regime disturbance
4. Extend this sick-list from 26.03 till recovery with mark of regime disturbance

Most common duration of sick-list in acute bronchitis:

1. 5 days
2. 10 days
3. 20 days
4. 30 days

In patients with mild and moderate stages of COPD vaccination against influenza should be done once in:

1. 6 month
2. 1 year
3. 2 years
4. 3 years

If medical professional in the hospital suspect dangerous respiratory infection he have to:

1. Isolate patient, stay with him in separate room and inform head of the hospital
2. Isolate patient and go to the head of the hospital to inform him
3. Isolate patient and complete special notification
4. Inform all medical professionals in the hospital about this patient

Recommended amount of adult people in therapeutic district in the city is:

1. 1200
2. 1700
3. 2000
4. 3000

For out-patient treatment of out-patient with pneumonia with temporary loss of ability to work, attending physician alone may give sick leave

1. No more than for 5 days period
2. For a period not exceeding 10 days
3. For a period not exceeding 15 days
4. For the entire duration of treatment

In case of disability due to pneumonia with alcoholic intoxication person receive:

1. Health certificate for 3 days
2. Health certificate for all days with point at alcoholic intoxication
3. Sick leave for 3 days
4. Sick leave for all days with point at alcoholic intoxication

Breathing exercises in curative gymnastics include:

1. Sound exercises
2. Isometric exercises
3. Resolve exercises
4. Symmetrical exercise

Special exercises in acute pneumonia include:

1. Breathing exercises
2. Resolve exercises
3. Symmetrical exercises
4. Isometric exercises

What is true for the acute respiratory distress syndrome (ARDS)?

1. Lung compliance decreased
2. Type 2 respiratory failure
3. Increase in diffusion capacity
4. None

In acute respiratory distress syndrome (ARDS) mechanical ventilation use ___ ml/kg (predicted body weight):

1. 2-3
2. 5-7
3. 5-10
4. 12-14

Investigation of choice for detection and characterization of interstitial lung disease is:

1. MRI
2. Chest X-ray
3. Ventilation/perfusion scan
4. High resolution CT

A 65-year-old woman after total knee implant surgery complains of calf pain and swelling in the leg from last 2 days. Later she complains of breathlessness and dies suddenly in the ward. What is probable cause?

1. Stroke
2. Myocardial infarction
3. ARDS

4. Pulmonary embolism

Investigation of choice for bronchiectasis:

1. High resolution CT
2. Spiral CT
3. Bronchoscopy
4. Pulmonary angiography

Student with acute rhinitis sees the campus nurse because of excessive nasal drainage. The nurse asks the patient about the color of the drainage. In acute rhinitis, nasal drainage normally is:

1. Yellow
2. Green
3. Clear
4. Gray

A patient, aged 45, complains of frequent heartburns, air and acid eructation, dry cough. Following complains he has for near 6-8 months. The patient was not examined, takes Maalox by self-medication, after the intake of which feels better. In endoscopy signs of erosive reflux-esophagitis was revealed. What is the approximate duration of antisecretory treatment by PPI in this case?

1. 2-4 weeks
2. 4-6 weeks
3. 6-8 weeks
4. 8-12 weeks

48 y.o. man complains of the "night "and "hungry" abdominal pain, heartburn for last 3 years. Ulcerative defect with a fibrin was found on endoscopy observing bulbous of duodenum, Rapid urease test was positive. What treatment should be recommended in this case:

1. Pantoprazole 20 mg once a day + Clarithromycin 500 mg two times a day + Amoxicillin 500 mg two times a day
2. Pantoprazole 40 mg once a day + Clarithromycin 1000 mg two times a day + Amoxicillin 500 mg two times a day
3. Pantoprazole 40 mg twice a day + Clarithromycin 500 mg two times a day + Amoxicillin 1000 mg two times a day
4. Pantoprazole 20 mg twice a day + Clarithromycin 500 mg two times a day + Amoxicillin 500 mg two times a day

A 37 -year-old woman complained of squeezed epigastric pain 1,5-2 hour after meal, heartburn, discomfort in upper part of abdomen when fasting. She had been ill for 2 years. On palpation, there was moderate tenderness in pyloroduodenal area. Hyperemia and few erosions in antral part of stomach and in duodenal bulbous was revealed on esophagogastroduodenoscopy. What next study must be done?

1. C13-urease breath test
2. Gastrin level in blood
3. Benzidine test
4. C13-octanoic acid breath test

A 32-y-o-patient, suffering from stomach ulcer for last 5 years. Takes ranitidine periodically to decrease pain. Pain increased, became constant and resistant to medication approximately 1

week. The abdomen is painful in epigastric area, moderate defense in pyloroduodenal area is detected. What complication worsened the patient's state?

1. Perforation
2. Stenosis
3. Penetration
4. Malignization

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?

1. Chronic pancreatitis
2. Chronic cholecystitis
3. Stomach ulcer
4. Duodenal ulcer

A 23-year-old patient complains of a dull pain, 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 to put a diagnosis?

1. Esophagogastroduodenoscopy
2. X-ray of abdomen
3. pH-metry
4. Abdominal ultrasound

The 51-y-o patient C, complains heaviness in the left rib arch and weakness. Is ill from 40-years of age, when for the first time there was jaundice. Investigation: skin and visible mucous is icteric. On the skin of anterior surface of thorax "vascular stars". The abdomen is enlarged, "caput medusa" and extrusion of umbilicus is observed. Ascites is noticed. The edge of liver is sharp, painless, on 3 cm below costal arch, the spleen is considerably enlarged, painless in palpation. Endoscopy reveals varicose dilation of esophageal veins. What drug are recommended to control portal hypertension in this case:

1. Losartan
2. Propranolol
3. Enalapril
4. Domperidone

A 42-y-o-patient suffering from alcoholic liver cirrhosis with ascites. He is hospitalized for agitation and bizarre behavior. Examination reveals asterixis on the hands, ankle clonus, and spider angiomas on the face and chest. Blood ammonia level is twice its baseline. Predisposing factors for hepatic encephalopathy are following EXCEPT:

1. Insufficient protein ingestion
2. Bleeding esophageal
3. Excessive diuretic therapy
4. Noncompliance with lactulose therapy

A 57-y-o-patient suffering from viral liver cirrhosis with ascites. He is hospitalized for agitation and bizarre behavior. Examination reveals asterixis on the hands, ankle clonus, and spider

angiomas on the face and chest. Blood ammonia level is twice its baseline. What medications are effective to control patient's condition?

1. Furosemide + albumin
2. Spironolactone + propranolol
3. FFP + nitroglycerine
4. Lactulose + rifaximin

A patient with alcoholic liver cirrhosis drank some spirits that resulted in headache, vomiting, aversion to food, insomnia, jaundice, fetor hepaticus, abdominal swelling. The general analysis of blood: Hb - 90 g/l, leu. - $3,0 \cdot 10^9/l$, thromb. - $90 \times 10^9/g$. What complication of liver cirrhosis made patients status worse?

1. Hepatocellular insufficiency
2. Spontaneous bacterial peritonitis
3. Hemorrhage from esophageal varicose veins
4. Portal hypertension

A 47-y-o-patient with alcoholic liver cirrhosis with continuous alcohol abuse complains with headache, aversion to food, insomnia, itching, jaundice, abdominal swelling. The general analysis of blood: Hb - 90 g/l, leu. - $3,0 \cdot 10^9/l$, thromb. - $90 \times 10^9/g$. total bilirubin 130 mmol/l, direct - 90 mmol/l, AST 3,3 mmol/l, ALT - 2,8 mmol/l, alkaline phosphatase 4,6 mmol/l. What additional laboratory markers should be detected to establish the severity of liver insufficiency by Child-Turcotte-Pugh scoring system?

1. INR + cholesterol
2. Albumin + γ -glutamyltransferase
3. INR + albumin
4. Ammonium + PT

Patient C aged 47 years complains of intensive skin itching, jaundice, bone pain. The skin is hyperpigmented. There is multiple xanthelasma palpebra. The liver is +6 cm enlarged. The blood analysis revealed total bilirubin 160 mkmol/l, direct - 110 mkmol/l, AST 2,1 mmol/l per hour, ALT - 1.8 mmol/l, alkaline phosphatase 4,6 mmol/l per hour, cholesterol - 9,2 mmol/l, high antimitochondrial antibodies titer. What is the probable diagnosis?

1. Primary Biliary Cholangitis
2. Primary liver cancer
3. Chronic viral hepatitis B
4. Acute viral hepatitis B

A 60-y-o-woman, mother of 6 children, developed sudden onset of upper abdominal pain radiating to the back, associated with 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 38.1C, along with right upper quadrant tenderness. Most likely diagnosis:

1. Benign biliary stricture
2. Choledocholithiasis
3. Malignant biliary stricture
4. Carcinoma of the head of the pancreas

Patient L., 38 years. Complaints about dull, aching pains in area of right hypochondria, permanent or arising up in 1-3 hours after fat food and fried dishes. Pain radiates upwards, in the region of right shoulder and neck. In addition, often disturbs feeling of bitter taste in the mouth, belch with air, flatulence. At palpation of abdomen tenderness in area of projection of gall

bladder. A liver is not enlarged, a spleen not palpate. Chronic cholecystitis is established. What is the most often etiological agent of this disease?

1. Viral infection
2. Helminths invasion
3. Bacterial infection
4. Food intolerance

A 63-year-old patient has been suffering from chronic pancreatitis for 15 years. During the last 5 years he has 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. What laboratory test should be done to establish severity of exocrine pancreatic insufficiency?

1. Serum amylase
2. Serum elastase
3. Urine amylase
4. Fecal elastase

A 75-y-o-man was found to be jaundiced. He was asymptomatic except for weight loss of 10 pounds in 6 months. On physical examination he is found to have a nontender, globular, right upper quadrant mass that moves with respiration. A CT scan shows enlargement of the head of the pancreas, with no filling defects in the liver. Most likely diagnosis:

1. Acute leukemia
2. Adenocarcinoma of the head of the pancreas
3. Liver echinococcosis
4. Crohn's disease

A 33-year-old male presents with stomach pain, which relieves with defecation, is accompanied with a feeling of abdominal winds, incomplete evacuation or urgent need for bowel movement, constipation or diarrhea. These symptoms have been lasting for over 3 months. No changes in laboratory tests. What is the most likely diagnosis?

1. Celiac disease
2. Autoimmune gastritis
3. Irritable bowel syndrome
4. Whipple's disease

A 20- year old woman with 3-4 months history of bloody diarrhea, stool examination negative for a ova and parasites, stool culture negative for Clostridium, Campylobacter and Yersinia, normal bowel series. Edema, hyperemia and ulceration of rectum and sigmoid colon seen on sigmoidoscopic examination. What is he most likely diagnosis?

1. Celiac disease
2. Crohn's disease
3. Ulcerative colitis
4. Lactose intolerance

The patient of 43 years, complaints on bad appetite, nausea, heaviness in the right hypochondrium, weakness, rapid fatiguability. 10 years ago,viral hepatitis type C was diagnosed.The abdomen is enlarged, “caput medusae”, ascites is observed. The liver is enlarged. Splenomegaly. Chronic viral C cirrhosis is established. The possible complications of liver cirrhosis are, EXCEPT?

1. Budd–Chiari syndrome
2. Hepatocellular carcinoma
3. Spontaneous bacterial peritonitis
4. Hepatorenal syndrome

A 30-y-o-man complains of epigastric pain, nausea which appear in 1,5-2 hours after meal, periodical heartburn and constipation. He is ill for 2 years with exacerbation in spring time. On palpation there are moderate tenderness and increased sensitivity in pyloroduodenal area. He was treated by amoxicillin and omeprazole last year. EGDS shows antral gastritis, pH-metry 1,2, CLO-test +++. What is the most effective anti-Hp treatment in this case?

1. Esomeprazole + Amoxicillin + Clarithromycin
2. Rabeprazole + Amoxicillin + Metronidazole
3. Esomeprazole + Tetracycline + Bismuth+ Metronidazole
4. Pantoprazole + Clarithromycin + Bismuth

A 45 y.o. man complains of dull pain in epigastric and right subcostal area, which disappear after meal, “night” pain, nausea, heartburn. From anamnesis it was established that he had been treated 2 years ago in gastroenterological department with ulcer bleeding. Endoscopy showed ulcerative defect and erosions in duodenal bulbus. What test should be done after eradication treatment?

1. Rapid urease test
2. ¹³C-urease breath test
3. Bacterial culture
4. Stool antigen test

A 48-year-old man presents with arthralgia, abdominal pain, diarrhea, progressive weight loss, low-grade fever, confusion, memory loss and ophthalmoplegia. Investigation reveal steatorrhea, impaired xylose absorption, abnormal small- bowel X rays, hypoalbuminemia and anemia. The mostly likely diagnosis is:

1. Whipple s disease
2. Coeliac disease
3. Inflammatory bowel disease
4. Tropical sprue

A 45-y-o-woman complains of periodical dull pain in right hypochondrium after fatty meal, nausea, better taste in the mouth, constipation. On physical examination obesity, palpation in the right subcostal area was painless. In US-scan of abdomen 3 small (<20 mm) stones were determined. What medications should be recommended to this patient?

1. Rabeprazole + lactulose
2. Mebeverine +Ursodeoxycholic acid
3. Mesalamine + Drotaverine
4. Sucralfate + Bismuth

A 42-years old woman is evaluated for an 8-months history of crampy abdominal pain and three loose bowel movement per day. The pain is relieved by a bowel movement. There are no nocturnal bowel movements, and there is no blood or dark tarry material in the stool. She has not had fever, night sweats or weight loss. She has a history of Hashimoto disease and is treated with levothyroxine. Which of the following is most appropriate next step in management?

1. Breath test for bacterial overgrowth
2. Colonoscopy with random biopsies
3. Stool culture
4. Tissue transglutaminase antibody testing

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, subfebrile fever. She has a 1-year history of non-specific ulcerative colitis and intake of mesalamine for last 3 months. What group of drugs should be preferred for this patient?

1. Corticosteroids
2. Anti-TNF drugs
3. Fluoroquinolones
4. Probiotics

A 75 y.o. man with IHD, atrial fibrillation, congestive heart failure and chronic pyelonephritis was prescribed digoxin in dose 0,25 mg twice per day. In 6 days dyspnea, edema and cyanosis are decreased, but on the 7-th day nausea and bradycardia developed. What is the most probable cause of digoxin intoxication?

1. Overdose
2. Treatment doesn't include unithiol
3. Too long intake of initial dose
4. Disturbed digoxin elimination by the kidneys
5. Disturbed digoxin metabolism in the liver

A 40 y.o. patient with rheumatic heart disease complains of anorexia, weakness and loss of weight, breathlessness and edema of feet. The patient had tooth extraction one month ago. On examination: t° - 39°C, Ps- 100/min. Auscultation: diastolic murmur in the mitral area. Petechial lesion around the clavicle; spleen was palpable.

1. Recurrence of rheumatic fever
2. Subacute bacteria endocarditis
3. Mitral stenosis
4. Aortic stenosis
5. Thrombocytopenia purpura

A 58 y.o. patient developed acute myocardium infarction 4 hours ago, now he is in the resuscitation department. ECG registers short paroxysms of ventricular tachycardia. The most appropriate treatment include:

1. Propafenone
2. Amiodarone
3. Flecainide
4. Lidocaine
5. Verapamil

A 39 y.o. patient complains of dyspnea during physical activity, crur edema, palpitation. Objectively: HR is 150 bpm, atrial fibrillation. Heart is both ways enlarged. Decrease heart sounds. Liver is 6 cm below the costal margin. Echocardiogram reveals dilatation of heart chambers (end diastolic volume of left ventricle is 6,8 cm), EF 29%, valve apparatus is unchanged. What is the most probable diagnosis?

1. Exudative pericarditis
2. Dilated cardiomyopathy
3. Restrictive cardiomyopathy
4. Hypertrophic cardiomyopathy
5. Thyreotoxic cardiomyopathy

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?

1. β -adrenoceptor blockers
2. α -adrenoceptor blockers
3. Central sympatholytics
4. Thiazide diuretics
5. Loop diuretics

A 42 y.o. woman complains of dyspnea, edema of the legs, and tachycardia during small physical exertion. Heart borders are displaced to the left and SI is accentuated, there is diastolic murmur on apex. The liver is enlarged by 5 cm. What is the cause of heart failure?

1. Aortic stenosis
2. Mitral stenosis
3. Tricuspid stenosis
4. Mitral regurgitation
5. Tricuspid regurgitation

A patient who takes diuretics has developed premature ventricular contractions as a result of cardiac glycoside overdose. What is the treatment tactics in this case?

1. Increased calcium level in blood
2. Increased potassium concentration in blood
3. Reduced magnesium concentration in blood
4. Increased sodium concentration in blood

A healthy 75 y.o. 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 mmol/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?

1. Decrease of saturated fats consumption
2. Increase of cellulose consumption
3. Decrease of cholesterol consumption
4. Decrease of carbohydrates consumption
5. All above dietary changes are necessary

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; decreased, periodically intensified SI. BP is 180/90 mm Hg. What is the most probable cause of hemodynamic disturbances?

1. Bradysystolic form of atrial fibrillation
2. Complete left bundle branch block
3. Atrioventricular block type I
4. Atrioventricular block type III
5. Sinus bradycardia

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 during 1 year. On examination: heart borders are enlargement to the left side, sounds are muffled, Ps- 76 bpm, rhythmic, BP- 155/80 mm Hg, ECG: left type, rest signs are normal. What additional examination is necessary to confirm the diagnosis?

1. Echocardiography
2. Transaminases of blood
3. Bicycle ergometry

4. General blood count
5. Lipoprotein test

A 38 y.o. woman suffers from paroxysmal BP rises up to 240/120 mm Hg accompanied by nausea, vomiting, tachycardia, excessive sweating. During the paroxysm blood is hyperglycemic. After the paroxysm there is voluminous urination. Kidneys sonography revealed accessory mass bordering upon the upper pole of the right kidney, presumably it belongs to the adrenal gland.

What laboratory test will allow to make a diagnosis?

1. Estimation of plasma thyroxin and thyroid stimulating hormone
2. Estimation of plasma insulin and C-peptide
3. Estimation of catecholamine and vanillylmandelic acid excretion in urine
4. Estimation of plasma renin
5. Estimation of glomerular filtration rate

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?

1. Angina pectoris of a new onset
2. Ridicular syndrome
3. Unstable angina pectoris
4. Myocarditis
5. Stable angina pectoris of the III functional class

A 50 year old woman complains about dull cardiac pain, asphyxia, body temperature rise up to 38°C. She had flu a week ago. Objectively: Ps -100 bpm, dropped-beat pulse during inspiration. BP - 100/70 mm Hg, heart sounds are muffled. ECG: reduced voltage, ST segment is above the isoline in all leads. X-ray shows extensively enlarged cardiac silhouette. What is the most probable diagnosis?

1. Myocarditis
2. Dilated cardiomyopathy
3. Exudative pericarditis
4. Angina pectoris
5. Myocardial infarction

Adenosine triphosphate may be expected to convert which of the following arrhythmias to sinus rhythm?

1. Paroxysmal supraventricular tachycardia
2. Paroxysmal ventricular tachycardia
3. Atrial fibrillation
4. Atrial flutter
5. Ventricular fibrillation

A 56 year old man complains of fatigue, dyspnea on exertion and palpitations. He has had a murmur since childhood. Examination reveals left sternal border distend to the left, split S1, and fixed splitting of S2. There is a grade 3/6 midsystolic pulmonic murmur and a 1/6 middiastolic tricuspid murmur at the lower left sternal border. Chest x-ray shows right ventricular enlargement and prominent pulmonary arteries. ECG demonstrates atrial fibrillation with a right bundle branch block. The most probable diagnosis is:

1. Coarctation of the aorta
2. Ventricular septal defect
3. Arterial septal defect
4. Tetralogy of Fallot

5. Patent ductus arteriosus

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, BP is 190/100 mm Hg (haemodynamics is of hyperkinetic type). What medication should be the medication of choice?

1. β -adrenoceptor blocker
2. Adenosine pyrophosphate inhibitor
3. Diuretic
4. Dihydropyridine calcium antagonist
5. α -adrenoceptor blocker

A 15 year old patient suffers from headache, nasal haemorrhages, sense of lower extremity coldness. Objectively: muscles of shoulder girdle are developed, lower extremities are hypotrophied. Pulsation on the pedal and femoral arteries is increased. BP is 150/90 mm Hg, 90/60 on the legs. Systolic murmur can be auscultated above carotid arteries. What is the most probable diagnosis?

1. Aortal insufficiency
2. Aorta aneurism
3. Aortal stenosis
4. Aorta coarctation
5. Coarctation of pulmonary artery

A 30 year old woman ill with flu 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?

1. Neurocirculatory dystonia
2. Idiopathic myocarditis
3. Acute allergic myocarditis
4. Acute viral myocarditis.
5. Myocardiopathy

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:

1. Hyperthyroidism
2. Coronary artery disease
3. Amyloidosis
4. Pericardial effusion
5. Cardiac transplant rejection

A 55 year old patient felt suddenly sick in a hospital corridor, he was immediately examined by a doctor. Examination revealed that the patient's skin was pale, autonomous respiration was absent, pulse on carotid arteries couldn't be felt, pupils were mydriatic. What action should be taken at the beginning of cardiac resuscitation?

1. Precordial thump
2. Mouth-to-mouth ventilation
3. Closed-chest cardiac massage
4. Restoration of airway patency
5. Defibrillation

A 67-y.o. male patient with myocardial infarction on the 13th day complains of pains in the chest, dyspnea. On exam: t - 38.2°C, pulse - 112/min, BR - 26/min, small-bubble rales below right scapula. In 2 days right-sided exudative pleurisy was diagnosed. CBC: Leu – $8.9 \times 10^9/L$, eos- 8 %. ESR- 24 mm/hr. What complication occurred?

1. Cardiac asthma
2. Pneumonia
3. Recurrent myocardial infarction
4. Dressler's syndrome
5. Pulmonary thromboembolism

A 54-y.o. male patient complains of acute pain in the chest after heavy exertion. Pain is localized in the central part of the chest without radiation, increases with movements. History: hypertension, patient takes ACE inhibitors. On exam: pulse - 115/min, BR - 22/min. On ECG: sinus tachycardia. On chest X-ray: increase in the size of the main cardiac vessels shadows. What is the most probable diagnosis?

1. Hiatal hernia
2. Myocarditis
3. Aortic aneurysm dissection
4. Non-ST elevation acute myocardial infarction
5. Acute pericarditis

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. There are medium bilateral moist rales in the lower parts of lungs. Body temperature 36,4°C. What drug should be given in the first place?

1. Aminophylline
2. Dopamine
3. Promedol
4. Digoxin
5. Heparin

A patient 54 years old, admitted in hospital with intensive and tremendous retrosternal pain without radiation, pain lasted for 40 minutes, no changes were observed after taking nitroglycerin. Objectively : pale face, sweating, hypotonia (pulse rate 108/min), "gallop" rhythm. ECG: elevation of ST to 6 mm at III and AVF leads. Read the above given information and select the correct diagnose from the following:

1. Alanine aminotransferase
2. Aspartate aminotransferase
3. Lactactdehydrogenase
4. Troponin I and T.
5. Alkaline phosphatase

A 17-y.o. male patient complains of palpitation, which has been lasting for 10 min. On exam: heart borders are normal, HR - 200/min, BP - 135/75 mm Hg. On ECG: R-R intervals are regular, HR - 196/min, QRS- 0.09 sec. What kind of treatment should be done first of all?

1. No treatment, monitoring
2. Vagal maneuvers
3. Beta-blocker
4. Procainamide
5. Electrical cardioversion

Patient, 55 year-old, suffered from dilated cardiomyopathy, at night has sudden attack of severe palpitation. During investigation, patient's condition is of moderate severity, pale skin, acrocyanosis. BP- 90/60 mmHg. ECG: heart rate – 160/min. QRS complex widened and deformed (QRS = 0,12 s). There is disassociation in activities of atria and ventricles. What disturbance of heart rhythm can be found in this patient?

1. Fibrillation arrhythmia
2. Paroxysmal supraventricular tachycardia
3. Paroxysmal ventricular tachycardia
4. Paroxysmal tachycardia from atrial-ventricular connection
5. Ventricular extrasystoles

In patient, 36 y.o., with preexcitation (WPW) syndrome, a palpitation, dyspnoea at rest and cough suddenly appeared. Objectively: orthopnea, acrocyanosis. Pulse 200/min., thread-like. BP 70/40 mmHg. Heart sounds are rhythmic, tachycardia. Rales are revealed over the lower parts of lungs in both sides. ECG: atrial flutter 2:1 with HR 200/min. Name the top-priority treatment.

1. Amiodarone
2. Electrical cardioversion
3. Digoxin
4. Transesophageal electrostimulation
5. Verapamil