

## **Test base for intermediate certification in the discipline "Faculty Therapy" (70% of the tasks are presented - 390/557tasks)**

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 glutaminopyruvate 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 hyperpigmentated. There are multiple xanthelasma palpebrae. The liver is +6 cm enlarged, solid with acute edge. The blood analysis revealed total bilirubin - 160 mkmol/L, direct - 110 mkmol/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 intense pain in the epigastric area. Anamnesis: peptic ulcer disease of the duodenum for 10 years. On exam: abdominal wall is strained, very intense 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 intense pain in the abdomen. On exam: pulse - 112/min, irregular, BP - 110/70 mm Hg, the abdominal wall is strained, very intense 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 intense 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

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  $\alpha$ -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 pains in the right hypochondrium associated with fatty meals, nausea, and flatulence. On exam:  $t^{\circ}$  - 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. Lidocainei.v.
2. Furosemedi.v.
3. Calcium chloride solutioni.v.
4. D.Physiologic NaCl solution i.v.
5. KCl solution i.v.

A 38 year old woman was hospitalized to the surgical unit with acute abdominal pain irradiating to the spine and vomiting. On laparocentesis hemmorhagic 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 signs of parenchymatous jaundice and portal hypertension. On histological examination of liver biopsate 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 hepatitis
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 - 3,5.10<sup>12</sup>/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 itch of 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 complaints 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. Verdoglobin
3. Unconjugated bilirubin
4. Biliverdin
5. Connected with albumin

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 pneumonia 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, holecistolithiasis, 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. Similiar 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. Hormonoproductive ovary tumor
3. Werlhof's disease
4. Noncomplete spontaneous abortion
5. Juvenile bleeding, posthemorrhagic anemia

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. 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/ $\mu$ L, and platelet count is 30,000/ $\mu$ 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- 10<sup>12</sup>/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

A patient 64 years old within has had essential hypertension for 14 years. Inspection revealed that heart rate was 84 per min, blood pressure - 170/110 mm Hg, glucose – 7,2 mmol/l, cholesterol - 8,2 mmol/l. What diuretics do you recommend this patient?

1. Indapamide
2. Hydrochlorothiazide
3. Furosemide
4. Clopamide

## 5.Enalapril

The patient 54-years-old had myocardial infarction one year ago. Now he complains of dyspnea, attacks of retrosternal pain during physical activity and intermission in work of heart. Inspection revealed that heart rate was 90 per min, blood pressure - 180/90 mm Hg. ECG revealed supraventricular extrasystole, hypertrophy of the left ventricle and Q wave in V1-V3. Choose the most effective treatment.

1.Metoprolol

2.Corinfar

3.Hydrochlorothiazide

4.Enalapril

5.Furosemide

A man 52 years old complains of attacks of headache, dizziness, palpitation, muscular weakness and numbness of extremities. In anamnesis, he has had COPD. Inspection revealed heart rate was 80 per min, blood pressure- 270/160 mm Hg, heart sounds – rhythmical and accent of the second sound above aorta. What kind of treatment do you recommend?

1.Indapamide

2.Clonidine

3.Propranolol

4.Furosemide

5.Lasix

The man 68 years old has essential hypertension II stage. He constantly takes enalapril 10 mg per a day. Inspection revealed that pulse was 68 per minute, muted tones of heart, accent of the second sound above aorta. Echocardiography showed hypertrophy of the left ventricle. During last time efficiency of treatment decreased. Blood pressure is not decreased below 160/110 mm Hg. What do you add to treatment?

1.Diuretics

2.Beta-blockers

3.Alpha-blockers

4.Angiotensin inhibitors

5.Calcium channel blockers

A woman 52 years old complains of periodic headaches, rare dizziness and palpitation. Blood pressure increases within the limits of 160 - 180/95 - 105 mm Hg. Define the type of arterial hypertension.

- 1.Mild
- 2.Moderate
- 3.Severe
- 4.Very severe
- 5.Isolated systolic

A woman, 40 years, complains of attacks increased arterial pressure, accompanied with sensation of fear, shiver, and palpitation. Prescription of antihypertensive medicines does not reduce of increased arterial pressure. What is diagnosis?

- 1.Pheochromocytoma
- 2.Con's syndrome
- 3.Cushing's syndrome
- 4.Hypertension stroke
- 5.None of them

What group of medicines is not used for treatment of essential hypertension in the first place?

1. Ganglionic blocker
- 2.Angiotensin inhibitors
- 3.Alpha-blockers
- 4.Diuretics
- 5.Calcium channel blockers

The patient 54 years complains of headache in nape, feeling of heaviness in head. Within a year blood pressure was increased to 150/100 mm hg. During last four years he has diabetes mellitus and takes glibenclamid. Inspection revealed that heart rate was 78 per min, blood pressure - 150/100 mm Hg. How could you start to treat this patient?

- 1.Angiotensin enzyme inhibitor
- 2.Beta-blockers
- 3.Alpha-blockers
- 4.Diuretics

5. None of them

A man 50 years old suddenly began having severe palpitation, pain in the heart, sharp weakness, high blood pressure, arrhythmic pulse, with deficiency. The ECG revealed no P waves and different duration of R-R intervals. What disorder of rhythm has patient had?

1. Atrial fibrillation
2. Extrasystole
3. AV block
4. Paroxysmal tachycardia
5. Respiratory arrhythmia

All judgements are right, except for:

1. Cholesterin promotes development of hepatitis
2. Cholesterin is a component of cellular membranes
3. Cholesterin is the precursor of cholic acids
4. Cholesterin is the precursor of steroid Hormonums
5. Cholesterin has influence on development IHD

48-year-old patient is admitted to the hospital with attack of retrosternal pain during four hours. Diagnosis is myocardial infarction of anterior wall left ventricular with Q wave. Choose pathogenic treatment?

1. Thrombolytic therapy
2. Nitrates
3. Analgesics
4. Antiarrhythmical drugs
5. Anticoagulants

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 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

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 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 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 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 \* 10<sup>9</sup>/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 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.

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 2<sup>nd</sup> 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, S<sub>3</sub> 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. Subarachnoid hemorrhage is suspected. What investigation is the most useful for diagnosis?

1. Lumbar puncture
2. Doppler ultrasonography
3. Electroencephalography
4. Eye funduscopy
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 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 T<sub>4</sub> 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 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.  $\beta$ -blocker
2.  $\alpha$ -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.

Your patient, a 46-year-old man, complains of rapid fatigability, 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 mmol/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/l. Blood analysis: disproteinemia in form of hypoalbuminemia, raise of  $\alpha_2$  and  $\gamma$ -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 excretion 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. Hypertension 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.<sup>0</sup>C, 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- 4,7.10<sup>12</sup>/L, Hb 148 g/l, L- 8,6.10<sup>9</sup>/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

A 39-year-old patient complains of morning headache, appetite loss, nausea, morning vomiting, periodic nasal haemorrhages. The patient had a case of acute glomerulonephritis at the age of 15. Examination revealed rise of arterial pressure up to 220/130 mm Hg, skin haemorrhages on his arms and legs, pallor of skin and mucous membranes. What biochemical parameter is most important for making diagnosis in this case?

1. Blood creatinine
2. Blood bilirubin
3. Blood sodium
4. Uric acid
5. Fibrinogen

What changes, in the first place, are caused by the activation of infection in the biliary tract:

1. violation of the outflow of bile
2. change in the cholesterol coefficient
3. shift of pH of bile to the acid side
4. increased bilirubin in bile
5. increased cholesterol in bile

All except for:

1. Ortner's symptom
2. phrenicus symptom
3. Murphy symptom
4. Porges symptom
5. Kera symptom

The gall bladder contracts under the influence of:

1. gastrin
2. pancreatic juice
3. cholecystokinin
4. secretion
5. hydrochloric acid

The main pathogenetic links in the development of enzymatic cholecystitis include everything except:

1. pancreatic vesicle reflux
2. stasis of bile
3. change in the ratio of pressure in the pancreatic and common bile duct
4. infection

For the treatment of giardiasis with lesions of the biliary tract, use:

1. chloramphenicol
2. furazolidone
3. kanamycin
4. nevigramon
5. enteroseptol

As anti-inflammatory therapy for cholecystitis, they are often used:

1. broad-spectrum antibacterial drugs (cephalosporins, macrolides);
2. preparations of the furadonin series;
3. nalidixic acid preparations;
4. sulfa drugs;
5. aminoglycosides.

If you suspect a chronic calculous cholecystitis, in order to clarify the diagnosis, it is necessary to carry out:

1. duodenal sounding
2. intravenous cholangiography
3. survey radiography of the abdominal cavity
4. laparoscopy

## 5. Endoscopy

For the recognition of subhepatic (mechanical) jaundice of the above diagnostic methods, the most important is:

1. oral cholecystography;
2. intravenous cholegraphy;
3. liver scintigraphy;
4. retrograde pancreatocholangiography;
5. direct splenoportography.

Chenodeoxycholic acid is used to:

1. dissolution of cholesterol stones in the gallbladder;
2. lowering serum cholesterol;
3. improving the utilization of fat in the intestines;
4. improving the utilization of carbohydrates in the intestines;
5. increase the tone of the gallbladder.

Which drug does not cause the formation of biliary sludge:

1. ceftriaxone;
2. enalapril;
3. clofibrate;
4. sandostatin.
5. estrogens

Common consequences of chronic pancreatitis are:

1. Exocrine pancreatic insufficiency
2. Endocrine pancreatic insufficiency
3. Pseudocysts

4. Peritonitis
5. Ascites

The activity of trypsin in blood serum increases with:

1. peritonitis;
2. acute and chronic pancreatitis;
3. peptic ulcer;
4. acute and chronic cholecystitis.
5. hepatitis

Endoscopic retrograde cholangiopancreatography has the ability to establish everything except:

1. stones in the biliary tract
2. stones in the pancreatic ducts
3. decipher the pathology of the duodenal papilla
4. diagnose cholangitis
5. diagnose chronic hepatitis

Indicate pancreatic enzyme inhibitor:

1. Pancreatin
2. Glucocorticoids
3. Creon
4. Acetylsalicylic acid
5. Aminocaproic acid

What pancreatic cells do glucagon produce:

1. cells of the kallikrein system
2. cells of epithelial glandular tissue
3.  $\alpha$  - cells
4.  $\beta$  - cells
5.  $\Delta$  - cells

With penetration of an ulcer into the pancreas in the blood increases:

1. amylase activity;
2. lipase activity;
3. glucose level;
- 4 alkaline phosphatase activity;
5. transaminase activity.

At the patient 35years, attacks of a dyspnea are marked infrequent (less than 1 time a week) which are effectively stopped by an inhalation of short action beta2 agonists. During attack dry rales are auscultated. In intervals between attacks of dyspnea  $FEV_1$  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. FEV<sub>1</sub> 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, 22 years old, complains 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, 72 years 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, complains 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

FEV<sub>1</sub>/FVC ratio is decreased in all except

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

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

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 VO<sub>2</sub>.
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. FEV<sub>1</sub> 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

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, PCO<sub>2</sub> of 40 mm Hg, PO<sub>2</sub> of 65 mm Hg. Spirometry shows a FEV<sub>1</sub>/ 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

A 10-year-old boy with symptoms of arthritis and myocarditis was delivered into a hospital. Based on clinical examination the preliminary diagnosis of juvenile rheumatoid arthritis was made. What symptom is the most contributive for the diagnostics of this disease?

1. Enlarged heart
2. Regional hyperemia of the joints
3. Affection of the large joints
4. Reduced mobility of the joints in the morning
5. Increased heart rate

A 46-year-old man notes swollen legs, weakness, sensation of fullness and heaviness in the right subcostal area; it is the first occurrence of these signs in the patient. The patient has 20-year-long history of rheumatoid arthritis. The liver and spleen are enlarged and dense. Blood creatinine - 0,23 mmol/l, proteinemia - 68 g/l, cholesterol - 4,2 mmol/l, urine specific gravity - 1012, proteinuria - 3,3 g/l, isolated wax-like cylinders, leached erythrocytes in the vision field, leukocytes - 5-6 in the vision field. What is the most likely complication?

1. Chronic pyelonephritis
2. Chronic glomerulonephritis
3. Acute glomerulonephritis
4. Heart failure
5. Renal amyloidosis

An 11-year-old boy complains of general weakness, fever up to 38, 2oC, 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 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

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 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 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

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  $38,5^{\circ}\text{C}$  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 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)

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 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 cardiotrophic drugs twice a year
3. Year-round bicillin prophylaxis for 3 years
4. Tonsillectomy
5. Oral cavity sanitation

A 25-year-old man is brought to the physician because of fatigue, lethargy and lower leg swelling for 2 weeks. He also noticed that his urine appeared darker than usual and for the last 2 days he has passed only small amounts of urine. His temperature is 37.8°C, pulse is 88/min, respirations are 15/min and blood pressure is 157/94 mm Hg. Examination shows pretibial edema bilaterally. Laboratory test: Hb- 107 g/l; Leuk – 9,2x10<sup>9</sup>; Platelet- 250x10<sup>9</sup>; Na<sup>+</sup> 137mEq/L; Cl<sup>-</sup> 102 mEq/L; K<sup>+</sup> 4,6 mEq/L; HCO<sub>3</sub> 22 mEq/L; glucose 7,8 mmol/L; urea nitrogen 34 mg/dL; creatinine 1.4mg/dL. Urine-test: blood+++; protein +++; glucose negative; RBC 12-15/HPF with dysmorphic features; RBC casts numerous. Renal biopsy specimen shows a crescent formation in the glomeruli with extracapillary cell proliferation. Which of the following is the most appropriate next step inmanagement?

1. Administer rituximab
2. Administer lisinopril
3. Perform hemodialysis.

4. Perform plasmapheresis
5. Administer methylprednisolone

A 21-year-old woman comes to the physician because of 1-day of nausea and weakness. She has no history of serious illness. She is sexually active with 2 male partners and uses an oral contraceptive. Her last menstrual period was 4 days ago. Her temperature is 38.8°C, pulse is 98/min, respirations are 19/min and blood pressure is 115/74 mm Hg. Physical examination shows right costovertebral angle tenderness. The abdomen is soft and nontender. Cardiopulmonary examination shows no abnormalities. Laboratory studies show: Hb- 137 g/l; Leuk – 14,2x10<sup>9</sup>; Platelet- 235x10<sup>9</sup>; glucose 4,8 mmol/L; urea nitrogen 18 mg/dL; creatinine 0.8mg/dL; C-reactive protein 16.4 mg/L (N=0.08-3.1). Which of the following is the most appropriate next step in management?

1. Urinalysis
2. Cervical swab
3. Oral cotrimoxazole therapy
4. Abdominal ultrasound
5. Blood culture

A 48-year-old woman comes to the physician because of a 3-month history of worsening fatigue, loss of appetite, itching of the skin, and progressive leg swelling. Although she has been drinking 2-3 L of water daily, she has been passing only small amounts of urine. She has type 1 diabetes mellitus, chronic kidney disease, hypertension and diabetic polyneuropathy. Her current medications include insulin, torasemide, lisinopril and synthetic erythropoietin. Her temperature is 36.4°C, pulse is 90/min, respirations are 19/min and blood pressure is 145/87 mm Hg. She appears pale. There is ++ pitting edema in the lower extremities. Sensation to pinprick and light touch is decreased over the feet and legs bilaterally. Laboratory test: Hb- 112 g/l; Leuk – 6,7x10<sup>9</sup>; Platelet- 280x10<sup>9</sup>; Na<sup>+</sup> 137mEq/L; Cl<sup>-</sup> 100 mEq/L; K<sup>+</sup> 5,3 mEq/L; HCO<sub>3</sub> 20 mEq/L; glucose 7,8 mmol/L; urea nitrogen 87 mg/dL; creatinine 9 mg/dL; pH 7,25. Which of the following long-term treatments would best improve quality of life and maximize survival in this patient?

1. Hemofiltration
2. Peritoneal dialysis
3. Hemodialysis
4. Living donor kidney transplant
5. Fluid restriction

A 23-year-old woman complains of an increase in body temperature up to 37.4 ° C, the appearance of a hemorrhagic rash on the lower extremities, lower back pain, red color of urine. She got sick 3 days ago after hypothermia. Objectively: the skin is pale, on the surface of the legs and hips - a small hemorrhagic symmetrical rash. Heart rate - 90 / min., blood pressure - 115/90 mm Hg, Pasternatsky symptom is weakly positive on both sides. In the blood: white blood cells - 9.6 \* 10<sup>9</sup> / l, platelets -180 \* 10<sup>9</sup> / l, erythrocyte sedimentation rate - 31 mm / hour. In urine: protein - 0.33 g / l, RBS with dysmorphic features - 3-40 in field of vision, white blood cells - 5-8 in field of vision. Which of the following drugs is pathogenetically determined for treatment in this case?

1. Heparin

2. Calcium gluconate
3. Ascorbic acid
4. Vicasol
5. Ciprofloxacin

A 46-year-old patient first noticed swelling in his legs, weakness, feeling "fullness" and heaviness in the right hypochondrium. 20 years suffering from rheumatoid arthritis. Liver and spleen of dense consistency were enlarged. Blood creatinine - 0.23 mmol/L, proteinemia - 68 g/L, cholesterol - 4.2 mmol/L, specific gravity of urine - 1012, proteinuria - 3.3 g / l, single waxy cylinders, erythrocytes leached in field of vision, white blood cells - 5-6 in field of vision. What is the most likely complication?

1. Heart failure
2. Chronic glomerulonephritis
3. Renal amyloidosis
4. Acute glomerulonephritis
5. Chronic pyelonephritis

A 27-year-old patient complains of weakness, increased fatigue, fever up to 38 ° C, a small amount of urine-colored "meat slops" excreted per day. Objective: pallor of the skin, swelling of the face, arms, legs, lower back pain. In the blood: RBC -  $2.7 \times 10^{12}$  / l, Hb - 90 g / l, WBC -  $14 \times 10^9$  / l, e. - 10%, Stab - 4%, S.-60%, L.- 16 %, M. - 10%, ESR - 35 mm / hour. In urine: WBC -15 in field of vision, RBC-30 in field of vision, hyaline cylinders - 8-10 in field of vision, protein - 4 g / l. Blood cholesterol - 8 mmol/l, total protein - 43 g/l. What is the leading mechanism for the development of edema?

1. Violation of cardiac activity
2. Decrease in oncotic pressure of blood
3. Diselectrolyte disturbances
4. Hyperaldosteronism
5. Reduction of osmotic blood pressure

In a 24-year-old man with exacerbation of secondary obstructive pyelonephritis, *Pseudomonas aeruginosa* in the titer of  $1.0 \times 10^6$  microbial bodies per 1 ml was isolated from urine. What antibacterial drug is most appropriate in this case?

1. Ampicillin

- 2.Cefazolin
- 3.Asithromycin
- 4.Ciprofloxacin
5. Levomycesin

In a 32-year-old patient, against the background of chronic renal failure, anemic syndrome continues to progress. Specify the drug of choice for the pathogenetic treatment of this syndrome:

- 1.Iron tablets
- 2.Cyanocobalamin
- 3.Erythrocyte mass
4. Folic acid
5. Erythropoietin

A 33-year-old patient has acute blood loss (erythrocytes -  $2.2 \times 10^{12}$  / l, Hb - 55 g / l), blood group A (II) Rh (+). He was mistakenly transfused with donor erythrocyte mass AB (IV) Rh (+). An hour later there was a feeling of anxiety, pain in the lower back, abdomen. Pulse - 134 / min., BP-100/65 mm Hg, body temperature - 38.6 ° C. During catheterization of the bladder, 12 ml of dark brown urine was obtained. What complication has the patient?

1. Cardiac shock
- 2.Allergic reaction to donor erythrocyte mass
3. Acute renal failure
4. Citrate intoxication
5. Toxic shock

Patient K., 46 years old, was hospitalized with a diagnosis of chronic glomerulonephritis, latent form, chronic renal failure I st. After the course of treatment, clinical and laboratory remission began. What do you recommend the patient to limit in the diet for the prevention of relapse of the disease?

1. Liquid
2. Simple carbohydrates
3. Fats
4. Proteins

## 5. Salt

The duration of treatment for chronic glomerulonephritis is:

1. 2-4 weeks
2. 2-3 months
3. 4-5 months
4. 6 months
5. From 6 months to 2 years

Which of the clinical options for chronic glomerulonephritis is the most common?

1. Hematuric
2. latent
3. Nephrotic
4. Hypertonic
5. Mixed

The Nechiporenko test allows you to:

1. Determine the amount of daily proteinuria;
2. Determine the amount of glomerular filtration;
3. Determine urine creatinine concentration;
4. Determine the magnitude of leukocyturia and erythrocyturia;
5. Assess the degree of tubular reabsorption.

What morphological type of glomerulonephritis has the least favorable course:

1. "Minimal" changes of glomeruli;
2. Mesangioproliferative;
3. Focal segmental sclerosis (hyalinosis);
4. Membranous;
5. Membrane proliferative.

To identify nephrotic syndrome, the most informative definition is:

1. Daily proteinuria
2. Creatinine Level
3. Glomerular filtration rates
4. Cholesterol Level
5. LDL level

Nephrotic syndrome is characterized by:

1. Hyperproteinemia
2. Proteinuria up to 3 g / day
3. Macrohematuria
4. Hyperlipidemia
5. Proteinuria less than 1.5g / day

Diagnostic method to evaluate kidney function:

1. Kidney ultrasound
2. Sowing urine on the flora
3. Computer tomography of the kidneys
4. Kidney biopsy
5. Zimnitsky test

Chronic kidney disease is classified into stages depending on the level of:

1. Blood creatinine concentrations
2. Daily proteinuria
3. Glomerular filtration rates
4. Blood urea level
5. Concentrations of creatinine in daily urine

Morphological variant of chronic glomerulonephritis, in which no structural changes are detected by light microscopy and immunofluorescence studies?

1. Mesangiocapillary
2. Mesangioproliferative
3. Membranous
4. Glomerulonephritis with minimal glomerular changes
5. Fibroplastic

The complications of nephrotic syndrome include:

1. Brain edema
2. Infections
3. Hypovolemic shock
4. Retinal edema
5. All of the above is true.

The most accurate of the widely used formulas for calculating glomerular filtration rate:

1. BMI
2. CKD-EPI
3. Fridwald
4. Cocroft-Gault
5. Frederick

Renal arterial hypertension is characterized by:

1. The manifestation of the disease in the elderly
2. Low diastolic pressure
3. Hereditary predisposition
4. Resistance to antihypertensive therapy
5. Lack of fundus changes

The clinical manifestations of facies nephritica are:

1. Swelling of the cervical veins
2. Acrocyanosis and facial swelling
3. Odema of the face and pallor of the skin
4. Pallor of the skin and hemorrhagic rash on the face
5. Hyperemia of the cheeks and pallor of the nasolabial triangle.

Acute pyelonephritis is characterized by everything except:

1. Edema
2. The rise in temperature
3. Symptoms of intoxication
4. Pain in the lumbar region
5. Bacteriuria

A 55-year-old man complains of general weakness, decreased urination, and itchy skin. For 15 years, suffers from chronic pyelonephritis. Objectively: the skin is dry, with a yellowish tinge. Ps- 80 / min., Rhythmic, blood pressure - 100/70 mm Hg During auscultation, heart sounds are weak, the murmur of pericardial friction is heard. Blood creatinine - 1.1 mmol / l, glomerular filtration rate 5 ml / min. What treatment is indicated for the patient?

1. Diuretics
2. Hemodialysis
3. Neo-haemodesis
4. Plasmapheresis
5. Antibacterial therapy

A woman 32 years old for 5 months is concerned about pain in the lumbar region, subfebrile condition, frequent urination. In urine: moderate proteinuria, white blood cells in the entire field of view, bacteriuria. In the blood: leukocytosis, increased ESR. What is the most likely diagnosis?

1. Urolithiasis
2. Acute pyelonephritis

3. Acute glomerulonephritis
4. Chronic pyelonephritis
5. Chronic glomerulonephritis

There are \_\_\_\_\_ stages of kidney disease.

- 1.3
2. 6
3. 5
4. 4
- 5.2

Tubular damage is indicated in the patient with acute renal failure by a urinalysis finding of

1. Specific gravity fixed at 1.010
2. Hematuria
3. Urine sodium of 12 mEq/L
4. Osmolality of 100 mOsm/kg
5. Proteinuria

Which one of the following electrolytes usually must be restricted in patients with acute renal failure?

1. Calcium
2. Potassium
3. Bicarbonate
4. Chloride
5. All of the above

What is the range for the excretion rate of albumin that defines microalbuminuria?

1. 10-20 mg/day
2. 30-100 mg/day
3. 30-300 mg/day

4.300-500 mg/day

5.> 300 mg/day

Microalbuminuria is a sign of

- 1.Renal reserve.
- 2.Progressive renal disease.
- 3.Nephrotic syndrome.
- 4.Acute renal failure.
- 5.End-stage renal disease.

A patient, aged 35, complains of frequent heart-burns, air and acid eructation, burning, constringent pains behind the breast-bone, along esophagus, that appear after meals, during forward inclination of body. The patient was not examined, takes Maalox by self-medication, after the intake of which feels better. What is the most probable diagnosis?

1. Cardiospasm
2. Gastroesophageal reflux disease
3. Functional dyspepsia
4. Stomach ulcer

38-y-o-man complains of the "night "and "hungry" abdominal pains for last 3 years. Ulcer defect with a fibrinwas found on endoscopy observing bulbus of duodenum, Rapid urease test is positive. What treatment should be recommended in this case:

1. Methronidazol + Omeprazole
2. De-nol + Sucralfate + Domperidon
3. Pantoprazole + Clarithromycin + Amoxicillin
4. Mesalamine + Omeprazole

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 bulbus was revealed on esophagogastroduodenoscopy. What next study must be done?

1. Detection of autoantibodies to Hp in the serum
2. Gastrin level in blood
3. Benzidine test
4. C13-urease 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 detect a diagnosis?

1. Esophagogastroduodenoscopy
2. X-ray of abdomen
3. pH-metry
4. Abdominal ultrasound

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. Fresh frozen plasma + 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. -  $90 \cdot 10^9/g$ . What complication of liver cirrhosis made patients status worser?

1. Hepatocellular insufficiency

2. Spontaneous bacterial peritonitis
3. Hemorrhage from esophageal varicose veins
4. Portal hypertension

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, 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. Chronic cholecystitis is established. What is the most often etiological agent of this disease?

1. Viral infection
2. Helminthic 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 56-year-old patient has been suffering from chronic pancreatitis for 15 years. During the last 7 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 is the main mechanism of dyspeptic syndrome in this patient?

1. Irritable bowels syndrome
2. Exocrine pancreatic insufficiency
3. Lactose intolerance
4. Bacterial overgrowth syndrome

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. Chronic pancreatitis
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 41 y.o. woman has suffered from nonspecific ulcerative colitis for 5 years. On rectoromanoscopy: evident inflammatory process of lower intestinal parts, pseudopolyps, small superficial ulcers in colonic mucous membrane. In blood: WBC-  $9,8 \cdot 10^9/L$ , RBC-  $3,0 \cdot 10^{12}/L$ , sedimentation rate - 52 mm/hour. What medication provides pathogenetic treatment of this patient?

1. Mesalamine
2. Lactulose
3. Pancreatin
4. Domperidone

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. Hepatocellular carcinoma
2. Spontaneous bacterial peritonitis
3. Budd–Chiari syndrome
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, CLO-test +++. What is the most effective anti-Hp treatment in this case?

1. Esomeprazole + amoxicillin + clarithromycin
2. Rabeprazole + amoxicillin + metronidazole
3. Pantoprazole + clarithromycin + bismuth
4. Esomeprazole + tetracycline + bismuth+ metronidazole

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 bulb. What test should be done after eradication treatment?

1. Rapid urease test
2. Bacterial culture
3. <sup>13</sup>C-urease breath test
4. Stool antigen test

A 27-year-old man complains of pain in epigastrium which is relieved by food intake, heartburn. On palpation, there is moderate tenderness in epigastric area. EGDFS shows antral erosive gastritis, Rapid urease test presents Helicobacter Pylori. What can be diagnosed in this case?

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

What studies are most informative for diagnostic acute rheumatic fever?

1. Lupus cells
2. Rheumatoid factor
3. Antistreptococcal antibodies
4. Creatinephosphokinase
5. Antinuclear factor

What disease is characterized by an increase in titers of antihyaluronidase, antistreptokinase, antistreptolysin?:

1. Gout

2. Dermatomyositis
3. Systemic lupus erythematosus
4. Rheumatic fever
5. Systemic scleroderma

What skin lesion is most characteristic of rheumatic fever?:

1. Erythematous rashes on the face in the form of a “butterfly”
2. Induration of the skin
3. Erythema marginatum
4. Skin atrophy
5. Erythema nodosum

Which joints are most affected by rheumatic fever:

- A. Metacarpophalangeal
- B. Distal interphalangeal
- C. Intervertebral
- D. Sacroileal articulation
- E. Knee

What are the Major diagnostic criteria for acute rheumatic fever:

1. Polyarthritis
2. Fever
3. Lymphadenopathy
4. Tachycardia
5. Headache

The etiological factor in the occurrence of rheumatic fever is:

1. Pseudomonas aeruginosa
2. E. coli

3. Staphylococcus aureus
4. Group A Beta Hemolytic Streptococcus
5. Klebsiella

The minor criteria of Kessel-Jones of acute rheumatic fever include:

1. Cardit
2. Rheumatic nodules
3. Erythema marginatum
4. Polyarthralgia
5. Chorea

The most characteristic manifestation of rheumatoid arthritis is:

1. Joint swelling
2. Hyperemia of the skin in the joint
3. Migratory Pain
4. Damage to the ligamentous apparatus
5. Restriction of movements

The most common electrocardiographic sign of rheumatic heart disease:

1. Paroxysmal tachycardia
2. prolongation of the PQ interval
3. Ventricular tachycardia
4. Complete atrioventricular block
5. Atrial fibrillation

A 17-year-old man went to the doctor with complaints of pain and swelling in the right knee joint, an increase body temperature to 37.6 degrees, the appearance of a rash on the body. From the anamnesis: 3 weeks ago suffered a sore throat. On examination: arthritis of the right knee joint, Erythema marginatum on the skin of the chest. What is the most likely diagnosis?

1. Rheumatoid arthritis.

2. Acute rheumatic fever.
3. Dermatitis.
4. Reactive arthritis
5. Nodular periarteritis

Eradication of type A beta-hemolytic streptococcus from the pharynx is carried out using:

1. Prednisolone
2. Benzylpenicillin
3. Diclofenac
4. Plaquenil
5. Acetylsalicylic acid

Anti-inflammatory treatment of acute rheumatic fever is to prescribe:

1. Benzylpenicillin
2. Azithromycin
3. cefazolin
4. Diclofenac
5. Gentamicin

The basis of the pathogenesis of the development of acute rheumatic fever is:

1. Direct toxic effects (cytopathic effect) of bacteria
2. Development of a hyperimmune response to direct invasion of a microorganism
3. Persistence of a group of viruses that activate fibroblasts
4. Development of a cross-immune response to type A streptococcal antigens
5. Activation of the sympathoadrenal system

In the outcome of acute rheumatic fever, the most common formation is:

1. mitral stenosis
2. mitral insufficiency

3. Aortic stenosis
4. Aortic insufficiency
5. Tricuspid insufficiency

What kind of defect does commissurotomy produce?

1. in case of mitral valve insufficiency
2. with mitral stenosis
3. in aortic insufficiency
4. with stenosis of the aortic orifice
5. in tricuspid insufficiency

Woman S., a teacher, 32 years old, has pain and swelling of the small joints of the hands, wrist and right knee joint. Sick - 3 years. There is morning stiffness, ulnar deviation of the hands, chronic pain. There are no skin rashes. Heart sounds are clear. The Waaler-Rose reaction 1:64, the anticyclic citrullinated peptide [anti-CCP] antibody high titer What is the most likely diagnosis?

1. Rheumatoid arthritis
2. Chronic rheumatic heart disease
3. Psoriatic arthritis
4. Osteoarthritis
5. Reactive Arthritis

What changes are characteristic rheumatoid arthritis in the hands?

1. Ulnar deviation
2. Bouchard's nodes
3. Heberden's nodes
4. Tophi
5. Axial joint damage

What are the radiological signs of stage IV rheumatoid arthritis?

1. osteophytes

2. uneven narrowing of the x-ray gap
3. osteoporosis, narrowing of the joint space, usury, multiple ankyloses
4. periarticular osteoporosis, single usury
5. osteoporosis, narrowing of the joint space, multiple usuras

Kidney damage of rheumatoid arthritis occurs most often in the form of:

1. kidney infarction
2. amyloidosis of kidney
3. polycysts of kidney
4. pyelonephritis
5. Kidney stone

Possible etiological significance of rheumatoid arthritis are following factors:

1. hemolytic streptococcus group A
2. temperature
3. Epstein Barr virus
4. alcohol
5. insolation

What joints are most affected by rheumatoid arthritis?

1. Hips
2. metacarpophalangeal joints
3. Ileosacral articulation
4. knees
5. distal interphalangeal joints

The diagnostic criteria for rheumatoid arthritis from the following:

1. asymmetry of the lesion
2. morning stiffness of less than 1 hour for 6 weeks

3. bilateral sacroileitis
4. Arthritis of 3 joints for 6 weeks
5. spinal injury

Which laboratory marker is most important in the diagnosis of early rheumatoid arthritis:

1. rheumatoid factor
2. anticyclic citrullinated peptide [anti-CCP] antibody
3. neutrophilic leukocytosis
4. anemia
5. thrombocytopenia

Liebman-Sachs endocarditis most often develops with:

1. Rheumatic fever
2. Systemic lupus erythematosus
3. Rheumatoid Arthritis
4. Dermatomyositis
5. Systemic scleroderma

Skin manifestations most characteristic of systemic lupus erythematosus:

1. Inductive edema of the skin
2. Periorbital edema of the eyelids
3. Erythema nodosum
4. Face butterfly erythema
5. Mesh Levedo

What injuries from the spinal cord are more often in patients with SLE:

1. Polyneuritis
2. Dyscirculatory Encephalopathy
3. Osteochondrosis

4. Encephalitis
5. Transverse myelitis

What changes in the blood are most characteristic of systemic lupus erythematosus?

1. Eosinophilia
2. Monocytosis
3. Lymphocytosis
4. Leukopenia
5. Leukocytosis

When conducting pulse therapy for systemic lupus erythematosus, use:

1. Prednisone
2. Dexamethasone
3. Triamcinolone
4. Methylprednisolone
5. Betamethasone

What heart lesion is more often in patients with systemic lupus erythematosus?

1. Myocardial dystrophy
2. Cardiomyopathy
3. Myocardial infarction
4. Exudative pericarditis
5. Myocardiosclerosis

What kidney damage is more often in patients with systemic lupus erythematosus?

1. Nephropathy
2. Nephrotic syndrome
3. Urolithiasis.
4. Chronic pyelonephritis

## 5. Tubular nephritis

Libman–Sacks endocarditis most often develops with:

1. Rheumatic fever
2. Systemic lupus erythematosus
3. Rheumatoid Arthritis
4. Dermatomyositis
5. Systemic scleroderma

Fever with arthralgia, erythema, leukopenia, resistant to antibiotics and sensitive to steroid hormones, is most characteristic for:

1. Infiltrative pulmonary tuberculosis
2. Chronic brucellosis
3. Systemic lupus erythematosus
4. Rheumatoid Arthritis
5. Crohn's Disease

Skin manifestations most characteristic of systemic lupus erythematosus:

1. Inductive edema of the skin
2. Periorbital edema of the eyelids
3. Erythema nodosum
4. Face "butterfly " erythema
5. Mesh Levedo

An LE cell (Lupus Erythematosus cell) is:

1. Neutrophil or macrophage that has phagocytized (engulfed) the denatured nuclear material of another cell
2. Hematoxylin bodies
3. Granulomas

4. Epithelioid cells with inclusions
5. Lymphocytic infiltration

The prognosis and severity of systemic lupus erythematosus determine:

1. Cardit
2. Pneumonitis
3. Polyarthritits
4. Lupus nephritis
5. Face "butterfly " erythema

A 26-year-old woman complains of pain and swelling in the small joints of the hands, redness of the cheeks of the face, palpitations, weakness, weight loss, and ulcers in the mouth. Ill 3 months after giving birth. On examination - pain on palpation of the interphalangeal joints, "butterfly" on the face. The heart rate is 150 per minute. Complete blood count - erythrocytes -  $3.8 \times 10^{12}$  / l, color index - 0.86, leukocyte -  $2.1 \times 10^9$  / l, ESR - 48 mm / h. What is the most likely diagnosis?

1. Systemic scleroderma
2. Dermatomyositis
3. Nodular periarteritis
4. Systemic lupus erythematosus
5. Non-rheumatic myocarditis

A woman, 44 years old, complains of pain and stiffness in the joints of her hands, redness of exposed skin after exposure to the sun. Objectively: on the cheek - erythematous dermatitis, edema on the face, on the lower extremities, heart sounds are dull, systolic murmur is at the top. In the general analysis of blood, erythrocytes are  $2.1 \times 10^{12}$  / l, ESR is 40 mm / h, daily proteinuria is 3.8 g, blood creatinine is 163  $\mu\text{mol}$  / l. What is the most likely diagnosis?

1. Systemic scleroderma
2. Dermatomyositis
3. Rheumatoid Arthritis
4. Systemic lupus erythematosus
5. Acute glomerulonephritis

The most effective group of medicine for treating Raynaud's syndrome with systemic vasculitis are:

1. Disaggregants
2. Anticoagulants
3. Calcium channel blockers
4. ACE inhibitors
5. Antispasmodics

Systemic lupus erythematosus is:

1. Autoimmune disease with hyperproduction organ-specific autoantibodies.
2. Has only a viral etiology.
3. Often occurs in old age.
4. Infectious disease.
5. Disease with low mortality

Which laboratory indicator is most important in the diagnosis of SLE:

1. Increase in immunoglobulins A, M
2. LE cells, antinuclear factor, leukopenia
3. Positive rheumatoid factor
4. Positive CRP, increased sialic test
5. An increase in ESR

Diagnostic criteria for SLE include the following symptoms:

1. Ankyloses, flexion contractures
2. Morning stiffness, arthritis
3. Nephritis, dermatitis, carditis
4. Pustular rash, muscle atrophy
5. Myositis, Raynaud's phenomenon

A 70-year-old female with a history of diabetes mellitus and no history of heart disease presents to the emergency department with chest pains at rest intermittently for the past 4 hours. She has associated shortness of breath and diaphoresis. Her heart rate is 59, blood pressure 134/72, respiratory rate 20, and oxygen saturation 95% on room air. Physical examination reveals normal lung sounds and an S4 gallop. Her ECG reveals ST segment depression in leads V1 to V3. She is given aspirin immediately. Her troponin levels remain negative. She is currently chest pain free. Which of the following is the correct diagnosis?

1. Stable angina
2. Unstable angina
3. Non-ST segment elevation myocardial infarction
4. ST segment elevation myocardial infarction

A 55-year-old male with a history of hypertension presents to the emergency room with acute onset chest pains. His temperature is 37.0, blood pressure 190/70 in the left arm and 150/70 in the right arm, heart rate 110, respirations 22, and oxygen saturation 94% on room air. Physical examination reveals normal lung sounds, elevated jugular venous pressures and a II/IV early diastolic murmur at the right upper sternal border. ECG shows normal sinus rhythm and left ventricular hypertrophy. Which of the following is the most likely diagnosis?

1. Pulmonary embolus
2. Mitral valve stenosis
3. Coarctation of aorta
4. Ascending aortic aneurysm dissection
5. Myocardial ischemia

A 55-year-old female is treated for an acute myocardial infarction with alteplase and experiences severe gastrointestinal bleeding. Which of the following can be administered to reverse the action of alteplase?

1. Platelet transfusion
2. Protamine sulfate
3. Vitamin K
4. Aminocaproic acid

A 78-year-old male with a 35-pack-year smoking history, hyperlipidemia, and peripheral vascular disease is at home eating dinner with his wife when he suddenly has acute onset, crushing chest pain. He lives in a remote rural area, and, by the time the paramedics arrived 30 minutes later, he is pronounced dead. What is the most likely cause of this patient's death?

1. Ventricular septum rupture
2. Chordae tendineae rupture
3. Cardiac tamponade
4. Heart block
5. Ventricular fibrillation

29-year-old female with a history of hypertension presents for a routine clinic visit without any physical complaints. Her blood pressure is 180/100 which she admits it has been at home as well. Physical examination reveals normal lung sounds, a regular rhythm with a hyperdynamic apical impulse and an S4 heart sound, an abdominal bruit is heard, no lower extremity edema. Her pulses are 2+ in upper and lower extremities. Her blood pressure medications include lisinopril, amlodipine, atenolol, hydrochlorothiazide, hydralazine, and clonidine which she states she takes regularly. Screening for secondary causes of hypertension thus far has been negative which has included electrolytes, a complete blood count, creatinine, urinary and serum catecholamines, cortisol levels, renin/aldosterone levels, thyroid stimulating hormone levels, and a dexamethasone suppression test. Which of the following tests should be ordered next?

1. CT aortogram of the thoracic aorta
2. Magnetic resonance angiography of the renal arteries
3. CT scan of the adrenal glands
4. Serum erythropoietin levels

A 48-year-old male presents to the emergency department with headache, blurry vision, and mild chest pains. His temperature is 37.0 C, blood pressure 250/150, heart rate 80, and respirations 18. Physical examination reveals normal breath sounds, an S4 heart sound, and a normal neurological examination. Laboratory studies show a creatinine of 3.5 and a mild elevation in troponin I. ECG is normal sinus rhythm with left ventricular hypertrophy. He is started on a nitroglycerine drip to control his blood pressure. Which of the following is his target blood pressure at this time?

1. 120/80
2. 175/105
3. 200/120
4. 225/135

A 69-year-old male presents to his primary care provider for a general checkup. The patient currently has no complaints. He has a past medical history of diabetes mellitus type II, hypertension, depression, obesity, and a myocardial infarction seven years ago. The patient's prescribed medications are metoprolol, aspirin, lisinopril, hydrochlorothiazide, fluoxetine, metformin, and insulin. The patient states that he has not been filling his prescriptions regularly and that he cannot remember what medications he has been taking. His temperature is 37.5°C, pulse is 96/min, blood pressure is 180/120 mmHg, respirations are 18/min, and oxygen saturation is 97% on room air. Laboratory data are normal. On physical exam which of the following cardiac findings would be expected?

1. Normal S1 and S2
2. Heart sound prior to S1
3. Heart sound after S2

4. Fixed splitting of S1 and S2
5. Holosystolic murmur at the apex

A 44-year-old male presents to the emergency department complaining of a headache. He reports that he developed a severe throbbing headache with blurred vision two hours ago. He has never experienced symptoms like these before. His past medical history is notable for hyperlipidemia and poorly controlled hypertension. He currently takes atorvastatin and lisinopril. His temperature is 37°C, blood pressure is 210/110 mmHg, pulse is 90/min, and respirations are 20/min. He is oriented to person, place, and time. No bruits or murmurs are noted. Strength is 2+ bilaterally in the upper and lower extremities. What is the next best step in the management of this patient?

1. Administer oral hydralazine
2. Administer IV labetalol
3. Funduscopic exam
4. Renal ultrasound
5. Head CT

A 26-year-old male is brought into the emergency room because he collapsed after working out. The patient is a jockey, and he states that he feels dehydrated and has an upcoming meet for which he needs to lose some weight. On exam, the patient has dry mucosa with cracked lips. His temperature is 98.9 deg F (37.2 deg C), blood pressure is 115/70 mmHg, pulse is 105/min, and respirations are 18/min. The patient's blood pressure upon standing up is 94/65 mmHg. His serum Na<sup>+</sup> is 125 mEq/L and K<sup>+</sup> is 3.0 mEq/L. His urinalysis reveals Na<sup>+</sup> of 35 mEq/L and K<sup>+</sup> of 32 mEq/L. The abuse of which of the following is most likely responsible for the patient's presentation?

1. Furosemide
2. Metoprolol
3. Polyethylene glycol
4. Spironolactone
5. Amiloride

A 55-year-old man with a past medical history of diabetes and hypertension presents to the emergency department with crushing substernal chest pain. He was given aspirin and nitroglycerin en route and states that his pain is currently a 2/10. The patient's initial echocardiogram (ECG) is within normal limits, and his first set of cardiac troponins is 0.10 ng/mL (reference range < 0.10 ng/mL). The patient is sent to the observation unit. The patient is given dipyridamole, which causes his chest pain to recur. Which of the following is the most likely etiology of this patient's current symptoms?

1. Cardiac sarcoidosis
2. Coronary steal
3. Dislodged occlusive thrombus
4. Stress induced cardiomyopathy
5. Vasospastic vessel disease

A 32-year-old male presents to the emergency department complaining of shortness of breath and pleuritic chest pain. His vital signs are as follows: HR 133, BP 130/77, RR 28, O<sub>2</sub>Sat 91% on room air. He has a history of Hodgkin's lymphoma, works full-time as a cab driver, and drove himself to the hospital at the end of his shift. Which of the following findings would you most expect to observe on this patient's electrocardiogram?

1. Bradycardia
2. Low voltage
3. Prolonged QT interval
4. Poor R wave progression
5. Right bundle branch block

An 18-year-old male dies suddenly during a track and field event. During a recent sports physical he was noted to have a II/VI systolic crescendo-decrescendo murmur at the right upper sternal border that became louder with Valsalva. A paradoxical split S2 heart sound was heard. Which of the following is his likely diagnosis?

1. Congenital coronary anomaly
2. Commotio cordis
3. Hypertrophic obstructive cardiomyopathy
4. Dilated cardiomyopathy

A 55-year-old male complains of increasing dyspnea on exertion and orthopnea. His physical examination reveals an S3 heart sound, pulmonary rales, jugular venous distension, and lower extremity edema. Coronary angiography is normal. An echocardiogram confirms an ejection fraction of 15% indicating severe congestive heart failure and dilated cardiomyopathy. Which of the following could explain the above findings?

1. A history of heroin abuse
2. Heavy alcohol abuse
3. Tuberculosis infection
4. AIDS

A 17-year-old male with no significant past medical history passes out while running. He states that he was feeling a little dizzy prior to the event, but no chest pains or palpitations. His blood pressure is 115/85, heart rate 80, respirations 12, and he is afebrile. His physical examination reveals normal lung sounds, a II/VI mid-systolic crescendo-decrescendo murmur is heard at the right upper sternal border which increases in intensity with Valsalva, an S4 heart sound is also present. Laboratory studies are normal. What is his most likely diagnosis?

1. Congenital pulmonic valve stenosis
2. Hypertrophic obstructive cardiomyopathy
3. Congenital aortic valve stenosis
4. Commotio cordis

5. Atrial septal defect

A 19-year-old basketball player unexpectedly collapses on the court. Several minutes later he returns to consciousness and is able to continue playing. This has happened several times before with similar outcomes. He had no significant past medical history. Which of the following is most likely to be found in this patient?

1. Atheromatous plaque rupture
2. Coagulation necrosis with loss of nuclei and striations
3. Septal hypertrophy
4. Postductal coarctation of the aorta
5. Cardiac myxoma

A 60-year-old male with a history of congestive heart failure and atrial fibrillation states his vision has been mostly yellow recently. He has noted lack of appetite and weight loss. Laboratory studies reveal an elevated potassium level. Which of the following is the likely cause of his symptoms?

1. Nitroglycerine
2. Digoxin
3. Amiodarone
4. Spironolactone
5. Sildenafil

A 59-year-old male with congestive heart failure has noted increased dyspnea on exertion. Swan-Ganz catheterization reveals the following (pressures in mmHg):

Right atrium - 22

Right ventricle – 44/20

Pulmonary artery – 49/24

Pulmonary capillary wedge pressure – 23

Cardiac index – 2.6 L/min/BSA (normal 2.4-4.4 L/min/BSA)

Administration of which of the following will likely improve his symptoms?

1. Furosemide
2. Carvedilol
3. Lisinopril
4. Intravenous fluids
5. Rivaroxaban

A 58-year-old female has been diagnosed with systolic congestive heart failure. She currently takes lisinopril, hydralazine, and furosemide. Which of the following medications should be added to improve her symptoms and reduce her mortality in the long-term?

1. Carvedilol
2. Nitroglycerine
3. Amlodipine
4. Verapamil
5. Digoxin

A 84-year-old male with a history of severe emphysema and a prior myocardial infarction becomes short of breath with exertion. Physical examination reveals a III/VI holosystolic murmur at the cardiac apex, an S3 heart sound, and rales in the lower lung fields. No lower extremity edema is present. Which of the following is the likely diagnosis?

1. Left-sided congestive heart failure
2. Right-sided congestive heart failure
3. Left and right sided congestive heart failure
4. Cor pulmonale
5. Diastolic heart failure

An 82-year-old male with a history of hypertension and congestive heart failure presents with palpitations. His heart rate is 140 beats per minute and his physical examination reveals an irregularly irregular rhythm. He is diagnosed with atrial fibrillation. Which of the following medications can reduce his heart rate while improving left ventricular systolic function?

1. Bisoprolol
2. Verapamil
3. Digoxin
4. Amiodarone
5. Warfarin

A 65-year-old male with a history of congestive heart failure and severe chronic obstructive pulmonary disease complains of increasing dyspnea on exertion, lower extremity edema, paroxysmal nocturnal dyspnea, and orthopnea. His ejection fraction is noted to be 15%. Physical examination reveals an S3 heart sound, pulmonary rales, and lower extremity pitting edema. Which of the following elevates in the serum with congestive heart failure, reduces preload and afterload and causes diuresis?

1. Aldosterone
2. Carbon dioxide
3. B-type natriuretic peptide
4. Endothelin
5. Xa factor

52-year-old man has arterial hypertension during 10 years. Last two years he takes enalapril 5 mg per a day. Arterial pressure is in a range of 160-170/100-110. The ECG revealed the increased amplitude R wave, depression of ST segment and negative T wave in I, aVL, V5-V6. What conclusion is the most probable?

1. Left ventricle hypertrophy
2. Focal changes in lateral wall of the left ventricle
3. Focal changes in anterior wall of the left ventricle
4. Focal changes in inferior wall of the left ventricle
5. Myocardial infarction without Q in anterior wall of the left ventricle

An ECG of postinfarctional [a year ago] patient shows pathological QS waves in leads VI-V3, I, aVL. Determine the location of old myocardial infarction

1. Anterior
2. Inferior
3. Anterolateral
4. Septal and anterior
5. Postlateral

An attack of severe substernal pain developed in a patient at night. On exam: pallor skin, acrocyanosis, cold sweating, BP of 80/50 mm Hg, PR of 120/min, irregular and weak pulse. What condition are these features typical for?

1. Acute left-sided heart failure
2. Acute right-sided heart failure
3. Radicular syndrome
4. Cardiogenic shock
5. Acute vascular insufficiency

Patient with chronic glomerulonephritis complains of headache, dyspnea and pain in heart area. Examination 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. Enalapril
2. Nifedipine
3. hydrochlorothiazide
4. Atenolol
5. Clonidine

58-year-old patient has been suffering from arterial hypertension. He had myocardial infarction one year ago. Now he is complaining of pain behind the chest, arrhythmia. Examination revealed: heart rate – 90 per minute, blood pressure - 180/90, ECG - supraventricular extrasystole, hypertrophy of the left ventricle and Q wave in V1-V3. Choose the best treatment.

1. Metoprolol
2. Clonidine
3. Enalapril
4. Corinfar
5. Cordaron

Analysis of ECG showed depression of ST segment on 3 mm. What does it mean?

1. Ischemia
2. Necrosis
3. AV block
4. Fibrillation
5. None of them

In a patient with heart failure cardiac glycosides are recommended due to their inotropic effect, which is developed as:

1. Increased force of heart contraction
2. Increased venous pressure
3. Increased heart rate
4. Increased excitability
5. Increased conductivity

A woman, aged 25, complains of constant pain in heart, dyspnea and general malaise. She has pale, cold skin and acrocyanosis.

Her pulse is 96 per min, blood pressure is 105/70 mm hg, left heart border is shifted on 2 cm, first sound is weakened over the apex and there is systolic murmur over the apex. What is diagnosis?

1. Mitral regurgitation
2. Mitral stenosis
3. Aortic regurgitation
4. Aortic stenosis
5. None of them

40 years old patient suffers from arterial hypertension with hyperkinetic type of circulation and increased level of rennin, stenocardia and sinus tachycardia. Indicate the group of drugs which is more preferable for treatment of this patient.

1. Beta-adrenoblockers
2. Nitrates
3. Alpha-adrenoblockers
4. Sympatholytics
5. Ganglionic blockers

A 48-years-old patient complains of dyspnea, attacks of retrosternal pain during physical activity and headache. Inspection revealed that heart rate was 92 per min, blood pressure - 180/95 mm Hg and found systolic murmur over apex. Choose the most effective treatment.

1. Atenolol
2. Hydrochlorothiazide
3. Verapamil
4. Clonidine
5. Enalapril

A patient 64 years old has had essential hypertension for 14 years. Inspection revealed that heart rate was 84 per min, blood pressure - 170/110 mm Hg, glycemia – 7,2 mmole/l, cholesterol - 8,2 mmole/l. What from diuretics do you recommend this patient?

1. Indapamide
2. Hydrochlorothiazide
3. Furosemide
4. Clopamide
5. Enalapril

The patient 54-years-old had myocardial infarction one year ago. Now he complains of dyspnea, attacks of retrosternal pain during physical activity and arrhythmia. Inspection revealed that heart rate was 90 per min, blood pressure - 185/90 mm Hg. ECG revealed supraventricular extrasystole, hypertrophy of the left ventricular and Q wave in V1-V3. Choose the most effective treatment.

1. Metoprolol
2. Corinfar
3. Hydrochlorothiazide
4. Enalapril
5. Furosemide

A man 52 years old complains of attacks of headache, dizziness, palpitation, muscular weakness and numbness of extremities. In anamnesis, he has had COPD. Inspection revealed heart rate was 80 per min, blood pressure- 270/160 mm Hg, heart sounds – rhythmic and accent of the second sound above aorta. What kind of treatment do you recommend?

1. Indapamide
2. Clonidine
3. Propranolol
4. Furosemide
5. Lasix

The patient 30 years old complains of sharp muscular weakness, spasms in muscles of hands and legs, thirst, polyuria, nocturia. Inspection revealed blood pressure was 160/100 mm Hg, in ECG – sings of hypokaliemia and ultrasonic examination showed the increased right adrenal gland. Choose the most effective treatment.

1. Surgical treatment
2. Beta-blockers
3. Alpha-blockers
4. L-Thyroxin
5. Hydrochlorothiazide

The man 68 years old has essential hypertension II stage. He constantly takes enalapril 10 mg per a day. Inspection revealed that pulse was 68 per minute, muted tones of heart, accent of the second sound above aorta. Echocardiography showed hypertrophy of the left ventricle. Lately efficiency of treatment decreased. Blood pressure is not decreased below 160/110 mm Hg. What do you add to treatment?

1. Diuretics
2. Beta-blockers
3. Alpha-blockers
4. Angiotensin inhibitors
5. Calciumchannelblockers

A woman, 40 years, complains of attacks increased arterial pressure, accompanied with sensation of fear, shiver, and palpitation. Prescription of antihypertensive medicines does not reduce of increased arterial pressure. What is diagnosis?

1. Pheochromocytoma
2. Con's syndrome
3. Cushing's syndrome
4. Hypertension stroke
5. None of them

The patient 54 years complains of headache in nape, feeling of heaviness in head. Within a year blood pressure was increased to 150/100 mm hg. During last four years he has diabetes mellitus and takes glibenclamid. Inspection revealed that heart rate was 78 per min, blood pressure - 150/100 mm Hg. How could you start to treat this patient?

1. Angiotensin enzyme inhibitor
2. Beta-blockers
3. Alpha-blockers
4. Diuretics

A man 50 years old suddenly began having severe palpitation, pain in the heart, sharp weakness, high blood pressure, arrhythmic pulse, with deficiency. The ECG revealed no P waves and different duration of R-R intervals. What disorder of rhythm has patient had?

1. Atrial fibrillation
2. Extrasystole
3. AV block
4. Paroxysmal tachycardia
5. Respiratory arrhythmia

Treatment of choice in ventricular fibrillation is

1. Electrical cardioversion
2. Carotid massage
3. Lidocaine
4. Nifedipine
5. Digoxin

37 y.o. woman is suffering from squeezing substernal pain on physical exertion. On examination: AP-130/80 mm Hg, heart rate=pulse rate 72 bpm, heart borders are dilated to the left side, aortic systolic murmur. ECG- signs of the left venticle hypertrophy. What method of examination is the most informative in this case?

1. Sphygmography
2. Phonocardiography
3. Echocardiography
4. X-ray
5. Coronarography

A female rheumatic patient has diastolic thoracic wall tremor (diastolic thrill), accentuated at apex, and diastolic murmur with presystolic intensification, opening snap, accent at pulmonary artery. What kind of heart disorder is observed?

1. Aortic valve insufficiency
2. Mitral stenosis
3. Mitral valve insufficiency
4. Opened arterial duct

5. Pulmonary artery stenosis

A patient with ischemic heart disease and chronic heart failure develops sudden loss of consciousness; on exam, cyanosis, the widened pupils, peripheral pulse and blood pressure are not defined. On ECG: ventricular complexes are absent; instead of them there are waves of different shape and amplitude with irregular rhythm. What is the mechanism of this rhythm disturbance development?

1. Multiple micro-reentry in the ventricles.
2. Enhanced automatic activity of the ventricles
3. Disturbances of neurohumoral regulatory systems
4. Sick sinus syndrome
5. Accelerated diastolic depolarization, a disturbance in electrolyte balance.

An ECG of postinfarctional [a year ago] patient shows pathological QS waves in leads VI-V6, I, aVL. Determine the location of old myocardial infarction

1. Anterior
2. Inferior
3. Septal and anterior
4. Anterolateral
5. Postlateral

The first line therapy of chronic heart failure demands prescription of all agents except of

1. Angiotensin - converting enzyme inhibitors
2. Beta-blockers
3. Diuretics
4. Calcium channel blockers
5. Cardiac glycosides

A 46-year-old patient has ischemic heart disease, angina on exertion, II functional class. What is the drug of choice in treatment of acute attack?

1. Nitroglycerin sublingually
2. Platelet inhibiting agents (aspirin)
3. Spasmolytics (No-spa)
4. Digitalis
5. Sedative agents (Seduxenum) orally

A 52-year-old patient has hypervolaemic type of essential hypertension. Which of the following is necessary to prescribe either as monotherapy, or in a complex with other antihypertensive remedies?

1. Hypothiazid
2. Dibazol
3. Clophelin
4. Kapoten
5. Nifedipin

A 60yr. old asthmatic man comes for a check up and complains of some difficulty in "starting to urinate". Physical examination indicates that the man has blood pressure of 160/100mmHg, and a slight enlarged prostate. Which of the following medications would be useful in treating both of these conditions:

1. Doxazosin
2. Labetalol
3. Phetolamine
4. Propranolol

## 5. Isoproterenol

A 62-year-old patient complains of rest dyspnea, heart pains. 3 years ago he had myocardial infarction. Physical examination: orthopnea, acrocyanosis, swollen cervical veins. Pulse – 92, total heart enlargement, the liver is enlarged by 7 cm, shin edema. What is the stage of chronic heart failure [CHF]?

1. CHF-0
2. CHF- 1
3. CHF- 2 A
4. CHF-2 B
5. CHF-3

During prophylactic examination, 50 years old male, cholesterol level in blood was 4.5 mmol/l and high density lipoprotein 1.15 mmol/l. No pathology in internal organ. No pathological changes in the ECG. Diet recommendation

- 1 Decrease cholesterol level in diet
- 2 Decrease carbohydrate level in diet
- 3 Decrease amount in diet
- 4 No need of any diet correction
- 5 Decrease amount of fat in diet.

Patient F. 60-year-old complains of squeezing pain in the chest during walking of 200 m, BP 140/70 mmHg. Pulse 80/min. Veloergometry: decreased tolerance to physical exertion at 75Wt. What is your diagnosis?

Progressive stenocardia

Spontaneous stenocardia

Stabile stenocardia II FC

Stabile stenocardia III FC

Stabile stenocardia IV FC

A female of 35 years old, 2 weeks after abortion has increased her body temperature to 39 degrees with chills and sweating. Disturbs expressed weakness, heart palpitation. During the inspection: Skin is pale-grey, on the neck and the trunk – petechial rashes, positive Lukin-Libman symptom, splenomegaly. In blood: anemia, leukocytosis, increased ESR. In hemoculture staphylococcus is found. Your diagnosis?

1. Rheumatism
2. Systemic Lupus erythematosus
3. Hemorrhagic vasculitis
4. Infectious endocarditis
5. Acute leucosis

A 33-year-old man with a history of rheumatic fever complains of fever up to 38 - 39°C, abdominal pain, dyspnea, tachycardia. Heart borders are displaced to the left by 2 cm, systolic and diastolic murmurs above aorta, BP of 160/30 mm Hg. Petechial rash occurs after measurement of blood pressure. Liver is enlarged by 3 cm, spleen is palpable. Urine is brown-yellow. What is the most probable diagnosis?

Acute hepatitis

Rheumatic fever

Infectious endocarditis

Acute nephritis

Aortic regurgitation

A 52-year-old patient with previously functional Class II angina complains of intensified during 5

days and prolonged retrosternal pain, decreased exercise tolerance. Angina is less responsive to Nitroglycerinum. Which of the following diagnosis is most likely?

IHD. Unstable angina

Cardialgia due to spine problem

IHD. Functional Class II angina

Myocarditis

Myocardial dystrophy

Patient 50 yrs old had been inspected and diagnosed: IHD, postinfarction cardiosclerosis, sternocardia on exertion III functional class. He had chosen medical therapy which leads to improvement of quality of life. Which one of the preparations decreases mortality?

Nitrosorbid

Metoprolol

Preduktal

Corinfar

5. Panagin

Patient M., 58 year-old complains of breathlessness, palpitation. Pulse 160 /min. BP 90/60 mmHg. ECG - paroxymal ventricular tachycardia. What is needed for the patient?

1. Aimaline
2. Obzidane (Propranolol)
3. Lidocaine
4. Panangine
5. Izoptin (Verapamil)

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?

Fibrillation arrhythmia

Paroximal supraventricular tachycardia

Paroximal ventricular tachycardia

Paroximal tachycardia from atrial-ventricular connection

Partial ventricular extrasystole

31-year-old male, hospitalized due to acute myocardial infarction, suddenly lost consciousness. Pulse, AP, breathing cannot be felt. ECG: wide wave fibrillation. With what procedure should the emergency help be started with?

1. Compression on carotid sinus zone
2. Defibrillation
3. Indirect cardiac massage, AVL
4. Sharp blow on the chest
5. Lidocaine 80 – 120 mg IV bolus

Patient 66 year-old with arterial hypertension (BP 190/110 mmHg) during investigation shows IHD, angina pectoris, II functional class, generalized atherosclerosis of lower extremity's arteries. Blood glucose level is 6,7 mmol/l, cholesterol 7 mmol/l, triglyceride 3 mmol/l. Select the drugs for a treatment of arterial hypertension.

1. Hypothiazide
2. Atenolol
3. Rezerpine
4. Perindopril

5. Methyldopa

Patient complains of increased BP 180/100mmHg, dyspnoea, asthma attacks. Objective: skin is pale, cold sweat, pulse 120 per min and weak. Heart tone weakness, ascend of 2<sup>nd</sup> sound over aorta. Left heart border changed. Rough breathing, dry and moist rales. What complication developed in this patient?

1. Acute right ventricular insufficiency
2. Acute left ventricular insufficiency
3. Hypertension crisis
4. Bronchial asthma
5. Paroxysmal tachycardia

A 42-year-old woman complains of dyspnea, edema of the legs, and tachycardia during small physical exertion. Heart borders are displaced to the left and S1 is accentuated, there is protodiastolic murmur on xiphoid process. The liver is enlarged by 5 cm. What is the cause of heart failure?

1. Mitral stenosis
2. Mitral regurgitation
3. Tricuspid stenosis
4. Tricuspid regurgitation
5. Aortic stenosis

Which of the instrumental diagnostic methods for the pancreas is the reference?

1. ultrasonography;
2. computed tomography;
3. laparoscopy;
4. selective angiography.

Indicate the possible causes of the development of chronic pancreatitis:

1. alcohol abuse;
2. chronic viral infections;
3. cholelithiasis;
4. overweight, hyperlipidemia;
5. all of the above.

Indicate the most optimal combination that makes up the basic treatment in patients with autoimmune hepatitis:

1. corticosteroids + interferon;
2. cytostatics + interferon;
3. corticosteroids + cytostatics;
4. ursodeoxycholic acid + corticosteroids

Indicate the most optimal combination that makes up the basic treatment in patients with primary biliary cirrhosis:

1. corticosteroids + interferon;
2. cytostatics + interferon;
3. corticosteroids + cytostatics;
4. ursodeoxycholic acid + corticosteroids;
5. ursodeoxycholic acid + metatrexate

How many hours after the appearance of the acute pancreatitis clinic can the highest blood amylase levels be recorded?

1. 2-4 hours;
2. 10-12 hours;
3. 18-24 hours;
4. 48-72 hours;
5. 96-120 hours.

A palpable "intestinal abdominal mass" is a clinical sign:

1. Whipple's disease;
2. Crohn's disease;
3. chronic dysenteric colitis;
4. celiac disease;
5. ulcerative colitis.

The etiological factor of pseudomembranous colitis is:

1. clostridium difficile;
2. non-specific coccal flora;
3. hemolytic streptococcus;
4. E. coli;
5. The cause of the disease is unknown.

The most characteristic symptom indicating cancerous degeneration in chronic esophagitis:

1. dysphagia;
2. pain when swallowing;
3. hiccups;
4. heartburn;
5. salivation.

The presence of erosion in the antrum of the stomach is characteristic of:

1. acute gastritis;
2. autoimmune gastritis;
3. granulomatous gastritis;
4. Menetrie disease;
5. Helicobacter pylori infection.

Which test is most reliable for the diagnosis of Zollinger-Ellison syndrome?

1. basal acid production;
2. maximum acid production;
3. the level of gastrin in the blood;
4. EGDS data;
5. biopsy of the gastric mucosa.

What can confirm the penetration of ulcers according to the clinical picture? All but one is true:

1. increased pain;
2. a change in the characteristic rhythm of the occurrence of pain;
3. reducing the response to antacids;
4. melena;
5. the appearance of night pain

The use of which of the following cereals or products from it does not cause a deterioration in the course of celiac disease?

1. wheat;
2. rye;
3. corn;
4. oats;
5. barley.

In the presence of diarrhea and the absence of malabsorption syndrome, you can think about:

1. irritable bowel syndrome;
2. achlorhydria;
3. hysteria;
4. granulomatous colitis;
5. celiac enteropathy.

With diet therapy for peptic ulcer, the inclusion of protein foods with fractional nutrition will lead to:

1. to reduce the aggressiveness of the gastric contents;
2. to increase the aggressiveness of the gastric contents;

3. aggressiveness will not change;
4. to lower the mucous-bicarbonate barrier;
5. to diarrhea.

Indicate the possible complications of Crohn's disease:

1. the formation of fistulas and fistulas;
2. intestinal bleeding;
3. toxic megacolon;
4. intestinal obstruction;
5. all of the above.

Which disease most often and most quickly forms intestinal obliteration?

1. ulcerative colitis;
2. pseudomembranous colitis;
3. ischemic colitis;
4. Crohn's disease.

Which of the following interferons has predominantly antiviral activity?

1.  $\gamma$ -IFN
2.  $\alpha$ -IFN
3.  $\beta$ -IFN

What is the usually limited use of ribavirin in patients with chronic hepatitis C?

1. granulocytopenia;
2. thrombocytopenia;
3. hemolysis.

In the digestive tract, bile undergoes reabsorption. Where is this going?

1. in the duodenum;
2. in the proximal jejunum;
3. in the jejunum (in the terminal section);
4. in the ileum (in the distal section);
5. in the colon.

Creatorrhea is characteristic of:

1. chronic pancreatitis;
2. Crohn's disease;
3. ischemic colitis;
4. irritable bowel syndrome;
5. dyskinesia of the gallbladder.

For the clinical picture of chronic duodenitis are not characteristic:

1. pain in the epigastric region that occurs 2-3 hours after eating;
2. dyspeptic disorders;
3. astheno-vegetative disorders;
4. irradiation of pain in the right and / or left hypochondrium;
5. seasonal exacerbations.

