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ОСНОВЫ ЛАБОРАТОРНОЙ ДИАГНОСТИКИ

BASICS OF LABORATORY DIAGNOSTICS

Практикум



Минск БГМУ 2020

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Содержит набор клинических лабораторных анализов (подобранных в соответствии с учебными программами) для закрепления навыков расшифровки и клинической трактовки лабораторных исследований.

Предназначен для студентов 3-го курса медицинского факультета иностранных учащихся, обучающихся на английском языке.

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LABORATORY DIAGNOSTIC

In the modern world in the process of treatment, patients meet with a variety of diagnostic examinations, among which an important place is occupied by clinical laboratory tests.

Laboratory tests are performed using biological material that was received from the patient. Doctors carry out necessary laboratory tests and check their results. Nurses ensure the interaction between the laboratory, the patient and the doctor: is responsible for the proper preparation for the test, taking and collecting of biological material, the correct and timely delivery of it to the laboratory. Nurses are often involved in filling out an application for laboratory tests and documenting their results in an outpatient card or case history. Laboratory implements of laboratory tests (hematological, clinical, cytological, biochemical, etc.), help to doctors from medical departments in choosing the most informative laboratory tests for examining patients and checking the results of it.

The most popular tests doctors use in therapeutic practice are:

- Complete blood count (CBC)
- Urinalysis
- Sputum tests
- Biochemical blood analysis
- Examination of pleural fluid and another biological fluids
- Stool tests

Complete blood count (CBC)

An important condition for ensuring the quality of laboratory blood tests is taking the material on an empty stomach in the morning. 12 hours before examination patient should exclude alcohol, smoking, eating, limit physical activity. It's necessary not to eat after dinner, go to bed the night before at the usual time for the patient and get up no later than 1 hour before the blood sampling. Blood tests are taken before radiological, endoscopic, rectal examinations or physiotherapy. Patients should exclude medication (if it's impossible to stop taking the medication, it's necessary to inform the laboratory about it). Immediately before taking blood tests, it is necessary to reduce physical activity and emotional stress, you should rest 10–15 minutes before the procedure and calm down.

Complete blood count (CBC) is the main test and one of the first in determining the hematological status and diagnosis of various hematological and non-hematological pathologies. The purpose of the blood test is a quantitative and qualitative analysis of blood cells (erythrocytes, leukocytes, platelets), determination of hemoglobin and erythrocyte sedimentation rate (ESR). Currently, most indicators are performed on automatic hematology analyzers, which are able to simultaneously determine from 5 to 24 parameters of blood. The main ones are the number of leukocytes(white blood cells), hemoglobin concentration, hematocrit, erythrocytes (red blood cell), mean cell hemoglobin (MCH), mean cell hemoglobin concentration (MCHC), mean cell volume (MCV), platelets, mean platelet volume (MPV) and platelet crit.

ESR is determined by the Panchenkov's method (in the Panchenkov's capillary) or by the Westergren's method (in a test tube). ESR count in mm for 1 hour and it depends on the age. The normal rate of ESR for men is 4–10 mm/hour, for women 4–15 mm/hour. The Westergren's method is an international method for determining ESR. It differs from the Panchenkov's method by the characteristics of the tubes used and the calibration of the result scale. But the Westergren's method is more sensitive to increased ESR, and the results in the zone of elevated ESR values will be more accurate than the results obtained by the Panchenkov's method. In many diseases, the ESR is increased, especially for those that are accompanied by changes in the protein fractions of the blood. This is explained by the fact that the greatest influence on the ESR is caused by the violation of the ratio of different fractions of blood proteins. Albumins prevent erythrocyte sedimentation, and globulins, on the contrary, accelerate it. Especially great influence on the erythrocyte sedimentation has fibrinogen. The increase in ESR is observed in various inflammatory processes and infectious diseases. In case of rheumatic and oncological diseases, tuberculosis, myocardial infarction. ESR decrease in case of diseases accompanied by blood clots (polycythemia, food toxicoinfection, cholera).

Hemoglobin — red blood cell pigment. It's a carrier of oxygen from the lungs to the tissues and carbon dioxide from the tissues to the lungs. Currently, hemoglobin is determined automatically using the photometric method. The hemoglobin content for men is 140–180 g/l, for women — 120–170 g/l. The amount of hemoglobin is significantly reduced with anemia, other blood diseases, malignant tumors.

Red blood cells (erythrocytes) are the most numerous blood cells that don't contain nuclei and are the most special cells in the body, the main function of which is to transport oxygen from the lungs to the tissues and transfer carbon dioxide from the tissues to the lungs. This process is carried out with the help of hemoglobin contained in red blood cells. The form of red blood cells in the form of a biconcave disc gives the optimum correlation of volume to surface for the exchange of gases, and provides them with the ability to deform during microcirculation. The determination of the number of red blood cells underlies the assessment of erythropoiesis. Erythrocytes are the subject of further research to determine the concentration of hemoglobin and hematocrit (the ratio of the erythrocytes volume to the total blood volume), and already on the basis of the analyzer calculates erythrocyte indices that qualitatively characterize erythrocytes in the body: MCH — mean cell hemoglobin, MCHC — mean cell hemoglobin concentration, MCV — mean cell volume. In healthy men, the number of erythrocytes in one liter is $4.5-5 \cdot 10^{12}$ cells/l, in women — $4.0-4.8 \cdot 10^{12}$ cells/l. A decrease in the number of red blood cells indicates the presence of anemia. Reducing their number to $1 \cdot 10^{12}$ cells/l is a threat to life. In patients with erythremia, the number of erythrocytes increased to $8-12 \cdot 10^{12}$ cells/l.

The calculation of the color index is made on the basis of the ratio between the number of red blood cells and hemoglobin. $CI = 3 \cdot (HB \text{ g/l}) / 3$ categories of the number of red blood cells (in mln.). In healthy people, the CI is near to one. CI more than one is observed in hyperchromic anemias (for example, Addison-Birmer disease), less than one in hypochromic anemias.

Platelets (blood platelets) come from giant bone marrow cells-megakaryocytes. Platelets are round or oval in shape. Participate in the formation of a blood clot. The number of platelets in healthy people is $250-350 \cdot 10^9/l$. The content of platelets increases with bleeding, surgery, malignant neoplasms. Thrombocytopenia occurs with Verlgof's disease, leukemia, and infectious diseases.

Leukocytes (“white blood cells”) are divided into groups: granulocytes and agranulocytes. The name of granulocytes is associated with the presence of specific granules in the cytoplasm. Three types of granulocytes are identified, depending on the affinity for staining in blood smears: neutrophils, eosinophils, and basophils. In addition, these cells are also called polymorphonuclear leukocytes due to a segmented nucleus. Agranulocytes consisting of lymphocytes and monocytes, as a rule, don’t contain specific cytoplasmic granules, have a non-segmented nucleus and are also called mononuclear leukocytes. In healthy individuals, the number of leukocytes ranges from $4-9 \cdot 10^9$ in one liter. When the number of leukocytes exceeds $9 \cdot 10^9$ in one liter, we are talking about leukocytosis; a decrease in the number of white blood cells below $4 \cdot 10^9$ in one liter is called leukopenia. Leukocytosis is observed in many diseases of the blood-forming organs (leukemia, lymphogranulomatosis), in purulent diseases (abscesses, appendicitis, cholangitis), pneumonia and myocardial infarction. Leukopenia is marked with anemia, liver cirrhosis, drug poisoning, radiation sickness, as well as with some infectious diseases (Botkin’s disease, brucellosis, influenza, typhoid fever). The leukocyte formula is the ratio between the various forms of white blood cells. It is counted in blood smears.

To determine the leukocyte formula, the coloring according to Romanovsky–Giemsa is used. The colorant is a mixture of acid (eosin) and alkaline (azure 2) dyes. Acidic substances are stained azure in blue, and alkaline substances, in eosin, in red, while neutral receive both colors and turn it in purple. When calculating use two-key counters, and in the absence of it writes on paper. 200 cells are counted and the numbers obtained for each type of white blood cell are divided in half.

Neutrophils amount 50–70 % of leukocytes. Their cytoplasm is stained in light pink, granules in purple. Neutrophils are divided into stab (2–5 %) and segmented (51–67 %).

Eosinophils have a characteristic bright red grain and a segmented core. The number of eosinophils in a healthy person ranges from 2 to 4 %.

Basophils are the smallest granulocytes. The nucleus of their irregular shape occupies almost the entire cell. The content of these cells is (0.5–1 %).

Lymphocytes are non-granular cells. The nucleus is located centrally, has a round or bean-shaped form, is stained in blue-violet color. The content of lymphocytes in the blood of a healthy person is 23–25 %.

Monocytes are the largest blood cells. Their horseshoe-shaped or irregularly shaped core are colored purple-red. Cytoplasm has a purple-blue color with a delicate reddish grain. The normal rate of monocytes is 4–8 %.

Neutrophils perform a protective function in the body. They fight against microbes and toxins. During infections, intoxication, their number increases significantly. At the same time, immature forms appear: the number of stabs is increasing, young neutrophils appear, even myelocytes. This neutrophilic rejuvenation is called left shift. Eosinophils are very active in allergic diseases and collagen diseases. Their number increases with helminthiasis, scarlet fever, lymphogranulomatosis. In some diseases (miliary tuberculosis, typhoid fever), their number, on the contrary, decreases. Basophils are involved in the formation of heparin, and in immune responses. Their number increases with myeloid leukemia. An increase in the number of lymphocytes is observed in tuberculosis, thyrotoxicosis, and especially in

lymphocytic leukemia. Lymphopenia occurs in the final stages of Hodgkin's disease and lymphosarcomatosis. Monocytes perform a protective function, capturing alien cells, bacteria, and malarial plasmodia. Monocytosis is observed in malaria, tuberculosis. Monocytopenia — with severe sepsis, typhoid fever.

Urinalysis

For proper research, it's necessary to use strictly morning urine collected immediately after awakening. It isn't recommended to take antibacterial drugs, uroseptics for three weeks before examination, to take diuretics on the eve of the examination, to avoid alcohol, spicy and salty foods, foods that change the color of urine (beets, carrots) on the eve of urine collection. Before collecting urine, it's necessary to clean the external genitalia without using disinfectants (soap, shower gel, etc.). Women are not recommended to take a urine test during menstruation and within 5–7 days after cystoscopy. In case of urgent need, urine is taken with the catheter. Urine is collected in a sterile disposable urine container. The container after collecting the urine is tightly closed with a cover, placed in a clean disposable bag and delivered to the laboratory. Nurse should fill direction for urinalysis, write patient's surname, name, patronymic, age, department, diagnosis.

For urinalysis a single portion of urine or daily urine can be used.

General urine analysis: after preparation, the patient goes to the toilet, collects the entire portion of morning urine in a clean container with a volume of at least 0.5 l. Next, the patient pours urine into a disposable container in an amount of at least 50 ml, closes the container with a cover and delivers urine to the laboratory. The rest of the urine must be poured out to the toilet.

Urine analysis according to Nechyporenko: the test is usually prescribed after a general urine test, and is collected separately from it (on another day). For this study, urine is collected at any time of the day. The patient should start urinating into the toilet (after lowering the first portion of urine within a few seconds), then gently inserts the container under the stream of urine and fills it with a medium portion in an amount of at least 15–25 ml. Further continues to urinate into the toilet.

Urine analysis Zimnitsky: the purpose of this study is to check the function of the kidneys. For this study, 8 containers for urine collection are needed. The patient will collect urine during the day, every three hours, including night time, in separate containers. Labels are stuck on the container with the indication of the number and time when this portion was received. Urine collection begins after 6.00 in the morning, held every three hours, the last portion at 6.00 the next day. The patient gets up in the morning at 6 o'clock, goes to the toilet and completely empty the bladder into the toilet. Then every 3 hours, collects all the urine that has accumulated in it during this time, in a separate container. The patient must collect urine at 9, 12, 15, 18, 21, 24, 3 and 6 hours. To collect urine at night, you must wake up on time. If at some time there was no urination, then this container remains empty. This empty signed container must be transported to the laboratory. Containers with urine must be stored in a cool place, for example, in a refrigerator on the lower shelf at $t = +4-8$ °C, without allowing freezing. Each container must be tightly closed with a cover, placed in clean disposable bags and delivered to the laboratory.

Reberg test: this analysis is collected similarly to the rules for collecting daily urine. Next, about 100 ml of urine is collected in a container and delivered to the laboratory with an indication of volume. The blood for determining the Reberg test is taken on the day of

the urine test (the end of the period for collecting daily urine). It is necessary to check in the direction of height, weight, age of the patient, the amount of urine in ml and the time for which it was collected.

The study of urine is a great diagnostic test not only in diseases of the kidneys and the cardiovascular system, but also in diseases of other organs and systems. Various pathological processes affect the properties of urine. The results of the urine study allow to estimate the course of the disease and the effectiveness of the treatment. Urine examination includes the determination of physical properties, chemical analysis and microscopic examination of sediment.

Physical properties of urine. The color of urine is normally depends on its concentration and ranges from amber-yellow to straw-yellow. Colorless urine is observed with an increase in diuresis (after taking diuretics, in case of diabetes). Dark-yellow urine color, like the color of beer, occurs with jaundice and depends on the presence of yellow pigments in it. The urine of the color of meat slop is observed with severe hematuria, for example, with tumors, heart attack or kidney injuries. Normal urine is clear. Turbidity of the urine can be caused by the presence of salts, cellular elements, mucus, fat, bacteria in it. Smell: fresh urine of a healthy person has no smell. If the urine was in a warm room for a long time, then it acquires an ammonia smell. When the content of acetone in the urine (diabetes) appears fruity odor. Reaction of urine: urine with mixed foods is acidic or neutral, with acidosis — acidic urine, and with alkalosis — alkaline. With diseases accompanied by the appearance of acidic metabolic products in the blood (uremia, diabetes, heart failure), urine becomes sharply acidic. The reaction of urine is determined by titration, using a pH meter and litmus paper. The density of urine ranges from 1001 to 1040. The density of the primary urine is 1010–1012, i.e. it is equal to the plasma density. The excretion of urine with a density of 1010–1012 is called isostenuria, the excretion of urine with a lower density of hypostenuria. Prolonged hypostenuria is a poor prognostic sign. The amount of urine depends on the amount of fluid taken. A healthy person produces 1000–2000 ml of urine per day. In diabetes, the amount of urine excreted can reach 8 liters or more. Normally, most urine is excreted during the day. Excretion of urine mainly at night (nicturia) is observed in chronic nephritis.

Chemical examination of urine. The presence of protein, urobilin, glucose, acetone, salts, enzymes, hormones, etc. is also determined in the urine. Determination of protein: urine of a healthy person doesn't contain protein. Urinary protein excretion is called proteinuria. Proteinuria can be renal and extrarenal. In renal proteinuria, the protein enters the urine from the plasma. In case of it, kidney tissue damage is observed (chronic nephritis, nephrotic syndrome), or the renal penetration is increased under the influence of an external stimulus (food changes, cold, emotional or physical exertion). Determination of sugar in the urine: urine of a healthy person doesn't contain sugar. When eating large amounts of carbohydrates, sugar in the urine may appear. This condition is called physiological glucosuria. In diabetes, diseases of the hypophysis and adrenal glands, pathological glucosuria occurs. Determination of ketone bodies: ketone bodies include acetone, acetoacetic acid and beta — oxybutyric acid. They appear in the urine with diabetes, as well as acute damage to the liver and kidneys, during intoxication A positive reaction to ketone bodies in the urine of diabetic patients indicates a threatening condition (coma).

Microscopic examination of urinary sediment. For microscopic examination, the urine is centrifuged, after which the sediment is transferred onto a glass slide and microscopied, first with a small increase, then with a large for a more detailed study of the formed

elements in the urine — red blood cells, leukocytes, cylinders, epithelial cells. Red blood cells may be unchanged (contain hemoglobin), having a greenish-yellow color, and modified (free from hemoglobin) — colorless. The presence of red blood cells in the urine is called hematuria. There is a macrohematuria, when the blood in the urine is so pronounced that the urine becomes the color of meat slop, and microhematuria, in which red blood cells are detected only under a microscope. Unchanged erythrocytes are found in kidney infarction, kidney stones, cancer, kidney tuberculosis, injuries, as well as in cystitis and urethritis. Leukocytes in the urine of healthy individuals do not detect or are single leukocytes (3–5 in the field of view). If leukocytes cover the entire field of view, then they talk about pyuria. It occurs with kidney damage (pyelonephritis), bladder (cystitis), and urinary tract. To determine the degree of leukocyturia, the Nechiporenko method is used. To do this, when urinating after an external toilet, a medium portion of urine is taken, from which 5 ml is extracted and centrifuged for 10 minutes. Next, the liquid part is drained and the uniform elements are counted in the Goryaev chamber. Obtained by counting the number of leukocytes, erythrocytes and cylinders multiplied by 250. According to the results of this test, in healthy individuals the number of leukocytes is $0-4 \cdot 10^3$, erythrocytes — $0-1 \cdot 10^3$, cylinders — 0–250. Cylinders are protein casts of the renal tubules and are formed mainly from blood plasma globulins. There are 2 types of cylinders hyaline and epithelial (cellular). Hyaline cylinders are most common in patients with chronic nephritis. Epithelial cylinders are composed of desquamated renal tubular epithelial cells. A variety of epithelial cylinders are granular and waxy cylinders. Granular cylinders are composed of a dense granular mass, clearly contoured. Waxy cylinders are flat homogeneous formations. The appearance of cylinders in the urine (cylindruria) indicates the defeat of the epithelium of the tubular apparatus of the kidneys. Especially pronounced cylindruria in chronic nephrosis. Epithelial cells can be represented by cells of the flat, transitional and renal epithelium. Cells of the squamous epithelium have a round or polygonal shape with a small nucleus. They enter the urine from the external genital organs or urethra. The cells of the transitional epithelium lining the mucous membrane of the urinary tract. The presence of a large number of these cells in the urine indicates an inflammatory process in the pelvis or bladder. Renal epithel cells have an irregular shape, yellowish color. Their appearance is a characteristic sign of acute and chronic kidney damage. They are also found in infectious diseases and intoxications.

Sputum examination

It's necessary to collect sputum in the morning before meals and drugs, by coughing. Saliva and nasopharyngeal secretions or sinuses should be avoided. Before sputum discharge, the patient should brush his teeth and thoroughly rinse his mouth and throat with boiled water to prevent the contents of the oral cavity from getting into the sputum. Sputum taking is carried out with deep coughing in an amount of not less than 3 ml. It's necessary to take two deep breaths, holding the breath for a few seconds after each breath and slowly exhaling. Then inhale a third time and exhale the air with force. Inhale again and cough up well. After the container is immediately closed with a cover, the container with sputum is labeled and delivered to the laboratory.

Sputum test.

Macroscopic, microscopic and bacterioscopic examination of sputum is carried out in the laboratory. A macroscopic examination determines the amount of sputum, its smell, texture, nature, color, the presence of pathological impurities. In bronchitis, bronchial asthma,

lobar pneumonia, patients give out sputum in single portions. In the presence of bronchiectasis, the amount of sputum can be from 0.5 liters or more per day. The consistency distinguish liquid, viscous, thick sputum. With bronchitis and bronchopneumonia, sputum is liquid or moderately viscous, and with lobar pneumonia it's thick, poorly separated. By the nature of sputum, it is mucous, mucous-purulent with bronchitis, bronchial asthma, serous with pulmonary edema, purulent with bronchiectasis and lung abscess. Bloody sputum contains blood in various quantities. In some cases, it consists of almost one blood (with pulmonary bleeding), in others, it contains blood in separate portions (tuberculosis, abscess, lung cancer). The color of sputum depends on the nature of the disease: in lung cancer — a crimson-colored sputum, in lobar pneumonia — rusty. Purulent sputum usually has a yellowish color, with bronchial asthma “glassy” sputum is secreted. The smell of sputum is often absent. Offensive odor arises from the putrefactive collapse of lung tissue (lung gangrene, lung cancer), as well as protein decomposition during sputum retention in the cavities (bronchiectasis, lung abscess). Impurities of sputum include the presence of fibrin from the bronchi in croupous pneumonia, Kurschman spirals and Charcot–Leiden crystals in bronchial asthma, Dietrich cork — lumps of bacterial decomposition products and disintegration of lung tissue observed during abscess and gangrene of the lungs.

Microscopic examination of sputum is carried out in both native (unstained) and stained preparations. In the first case, a portion of sputum is applied to a glass slide, covered with a cover glass and then examined under a microscope under different magnifications. In the native preparation, epithelial cells, leukocytes, erythrocytes, actinomycetes, hematoidin crystals and fatty acids are studied. In bronchial asthma, eosinophils and Charcot–Leiden crystals and the Kurschman spiral are detected. Eosinophils are a rounded formation of light gray. Charcot crystals are brilliant transparent diamonds that are formed when eosinophils are destroyed. Spiral Kurshman represents the casts of transparent mucus, occurring in bronchial asthma, less often in pneumonia, lung cancer. Elastic fibers are double-lumen brilliant formations, they are formed during the breakdown of lung tissue and are found in tuberculosis and lung abscess. Hematoidin crystals have the form of rhombuses, stars of golden color and are found with hemorrhages in necrotic lung tissue. The cells of malignant tumors enter the sputum during their disintegration. These cells are large, have a different shape, a large nucleus, and sometimes several nuclei. Actinomycetes consist of a central part, which is a plexus of mycelium, and a radiantly located flask-shaped formations surrounding it.

Pleural fluid examination

Liquid residues (exudates and transudates) are obtained by puncture of serous cavities (pleural, abdominal, pericardial). It's necessary to inform the patient why this examination is necessary, what it is. If the patient is conscious, get his written consent to this manipulation, the absence of an allergy to novocaine or lidocaine. A nurse measures a patient's blood pressure and pulse. Next, you need to offer the patient to undress to the waist and take the desired position (sitting, leaning on the back of the chair). The puncture is made by the doctor. The resulting liquid is collected in a clean, dry dish, the laboratory immediately after the puncture send the entire amount of the resulting liquid.

Depending on the type and external properties of the accumulated fluid, as well as the nature of the pathological process in the pleural cavity, there are:

- hydrothorax — accumulation in the pleural cavity of the transudate — the so-called non-inflammatory fluid; hydrothorax is also sometimes referred to as accumulation of fluid of unknown properties and origin in the pleural cavity;
- exudative pleurisy — an inflammatory process of the pleura, accompanied by the accumulation in the pleural cavity of the exudate — an inflammatory fluid;
- empyema (pyothorax) — purulent inflammation of the pleura, accompanied by the accumulation of pus in the pleural cavity;
- hemothorax — accumulation of blood in the pleural cavity; most common in injuries of the chest;
- chylothorax — accumulation of lymph in the pleural cavity, most often found in injuries of the thoracic lymphatic duct or mediastinal tumors.

Symptom	Transsudat	Exsudat
Properties	clear straw — yellow liquid	yellow or orange liquid
Density	less than 1.015	more than 1.015
Protein rate	content less than 30 g/l	more than 30 g/l:
The ratio of protein content effusion/serum	less than 0.5	0.5 and more
LDH activity	less than 1.6 mmol/(l · hour)	more than 1.6 mmol/(l · hour)
The ratio of the activity of LDH effusion / serum	below 0.6	over 0.6
Reaction Rivalta	negative	positive
Glucose rate	more than 3.33 mmol/l	less than 3.33 mmol/l
Causes	heart failure (cardiogenic hydrothorax), liver cirrhosis, nephrotic syndrome, severe myxedema	pneumonia (para- and metapneumonic pleurisy), infectious destruction of the lungs, tuberculosis (tuberculous pleurisy), metastatic damage to the pleura, pleural mesothelioma, systemic vasculitis, sarcoidosis, pneumoconiosis

**1. 6-я ГКБ
ИССЛЕДОВАНИЕ КРОВИ**

Ф.И.О. Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Эритроциты: м. $4,0-5,1 \cdot 10^{12}/л$
ж. $3,7-4,7 \cdot 10^{12}/л$
Гемоглобин: м. 140-160 г/л
ж. 120-140 г/л
Цветной показатель: 0,8-1,0
Лейкоциты: $4-9 \cdot 10^9/л$
Базофилы: 0,1-1 %
Эозинофилы: 0,5-5,0 %
Миелоциты: -
Юные: -
Палочкоядерные: 1-6 %
Сегментоядерные: 45-70 %
Лимфоциты: 19-37 %
Моноциты: 2-8 %
СОЭ: м. 1-10 мм/ч
ж. 1-15 мм/ч
Ретикулоциты: 0,2-1 %
Тромбоциты: $150-400 \cdot 10^9/л$

Дата _____
Подпись _____

Заключение:

**1. Clinical City Hospital #6
COMPLETE BLOOD COUNT (CBC)**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Erythrocytes (RBC): (for men) $4.0-5.1 \cdot 10^{12}/l$
(for women) $3.7-4.7 \cdot 10^{12}/l$
Hemoglobin: (for men) 140-160 g/l
(for women) 120-140 g/l
Color index: 0.8-1.0
Leucocytes (WBC): $4-9 \cdot 10^9/l$
Basophils: 0.1-1 %
Eosinophils: 0.5-5.0 %
Myelocytes: -
Young neutrophils: -
Band neutrophils: 1-6 %
Segmented neutrophils: 45-70 %
Lymphocytes: 19-37 %
Monocytes: 2-8 %
ESR: 1-15 mm/H
Reticulocytes: 0.2-1 %
Platelets: $150-400 \cdot 10^9/l$

Date _____
Signature _____

Conclusion:

**2. 6-я ГКБ
ИССЛЕДОВАНИЕ КРОВИ**

Ф.И.О. Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Эритроциты: $4 \cdot 10^{12}/л$
Гемоглобин: 120 г/л
Цветной показатель: 0,9
Лейкоциты: $11 \cdot 10^9/л$
Эозинофилы: 0 %
Юные: 2 %
Палочкоядерные: 20 %
Сегментоядерные: 64 %
Лимфоциты: 9 %
Моноциты: 5 %
Ретикулоциты: 0,2 %
Тромбоциты: $250 \cdot 10^9/л$
СОЭ: 37 мм/ч

Дата _____
Подпись _____

Заключение:

**2. Clinical City Hospital #6
COMPLETE BLOOD COUNT (CBC)**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Erythrocytes (RBC): $4.0 \cdot 10^{12}/l$
Hemoglobin: 120 g/l
Color index: 0.9
Leucocytes (WBC): $11 \cdot 10^9/l$
Eosinophils: 0 %
Young neutrophils: 2 %
Band neutrophils: 20 %
Segmented neutrophils: 64 %
Lymphocytes: 9 %
Monocytes: 5 %
Reticulocytes: 0.2 %
Platelets: $250 \cdot 10^9/l$
ESR: 37 mm/H

Date _____
Signature _____

Conclusion:

**3. 6-я ГКБ
ИССЛЕДОВАНИЕ КРОВИ**

Ф.И.О. Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Эритроциты: $3 \cdot 10^{12}/л$
Гемоглобин: 64 г/л
Цветной показатель: 0,6
Лейкоциты: $3,8 \cdot 10^9/л$
Базофилы: 0 %
Эозинофилы: 0 %
Юные: 1 %
Палочкоядерные: 3 %
Сегментоядерные: 73 %
Лимфоциты: 19 %
Моноциты: 4 %
Ретикулоциты: 0,2 %
Тромбоциты: $302 \cdot 10^9/л$
СОЭ: 24 мм/ч

Дата _____
Подпись _____

Заключение:

**3. Clinical City Hospital #6
COMPLETE BLOOD COUNT (CBC)**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Erythrocytes (RBC): $3.0 \cdot 10^{12}/l$
Hemoglobin: 64 g/l
Color index: 0.6
Leucocytes (WBC): $3.8 \cdot 10^9/l$
Basophils: 0 %
Eosinophils: 0 %
Young neutrophils: 1 %
Band neutrophils: 3 %
Segmented neutrophils: 73 %
Lymphocytes: 19 %
Monocytes: 4 %
Reticulocytes: 0.2 %
Platelets: $302 \cdot 10^9/l$
ESR: 24 mm/H

Date _____
Signature _____

Conclusion:

**4. 6-я ГКБ
ИССЛЕДОВАНИЕ КРОВИ**

Ф.И.О. Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Эритроциты: $2,8 \cdot 10^{12}/л$
Гемоглобин: 94 г/л
Цветной показатель: 1,0
Лейкоциты: $12 \cdot 10^9/л$
Базофилы: 0 %
Эозинофилы: 0 %
Миелоциты: 1 %
Палочкоядерные: 8 %
Сегментоядерные: 69 %
Лимфоциты: 18 %
Моноциты: 4 %
Ретикулоциты: 12 %
Тромбоциты: $340 \cdot 10^9/л$
СОЭ: 16 мм/ч

Дата _____
Подпись _____

Заключение:

**4. Clinical City Hospital #6
COMPLETE BLOOD COUNT (CBC)**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Erythrocytes (RBC): $2.8 \cdot 10^{12}/л$
Hemoglobin: 94 g/l
Color index: 1.0
Leucocytes (WBC): $12 \cdot 10^9/л$
Basophils: 0 %
Eosinophils: 0 %
Myelocytes: 1 %
Band neutrophils: 8 %
Segmented neutrophils: 69 %
Lymphocytes: 18 %
Monocytes: 4 %
Reticulocytes: 12 %
Platelets: $302 \cdot 10^9/л$
ESR: 16 mm/H

Date _____
Signature _____

Conclusion:

**5. 6-я ГКБ
ИССЛЕДОВАНИЕ КРОВИ**

Ф.И.О. Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Эритроциты: $2,5 \cdot 10^{12}/л$
Гемоглобин: 96 г/л
Цветной показатель: 0,9
Лейкоциты: $2 \cdot 10^9/л$
Базофилы: 0 %
Эозинофилы: 0 %
Миелобласты: 54 %
Палочкоядерные: 1 %
Сегментоядерные: 17 %
Лимфоциты: 26 %
Моноциты: 2 %
Ретикулоциты: 0,2 %
Тромбоциты: $180 \cdot 10^9/л$
СОЭ: 55 мм/ч

Дата _____
Подпись _____

Заключение:

**5. Clinical City Hospital #6
COMPLETE BLOOD COUNT (CBC)**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Erythrocytes (RBC): $2.5 \cdot 10^{12}/l$
Hemoglobin: 96 g/l
Color index: 0.9
Leucocytes (WBC): $2 \cdot 10^9/l$
Basophils: 0 %
Eosinophils: 0 %
Myeloblasts: 54 %
Band neutrophils: 1 %
Segmented neutrophils: 17 %
Lymphocytes: 26 %
Monocytes: 2 %
Reticulocytes: 0.2%
Platelets: $180 \cdot 10^9/l$
ESR: 55 mm/H

Date _____
Signature _____

Conclusion:

**6. 6-я ГКБ
ИССЛЕДОВАНИЕ КРОВИ**

Ф.И.О. Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Эритроциты: $3,5 \cdot 10^{12}/л$
Гемоглобин: 112 г/л
Цветной показатель: 0,9
Лейкоциты: $330 \cdot 10^9/л$
Базофилы: 4 %
Эозинофилы: 6 %
Миелобласты: 2 %
Промиелоциты: 5 %
Миелоциты: 3 %
Юные: 4 %
Палочкоядерные: 7 %
Сегментоядерные: 30 %
Лимфоциты: 30 %
Моноциты: 9 %
Тромбоциты: $400 \cdot 10^9/л$
СОЭ: 30 мм/ч

Дата _____
Подпись _____

Заключение:

**6. Clinical City Hospital #6
COMPLETE BLOOD COUNT (CBC)**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Erythrocytes (RBC): $3.5 \cdot 10^{12}/l$
Hemoglobin: 112 g/l
Color index: 0.9
Leucocytes (WBC): $330 \cdot 10^9/l$
Basophils: 4 %
Eosinophils: 6 %
Myeloblasts: 2 %
Promyelocytes: 5 %
Myelocytes: 3 %
Young neutrophils: 4 %
Band neutrophils: 7 %
Segmented neutrophils: 30 %
Lymphocytes: 30 %
Monocytes: 9 %
Platelets: $400 \cdot 10^9/l$
ESR: 30 mm/H

Date _____
Signature _____

Conclusion:

**7. 6-я ГКБ
ИССЛЕДОВАНИЕ КРОВИ**

Ф.И.О. Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Эритроциты: $4 \cdot 10^{12}/л$
Гемоглобин: 120 г/л
Цветной показатель: 0,9
Лейкоциты: $52 \cdot 10^9/л$
Базофилы: 0 %
Эозинофилы: 1 %
Пролимфоциты: 2 %
Палочкоядерные: 1 %
Сегментоядерные: 24 %
Лимфоциты: 72 %
Моноциты: 2 %
Тромбоциты: $21 \cdot 10^9/л$
СОЭ: 17 мм/ч
Тельца Боткина–Гумпрехта: +

Дата _____
Подпись _____

Заключение:

**7. Clinical City Hospital #6
COMPLETE BLOOD COUNT (CBC)**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Erythrocytes (RBC): $4.0 \cdot 10^{12}/l$
Hemoglobin: 120 g/l
Color index: 0.9
Leucocytes (WBC): $52 \cdot 10^9/l$
Basophils: 0 %
Eosinophils: 1 %
Prolymphocytes: 2 %
Band neutrophils: 1 %
Segmented neutrophils: 24 %
Lymphocytes: 72 %
Monocytes: 2 %
Platelets: $21 \cdot 10^9/l$
ESR: 17 mm/H
Shadow cells of Botkin–Gumprecht: +

Date _____
Signature _____

Conclusion:

**8. 6-я ГКБ
ИССЛЕДОВАНИЕ КРОВИ**

Ф.И.О. Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Эритроциты: $4 \cdot 10^{12}/л$
Гемоглобин: 140 г/л
Цветной показатель: 1,0
Лейкоциты: $30 \cdot 10^9/л$
Базофилы: 0 %
Эозинофилы: 0 %
Миелоциты: 1 %
Юные: 0 %
Палочкоядерные: 10 %
Сегментоядерные: 80 %
Лимфоциты: 10 %
Моноциты: 0 %
Тромбоциты: $160 \cdot 10^9/л$
СОЭ 15 мм/ч

Дата _____
Подпись _____

Заключение:

**8. Clinical City Hospital #6
COMPLETE BLOOD COUNT (CBC)**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Erythrocytes (RBC): $4.0 \cdot 10^{12}/l$
Hemoglobin: 140 g/l
Color index: 1.0
Leucocytes (WBC): $30 \cdot 10^9/l$
Basophils: 0 %
Eosinophils: 0 %
Myelocytes: 1 %
Young neutrophils: 0 %
Band neutrophils: 10 %
Segmented neutrophils: 80 %
Lymphocytes: 10 %
Monocytes: 0 %
Platelets: $160 \cdot 10^9/l$
ESR: 15 mm/H

Date _____
Signature _____

Conclusion:

9. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОЧИ

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Количество мочи: 250,0 мл
Цвет: соломенно-желтый
Удельный вес: 1020
Запах:
Прозрачность: прозрачная
Белок: нет
Сахар: нет
Ацетон: нет
Билирубин: нет
Уробилин: нет
Реакция: слабокислая

Микроскопическое исследование

Эпителий плоский: 1–2 в поле зрения
Эпителий почечный: отриц.
Лейкоциты: 0–2 в поле зрения
Эритроциты: 0–1 в поле зрения
Цилиндры (гиалиновые, зернистые): отриц.
Цилиндры эпителиальные: отриц.
Цилиндры восковые: отриц.
Слизь: отриц.
Бактерии: отриц.
Соли: отриц.

Дата _____

Подпись _____

Заключение:

9. Clinical City Hospital #6
URINALYSIS

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Amount of urine: 250.0 ml
Color: straw-yellow
Relative density: 1020
Odor:
Transparency: transparent
Protein: is not present
Glucose: is not present
Acetone: is not present
Bilirubin: is not present
Urobilin: is not present
Reaction (Ph): faintly acidic

Microscopic examination

Flat epithelium: 1–2 in sight
Renal epithelium: negative
Leucocytes: 0–2 in sight
Erythrocytes: 0–1 in sight
Cylinders (hyaline, granular): negative
Epithelial cylinders: negative
Waxy cylinders: negative
Mucus: negative
Bacteria: negative
Salts: negative

Date _____

Signature _____

Conclusion:

**10. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОЧИ**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Количество мочи: 130,0 мл
Цвет: соломенно-желтый
Удельный вес: 1015
Запах:
Прозрачность: мутная
Реакция: щелочная
Белок: нет
Сахар: нет
Ацетон: нет
Билирубин: нет
Уробилин: нет

Микроскопическое исследование

Эпителий плоский: единичные в препарате
Эпителий почечный: отсутствует
Лейкоциты: 20–30 в поле зрения
Эритроциты: отсутствуют
Цилиндры гиалиновые: 1–2 в поле зрения
Слизь, бактерии: в большом количестве

Дата _____
Подпись _____

Заключение:

**10. Clinical City Hospital #6
URINALYSIS**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Amount of urine: 130.0 ml
Color: straw-yellow
Relative density: 1015
Odor:
Transparency: cloudy
Reaction (Ph): alkaline
Protein: is not present
Glucose: is not present
Acetone: is not present
Bilirubin: is not present
Urobilin: is not present

Microscopic examination

Flat epithelium: 1–2 in sight
Renal epithelium: negative
Leucocytes: 20–30 in sight
Erythrocytes: negative
Cylinders (hyaline): 1–2 in sight
Mucus: considerable amount
Bacteria: considerable amount

Date _____
Signature _____

Conclusion:

**11. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОЧИ**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Количество мочи: 180,0
Цвет: мясных помоев
Удельный вес: 1025
Прозрачность: мутная
Реакция: кислая
Белок: 2,3 г/л
Сахар: нет
Ацетон: нет
Билирубин: нет
Уробилин: нет

Микроскопическое исследование

Эпителий плоский: 2–4 в поле зрения
Эпителий почечный: 0–2 в поле зрения
Лейкоциты: 12–14 в поле зрения
Эритроциты: измененные, 20–40 в поле зрения
Цилиндры гиалиновые: 2–4 в поле зрения
Цилиндры зернистые: 1–2 в поле зрения

Дата _____
Подпись _____

Заключение:

**11. Clinical City Hospital #6
URINALYSIS**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Amount of urine: 180.0 ml
Color: is «of meat slops»
Relative density: 1025
Transparency: cloudy
Reaction (Ph): acidic
Protein: 2.3 g/l
Glucose: is not present
Acetone: is not present
Bilirubin: is not present
Urobilin: is not present

Microscopic examination

Flat epithelium: 2–4 in sight
Renal epithelium: 0–2 in sight
Leucocytes: 12–14 in sight
Erythrocytes: 20–40 in sight (changed)
Cylinders (hyaline): 2–4 in sight
Cylinders (granular): 1–2 in sight

Date _____
Signature _____

Conclusion:

**12. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОЧИ**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Количество мочи: 130,0 мл
Цвет: соломенно-желтый
Удельный вес: 1007
Прозрачность: мутная
Реакция: кислая
Белок: 2,3 г/л
Сахар: нет
Ацетон: нет
Билирубин: нет
Уробилин: нет

Микроскопическое исследование

Эпителий плоский: 2–3 в поле зрения
Эпителий почечный: 0–2 в поле зрения
Лейкоциты: 0–2 в поле зрения
Эритроциты: измененные 10–15 в поле зрения
Цилиндры гиалиновые: 2–3 в поле зрения
Цилиндры зернистые: 0–2 в поле зрения
Цилиндры восковидные: 0–1 в поле зрения
Соли: отсутствуют

Дата _____

Подпись _____

Заключение:

**12. Clinical City Hospital #6
URINALYSIS**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Amount of urine: 130.0 ml
Color: straw-yellow
Relative density: 1007
Transparency: cloudy
Reaction (Ph): acidic
Protein: 2.3 g/l
Glucose: is not present
Acetone: is not present
Bilirubin: is not present
Urobilin: is not present

Microscopic examination

Flat epithelium: 2–3 in sight
Renal epithelium: 0–2 in sight
Leucocytes: 0–2 in sight
Erythrocytes: 10–15 in sight (changed)
Cylinders (hyaline): 2–3 in sight
Cylinders (granular): 0–2 in sight
Cylinders (waxy): 0–1 in sight
Salts: negative

Date _____

Signature _____

Conclusion:

**13. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОЧИ**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Количество мочи: 180,0 мл
Цвет: кровянистый
Удельный вес: 1020
Прозрачность: мутная
Реакция: кислая
Белок: 0,015 г/л
Сахар: нет
Ацетон: нет
Билирубин: нет
Уробилин: нет

Микроскопическое исследование

Эпителий плоский: единичные в препарате
Эпителий переходный: отсутствует
Эпителий почечный: отсутствует
Лейкоциты: 2–3 в поле зрения
Эритроциты: свежие, покрывают все поле зрения
Цилиндры: отсутствуют
Соли: оксалаты в значительном количестве

Дата _____
Подпись _____

Заключение:

**13. Clinical City Hospital #6
URINALYSIS**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Amount of urine: 180.0 ml
Color: bloody
Relative density: 1020
Transparency: turbid
Reaction (Ph): acidic
Protein: 0.015 g/l
Glucose: is not present
Acetone: is not present
Bilirubin: is not present
Urobilin: is not present

Microscopic examination

Flat epithelium: 1–2 in sight
Transitional epithelium: negative
Renal epithelium: negative
Leucocytes: 2–3 in sight
Erythrocytes: considerable amount (unchanged (fresh))
Cylinders: negative
Salts: considerable amount

Date _____
Signature _____

Conclusion:

**14. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОЧИ**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Количество мочи: 100,0 мл
Цвет: зеленовато-желтый
Удельный вес: 1018
Прозрачность: прозрачная
Белок: нет
Сахар: нет
Ацетон: нет
Билирубин: положительная проба
Уробилин: отрицательная проба
Реакция: слабокислая

Микроскопическое исследование

Эпителий плоский: 1–2 в поле зрения
Эпителий почечный: отриц.
Лейкоциты: 0–2 в поле зрения
Эритроциты: 0–1 в поле зрения
Цилиндры (гиалиновые, зернистые): отриц.
Цилиндры эпителиальные: отриц.
Цилиндры восковые: отриц.
Слизь: отриц.
Бактерии: отриц.
Соли: отриц.

Дата _____
Подпись _____

Заключение:

**14. Clinical City Hospital #6
URINALYSIS**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Amount of urine: 100.0 ml
Color: greenish-yellow
Relative density: 1018
Transparency: transparent
Protein: is not present
Glucose: is not present
Acetone: is not present
Bilirubin: positive probe
Urobilin: negative probe
Reaction (Ph): faintly acidic

Microscopic examination

Flat epithelium: 1–2 in sight
Renal epithelium: negative
Leucocytes: 0–2 in sight
Erythrocytes: 0–1 in sight
Cylinders (hyaline, granular): negative.
Epithelial cylinders: negative
Waxy cylinders: negative
Mucus: negative
Bacteria: negative
Salts: negative

Date _____
Signature _____

Conclusion:

**15. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОЧИ**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Количество мочи: 120,0 мл
Цвет: пива
Удельный вес: 1020
Прозрачность: прозрачная
Белок: нет
Сахар: нет
Ацетон: нет
Билирубин: положительная проба
Уробилин: положительная проба
Реакция: слабокислая

Микроскопическое исследование

Эпителий плоский: 1–2 в поле зрения
Эпителий почечный: отриц.
Лейкоциты: 0–2 в поле зрения
Эритроциты: 0–1 в поле зрения
Цилиндры (гиалиновые, зернистые): отриц.
Цилиндры эпителиальные: отриц.
Цилиндры восковые: отриц.
Слизь: отриц.
Бактерии: отриц.
Соли: отриц.

Дата _____
Подпись _____

Заключение:

**15. Clinical City Hospital #6
URINALYSIS**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Amount of urine: 120.0 ml
Color: Urine is of beer colour
Relative density: 1020
Transparency: transparent
Protein: is not present
Glucose: is not present
Acetone: is not present
Bilirubin: positive probe
Urobilin: positive probe
Reaction (Ph): faintly acidic

Microscopic examination

Flat epithelium: 1–2 in sight
Renal epithelium: negative
Leucocytes: 0–2 in sight
Erythrocytes: 0–1 in sight
Cylinders (hyaline, granular): negative
Epithelial cylinders: negative
Waxy cylinders: negative
Mucus: negative
Bacteria: negative
Salts: negative

Date _____
Signature _____

Conclusion:

**16. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОЧИ**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Количество мочи: 130,0 мл
Цвет: желтый
Удельный вес: 1022
Прозрачность: прозрачная
Белок: нет
Сахар: нет
Ацетон: нет
Билирубин: отрицательная проба
Уробилин: положительная проба
Реакция: слабокислая

Микроскопическое исследование

Эпителий плоский: 1–2 в поле зрения
Эпителий почечный: отриц.
Лейкоциты: 0–2 в поле зрения
Эритроциты: 0–1 в поле зрения
Цилиндры (гиалиновые, зернистые): отриц.
Цилиндры эпителиальные: отриц.
Цилиндры восковые: отриц.
Слизь: отриц.
Бактерии: отриц.
Соли: отриц.

Дата _____
Подпись _____

Заключение:

**16. Clinical City Hospital #6
URINALYSIS**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Amount of urine: 130.0 ml
Color: yellow
Relative density: 1022
Transparency: transparent
Protein: is not present
Glucose: is not present
Acetone: is not present
Bilirubin: negative probe
Urobilin: positive probe
Reaction (Ph): faintly acidic

Microscopic examination

Flat epithelium: 1–2 in sight
Renal epithelium: negative
Leucocytes: 0–2 in sight
Erythrocytes: 0–1 in sight
Cylinders (hyaline, granular): negative
Epithelial cylinders: negative
Waxy cylinders: negative
Mucus: negative
Bacteria: negative
Salts: negative

Date _____
Signature _____

Conclusion:

17. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОЧИ

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Кол-во мочи: 180,0 мл
Цвет: бесцветная
Удельный вес: 1035
Прозрачность: прозрачная
Белок: нет
Сахар: +++
Ацетон: ++
Билирубин: нет
Уробилин: нет
Реакция: кислая

Микроскопическое исследование

Эпителий плоский: 1-2 в поле зрения
Эпителий почечный: отриц.
Лейкоциты: 0-2 в поле зрения
Эритроциты: 0-1 в поле зрения
Цилиндры (гиалиновые, зернистые): отриц.
Цилиндры эпителиальные: отриц.
Цилиндры восковые: отриц.
Слизь: отриц.
Бактерии: отриц.
Соли: отриц.

Дата _____

Подпись _____

Заключение:

17. Clinical City Hospital #6
URINALYSIS

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Amount of urine: 180.0 ml
Color: colourless
Relative density: 1035
Transparency: transparent
Protein: is not present
Glucose: +++
Acetone: ++
Bilirubin: is not present
Urobilin: is not present
Reaction (Ph): acidic

Microscopic examination

Flat epithelium: 1-2 in sight
Renal epithelium: negative
Leucocytes: 0-2 in sight
Erythrocytes: 0-1 in sight
Cylinders (hyaline, granular): negative
Epithelial cylinders: negative
Waxy cylinders: negative
Mucus: negative
Bacteria: negative
Salts: negative

Date _____

Signature _____

Conclusion:

18. 6-я ГКБ АНАЛИЗ МОЧИ ПО НЕЧИПОРЕНКО	18. Clinical City Hospital #6 NECHIPORENKO'S URINE TEST (sedimentation test)
Ф.И.О.: Иванов И.И. Возраст: 60 лет Отделение: пульмонология Лейкоциты: $2-4 \cdot 10^6/\text{л}$ Эритроциты: $1 \cdot 10^6/\text{л}$ Цилиндры гиалиновые: $0,25 \cdot 10^6/\text{л}$	Patient's name: Ivanov I.I. Age: 60 Department: pulmonology Leucocytes: $2-4 \cdot 10^6/\text{l}$ Erythrocytes: $1 \cdot 10^6/\text{l}$ Cylinders (hyaline): $0.25 \cdot 10^6/\text{l}$
Дата _____ Подпись _____	Date _____ Signature _____
Заключение:	Conclusion:

19. 6-я ГКБ АНАЛИЗ МОЧИ ПО НЕЧИПОРЕНКО	19. Clinical City Hospital #6 NECHIPORENKO'S URINE TEST (sedimentation test)
Ф.И.О.: Иванов И.И. Возраст: 60 лет Отделение: пульмонология Лейкоциты: $8,75 \cdot 10^6/\text{л}$ Эритроциты: $21,5 \cdot 10^6/\text{л}$ Цилиндры гиалиновые: $0,20 \cdot 10^6/\text{л}$	Patient's name: Ivanov I.I. Age: 60 Department: pulmonology Leucocytes: $8.75 \cdot 10^6/\text{l}$ Erythrocytes: $21.5 \cdot 10^6/\text{l}$ Cylinders (hyaline): $0.20 \cdot 10^6/\text{l}$
Дата _____ Подпись _____	Date _____ Signature _____
Заключение:	Conclusion:

20. 6-я ГКБ АНАЛИЗ МОЧИ ПО НЕЧИПОРЕНКО		20. Clinical City Hospital #6 NECHIPORENKO'S URINE TEST (sedimentation test)	
Ф.И.О.:	Иванов И.И.	Возраст: 60 лет	Patient's name: Ivanov I.I. Age: 60
Отделение:	пульмонология		Department: pulmonology
Лейкоциты:	22,5 · 10 ⁶ /л		Leucocytes: 22.5 · 10 ⁶ /l
Эритроциты:	3,7 · 10 ⁶ /л		Erythrocytes: 3.7 · 10 ⁶ /l
Цилиндры гиалиновые:	0,25 · 10 ⁶ /л		Cylinders (hyaline): 0.25 · 10 ⁶ /l
	Дата _____		Date _____
	Подпись _____		Signature _____
Заключение:		Conclusion:	

21. 6-я ГКБ АНАЛИЗ МОЧИ ПО НЕЧИПОРЕНКО		21. Clinical City Hospital #6 NECHIPORENKO'S URINE TEST (sedimentation test)	
Ф.И.О.:	Иванов И.И.	Возраст: 60 лет	Patient's name: Ivanov I.I. Age: 60
Отделение:	пульмонология		Department: pulmonology
Лейкоциты:	7,5 · 10 ⁶ /л		Leucocytes: 7.5 · 10 ⁶ /l
Эритроциты:	5 · 10 ⁶ /л		Erythrocytes: 5 · 10 ⁶ /l
Цилиндры гиалиновые:	0,20 · 10 ⁶ /л		Cylinders (hyaline): 0.20 · 10 ⁶ /l
	Дата _____		Date _____
	Подпись _____		Signature _____
Заключение:		Conclusion:	

22. 6-я ГКБ
ИССЛЕДОВАНИЕ МОЧИ ПО ЗИМНИЦКОМУ

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология

№ порции	Часы	Удельный вес	Кол-во мочи в мл
1	9:00	1018	200,0
2	12:00	1010	300,0
3	15:00	1020	300,0
4	18:00	1019	200,0
5	21:00	1017	100,0
6	24:00	1018	270,0
7	3:00	1018	100,0
8	6:00	1020	100,0

Дневной диурез: 1000,0 мл
Ночной диурез: 500,0 мл
Общий диурез: 1500,0 мл

Дата _____
Подпись _____

Заключение:

22. Clinical City Hospital #6
ZIMNITSKY'S URINE TEST (the 24-hour urine test)

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology

Sample number	Hours	Relative density	Amount of urine, ml
1	9:00 a.m.	1018	200.0
2	12:00 p.m.	1010	300.0
3	15:00 p.m.	1020	300.0
4	18:00 p.m.	1019	200.0
5	21:00 p.m.	1017	100.0
6	24:00 a.m.	1018	270.0
7	3:00 a.m.	1018	100.0
8	6:00 a.m.	1020	100.0

Day diuresis: 1000.0 ml
Night diuresis: 500.0 ml
Total (24-hour) diuresis: 1500.0 ml

Date _____
Signature _____

Conclusion:

23. 6-я ГКБ
ИССЛЕДОВАНИЕ МОЧИ ПО ЗИМНИЦКОМУ

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология

№ порции	Часы	Удельный вес	Кол-во мочи в мл
1	9:00	1007	250,0
2	12:00	1007	230,0
3	15:00	1006	240,0
4	18:00	1007	260,0
5	21:00	1006	460,0
6	24:00	1007	400,0
7	3:00	1006	350,0
8	6:00	1007	410,0

Дневной диурез: 980,0 мл
Ночной диурез: 1560,0 мл
Общий диурез: 2540,0 мл

Дата _____
Подпись _____

Заключение:

23. Clinical City Hospital #6
ZIMNITSKY'S URINE TEST (the 24-hour urine test)

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology

Sample number	Hours	Relative density	Amount of urine, ml
1	9:00 a.m.	1007	250.0
2	12:00 p.m.	1007	230.0
3	15:00 p.m.	1006	240.0
4	18:00 p.m.	1007	260.0
5	21:00 p.m.	1006	460.0
6	24:00 a.m.	1007	400.0
7	3:00 a.m.	1006	350.0
8	6:00 a.m.	1007	410.0

Day diuresis: 980.0 ml
Night diuresis: 1560.0 ml
Total (24-hour) diuresis: 2540.0 ml

Date _____
Signature _____

Conclusion:

24. 6-я ГКБ
ИССЛЕДОВАНИЕ МОЧИ ПО ЗИМНИЦКОМУ

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология

№ порции	Часы	Удельный вес	Кол-во мочи в мл
1	9:00	1014	40,0
2	12:00	1012	50,0
3	15:00	1016	30,0
4	18:00	1013	30,0
5	21:00	1018	90,0
6	24:00	1015	90,0
7	3:00	1013	70,0
8	6:00	1013	50,0

Дневной диурез: 150,0 мл
Ночной диурез: 300,0 мл
Общий диурез: 450,0 мл

Дата _____
Подпись _____

Заключение:

24. Clinical City Hospital #6
ZIMNITSKY'S URINE TEST (the 24-hour urine test)

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology

Sample number	Hours	Relative density	Amount of urine, ml
1	9:00 a.m.	1014	40.0
2	12:00 p.m.	1012	50.0
3	15:00 p.m.	1016	30.0
4	18:00 p.m.	1013	30.0
5	21:00 p.m.	1018	90.0
6	24:00 a.m.	1015	90.0
7	3:00 a.m.	1013	70.0
8	6:00 a.m.	1013	50.0

Day diuresis: 150.0 ml
Night diuresis: 300.0 ml
Total (24-hour) diuresis: 450.0 ml

Date _____
Signature _____

Conclusion:

**25. 6-я ГКБ
ПРОБА РЕБЕРГА**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Креатинин крови: 0,06–0,12 ммоль/л
Креатинин мочи: 0,07–0,20 ммоль/л
Клубочковая фильтрация: 75–125 мл/мин
Канальцевая реабсорбция: 97–99 %

Дата _____
Подпись _____

Заключение:

**25. Clinical City Hospital #6
REBERG'S TEST**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Blood creatinine: 0.06–0.12 mmol/l
Urine creatinine: 0.07–0.20 mmol/l
Glomerular filtration: 75–125 ml/minutes
Canalicular reabsorption: 97–99 %

Date _____
Signature _____

Conclusion:

**26. 6-я ГКБ
ПРОБА РЕБЕРГА**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология
Креатинин крови: 0,2 ммоль/л
Креатинин мочи: 0,15 ммоль/л
Клубочковая фильтрация: 45 мл/мин
Канальцевая реабсорбция: 75 %

Дата _____
Подпись _____

Заключение:

**26. Clinical City Hospital #6
REBERG'S TEST**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology
Blood creatinine: 0.2 mmol/l
Urine creatinine: 0.15 mmol/l
Glomerular filtration: 45 ml/minutes
Canalicular reabsorption: 75 %

Date _____
Signature _____

Conclusion:

**27. 6-я ГКБ
ПРОБА РЕБЕРГА**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет

Отделение: пульмонология

Креатинин крови: 0,19 ммоль/л

Креатинин мочи: 0,20 ммоль/л

Клубочковая фильтрация: 70 мл/мин

Канальцевая реабсорбция: 60 %

Дата _____

Подпись _____

Заключение:

**27. Clinical City Hospital #6
REBERG'S TEST**

Patient's name: Ivanov I.I. **Age:** 60

Department: pulmonology

Blood creatinine: 0.19 mmol/l

Urine creatinine: 0.20 mmol/l

Glomerular filtration: 70 ml/minutes

Canalicular reabsorption: 60 %

Date _____

Signature _____

Conclusion:

**28. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОКРОТЫ**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет

Отделение: пульмонология

Количество: 15 мл

Запах: без запаха

Характер: слизистая

Консистенция: вязкая

Альвеолярные клетки: –

Цвет: бесцветная

Эпителий плоский: 0–1 в препарате

цилиндрический: 1–2 в препарате

Лейкоциты: 5–8 в поле зрения (эозинофилы)

Спиральи Куршмана: 1–2 в поле зрения

Кристаллы Шарко–Лейдена: 2–3 в поле зрения

Дата _____

Подпись _____

Заключение:

**28. Clinical City Hospital #6
EXAMINATION OF THE SPUTUM**

Patient's name: Ivanov I.I. **Age:** 60

Department: pulmonology

Amount: 15 ml

Odor: odorless

Consistence: viscous

Alveolar cells: –

Color: colorless

Flat epithelium: 0–1 in sample

Cylindrical epithelium: 1–2 in sample

Leucocytes: 5–8 in sight (eosinophils)

Spirals of Kurshman: 1–2 in sight

Crystals of Sharko–Lejden: 2-3 in sight

Date _____

Signature _____

Conclusion:

**29. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОКРОТЫ**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология

Количество: 350 мл
Запах: зловонный
Характер: гнойная
Консистенция: полужидкая
Форма: сливкообразная
Цвет: желто-зеленая
Деление на слои: 3
Эпителий плоский: 2–3 в поле зрения
Альвеолярные клетки: 1–2 в поле зрения
Лейкоциты: 40–50 в поле зрения
Эритроциты: 2–3 в поле зрения
Пробки Дитриха: 5–6 в поле зрения

Дата _____
Подпись _____

Заключение:

**29. Clinical City Hospital #6
EXAMINATION OF THE SPUTUM**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology

Amount: 350 ml
Odor: stinking
Character: purulent
Consistence: semifluid
Form: creamy
Color: greenish-yellow
Segmentation layers: 3
Flat epithelium: 2–3 in sight
Alveolar cells: 1–2 in sight
Leucocytes: 40–50 in sight
Erythrocytes: 2–3 in sight
Ditrih plugs: 5–6 in sight

Date _____
Signature _____

Conclusion:

**30. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОКРОТЫ**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология

Количество: 200 мл
Запах: без запаха
Характер: слизисто-гнойно-кровянистая
Консистенция: полужидкая
Форма: монетовидная
Цвет: желтый
Деление на слои: 3
Эпителий плоский: 2–3 в поле зрения
Альвеолярные клетки: 1–2 в поле зрения
Лейкоциты: 20–30 в поле зрения
Эритроциты: 1–2 в поле зрения
Коралловидные эластические волокна: 0–1 в поле зрения
Обызвествленные эластические волокна: 0–1 в поле зрения
**Кристаллы жирных кислот
и мыл, холестерина:** 0-1 в поле зрения
КУБ: 2–3 в 100 полях зрения

Дата _____
Подпись _____

Заключение:

**30. Clinical City Hospital #6
EXAMINATION OF THE SPUTUM**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology

Amount: 200 ml
Odor: odorless
Character: serous-purulent-bloody
Consistence: semifluid
Form: nunniform
Color: yellow
Segmentation layers: 3
Flat epithelium: 2–3 in sight
Alveolar cells: 1–2 in sight
Leucocytes: 20–30 in sight
Erythrocytes: 1–2 in sight
Dendritic elastic fibers: 0–1 in sight
Calcareous elastic fibers: 0–1 in sight
Crystals of fatty acids and soaps, crystals of cholesterol: 0–1 in sight
ARB: 2–3 in 100 sights

Date _____
Signature _____

Conclusion:

**31. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОКРОТЫ**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология

Кол-во: 200 мл
Запах: без запаха
Характер: слизисто-гнойно-кровянистая
Консистенция: полужидкая
Форма: монетовидная
Цвет: желтый
Деление на слои: 3
Эпителий плоский: 2–3 в поле зрения
Альвеолярные клетки: 1–2 в поле зрения
Лейкоциты: 20–30 в поле зрения
Эритроциты: 1–2 в поле зрения
КУБ: 5–6 в 100 полях зрения

Дата _____
Подпись _____

Заключение:

**31. Clinical City Hospital #6
EXAMINATION OF THE SPUTUM**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology

Amount: 200 ml
Odor: odorless
Character: serous-purulent-bloody
Consistence: semifluid
Form: nunniform
Color: yellow
Segmentation layers: 3
Flat epithelium: 2–3 in sample
Alveolar cells: 1–2 in sight
Leucocytes: 20–30 in sight
Erythrocytes: 1–2 in sight
ARB: 5–6 in 100 sights

Date _____
Signature _____

Conclusion:

**32. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОКРОТЫ**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология

Кол-во: 25 мл
Запах: без запаха
Характер: серозно-кровянистая
Консистенция: жидкая
Цвет: кровянистый
Эпителий плоский: 0–1 в поле зрения
Альвеолярные клетки: 1–2 в поле зрения
Лейкоциты: 20–30 в поле зрения
Эритроциты: в большом количестве
Кристаллы гематоидина: в большом количестве
Кристаллы Шарко–Лейдена: нет
Спираль Куршмана: нет
Коралловидные эластические волокна: нет
Обызвествленные эластические волокна: нет
Микобактерии: нет

Дата _____
Подпись _____

Заключение:

**32. Clinical City Hospital #6
EXAMINATION OF THE SPUTUM**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology

Amount: 25 ml
Odor: odorless
Character: serous-bloody
Consistence: fluid
Color: bloody
Flat epithelium: 0–1 in sight
Alveolar cells: 1–2 in sight
Leucocytes: 20–30 in sight
Erythrocytes: considerable quantity
Crystals of hematoidin: considerable quantity
Spirals of Kurshman: are not present
Crystals of Sharko–Lejden: are not present
Dendritic elastic fibers: are not present
Calcareous elastic fibers: are not present
ARB: are not present

Date _____
Signature _____

Conclusion:

**33. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОКРОТЫ**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология

Кол-во: 15 мл
Запах: без запаха
Характер: серозный
Консистенция: жидкая
Форма: пенистая, клейкая
Цвет: розовый
Деление на слои: 2
Эпителий плоский: 2–3 в поле зрения
Лейкоциты: 1–2 в поле зрения
Эритроциты: 4–5 в поле зрения

Дата _____
Подпись _____

Заключение:

**33. Clinical City Hospital #6
EXAMINATION OF THE SPUTUM**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology

Amount: 15 ml
Odor: odorless
Character: serous
Consistence: fluid
Form: foamy, gummous
Color: pink
Segmentation layers: 3
Flat epithelium: 2–3 in sight
Leucocytes: 1–2 in sight
Erythrocytes: 4–5 in sight

Date _____
Signature _____

Conclusion:

**34. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОКРОТЫ**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология

Кол-во: 300 мл
Запах: зловонный
Характер: гнойная
Консистенция: жидкая
Цвет: желто-зеленый
Деление на слои: 3
Эпителий плоский: 2–4 в поле зрения
Альвеолярные клетки: 1–2 в поле зрения
Лейкоциты: в большом количестве
Кристаллы холестерина: 1–2 в поле зрения
Эластические волокна: 2–3 в поле зрения

Дата _____
Подпись _____

Заключение:

**34. Clinical City Hospital #6
EXAMINATION OF THE SPUTUM**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology

Amount: 300 ml
Odor: stinking
Character: serous
Consistence: fluid
Color: greenish-yellow
Segmentation layers: 3
Flat epithelium: 2–4 in sight
Alveolar cells: 1–2 in sight
Leucocytes: considerable quantity
Crystals of cholesterol: 1–2 in sight
Elastic fibers: 2–3 in sight

Date _____
Signature _____

Conclusion:

**35. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОКРОТЫ**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология

Кол-во: 20 мл
Запах: без запаха
Характер: слизисто-гнойная
Консистенция: вязкая
Цвет: ржавый
Эпителий плоский: 2–3 в поле зрения
Альвеолярные клетки: 7–8 в поле зрения
Лейкоциты: 15–20 в поле зрения
Эритроциты: 30–40 в поле зрения
Фибриновые тяжи: 1–2 в поле зрения

Дата _____
Подпись _____

Заключение:

**35. Clinical City Hospital #6
EXAMINATION OF THE SPUTUM**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology

Amount: 20 ml
Odor: odorless
Character: mucopurulent
Consistence: viscous
Color: rusty
Flat epithelium: 2–3 in sight
Alveolar cells: 7–8 in sight
Leucocytes: 15–20 in sight
Erythrocytes: 30–40 in sight
Bands of fibrous tissue: 1–2 in sight

Date _____
Signature _____

Conclusion:

**36. 6-я ГКБ
ОБЩИЙ АНАЛИЗ МОКРОТЫ**

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология

Кол-во: 15 мл
Запах: без запаха
Характер: слизисто-гнойная
Консистенция: вязкая
Цвет: серо-желтый
Эпителий плоский: 2–3 в поле зрения
Альвеолярные клетки: 3–4 в поле зрения
Лейкоциты: 7–8 в поле зрения
Эритроциты: 0–1 в препарате
Слизистые тяжи: 1–2 в поле зрения

Дата _____
Подпись _____

Заключение:

**36. Clinical City Hospital #6
EXAMINATION OF THE SPUTUM**

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology

Amount: 15 ml
Odor: odorless
Character: mucopurulent
Consistence: viscous
Color: grayish-yellow
Flat epithelium: 2–3 in sight
Alveolar cells: 3–4 in sight
Leucocytes: 7–8 in sight
Erythrocytes: 0–1 in sample
Bands of mucous: 1–2 in sight

Date _____
Signature _____

Conclusion:

37. 6-я ГКБ
ИССЛЕДОВАНИЕ ПЛЕВРАЛЬНОЙ ЖИДКОСТИ

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология

Количество: 200 мл
Прозрачность: мутная
Цвет: бурый
Плотность: 1040
Белок: 45 г/л
Проба Ривольта: положительная

Микроскопия

Эритроциты: в большом количестве
Лейкоциты: 20–30 в поле зрения
Кристаллы холестерина: в незначительном количестве

Дата _____
Подпись _____

Заключение:

37. Clinical City Hospital #6
EXAMINATION OF PLEURAL FLUID

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology

Amount: 200 ml
Transparency: cloudy
Color: brown
Relative density: 1040
Protein: 45 g/l
Rivalta's test: positive

Microscopic examination

Leucocytes: 20–30 in sight
Erythrocytes: considerable quantity
Cholesterol crystals: insignificant amount

Date _____
Signature _____

Conclusion:

38. 6-я ГКБ
ИССЛЕДОВАНИЕ ПЛЕВРАЛЬНОЙ ЖИДКОСТИ

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология

Количество: 150 мл
Прозрачность: мутная
Цвет: зелено-желтый
Плотность: 1030
Белок: 40 г/л
Проба Ривольта: положительная

Микроскопия

Эритроциты: 2–4 в поле зрения
Лейкоциты: покрывают все поле зрения (нейтрофилы)

Дата _____
Подпись _____

Заключение:

38. Clinical City Hospital #6
EXAMINATION OF PLEURAL FLUID

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology

Amount: 150 ml
Transparency: cloudy
Color: greenish-yellow
Relative density: 1030
Protein: 40 g/l
Rivalta's test: positive

Microscopic examination

Erythrocytes: 2–4 in sight
Leucocytes: cover all sights (neutrophils)

Date _____
Signature _____

Conclusion:

39. 6-я ГКБ
ИССЛЕДОВАНИЕ ПЛЕВРАЛЬНОЙ ЖИДКОСТИ

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология

Количество: 80 мл
Прозрачность: мутная
Цвет: зелено-желтый
Плотность: 1018
Белок: 40 г/л
Проба Ривольта: положительная

Микроскопия

Эритроциты: 1–2 в поле зрения
Лейкоциты: 20–30 в поле зрения (лимфоциты)
Плазматические клетки: 3–5 в поле зрения

Дата _____
Подпись _____

Заключение:

39. Clinical City Hospital #6
EXAMINATION OF PLEURAL FLUID

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology

Amount: 80 ml
Transparency: cloudy
Color: greenish-yellow
Relative density: 1018
Protein: 40 g/l
Rivalta's test: positive

Microscopic examination

Erythrocytes: 1–2 in sight
Leucocytes: 20–30 in sight (lymphocytes)
Plasmocytes: 3–5 in sight

Date _____
Signature _____

Conclusion:

40. 6-я ГКБ
ИССЛЕДОВАНИЕ ПЛЕВРАЛЬНОЙ ЖИДКОСТИ

Ф.И.О.: Иванов И.И. **Возраст:** 60 лет
Отделение: пульмонология

Количество: 150 мл
Прозрачность: прозрачная
Цвет: лимонно-желтый
Плотность: 1014
Белок: 18 г/л
Проба Ривольта: отрицательная

Микроскопия

Эритроциты: 1–2 в поле зрения
Лейкоциты: 8–12 в поле зрения (лимфоциты)
Эпителиальные клетки: в незначительном количестве

Дата _____
Подпись _____

Заключение:

40. Clinical City Hospital #6
EXAMINATION OF PLEURAL FLUID

Patient's name: Ivanov I.I. **Age:** 60
Department: pulmonology

Amount: 150 ml
Transparency: transparent
Color: citreous
Relative density: 1014
Protein: 18 g/l
Rivalta's test: negative

Microscopic examination

Erythrocytes: 1–2 in sight
Leucocytes: 8–12 in sight (lymphocytes)
Epithelial cells: insignificant amount

Date _____
Signature _____

Conclusion:

41. 6-я ГКБ БИОХИМИЧЕСКИЙ АНАЛИЗ КРОВИ			41. Clinical City Hospital #6 BIOCHEMICAL BLOOD ANALYSIS		
Ф.И.О.: Иванов И.И.	Отделение: пульмонология		Patient's name: Ivanov I.I.	Department: pulmonology	Age: 60
Наименование	Результат	Ед. измерения	Indicator	Result	Unit
Мочевина	2,5–8,33	ммоль/л	Urea	2.5-8.33	mmol/l
Креатинин	0,044–0,12	ммоль/л	Creatinine	0.044-0.12	mmol/l
Общий белок	60–87 (от 65 лет)	г/л	Total protein	60–87 (from 65 y.o.)	g/l
	65-87 (от 3 до 65 лет)	г/л		65–87 (3 to 65 y.o.)	g/l
Альбумин	35–55	г/л	Albumen	35–55	g/l
Глюкоза	3,9–6,4	ммоль/л	Glucose	3.9-6.4	mmol/l
Билирубин общий	5–21	мкмоль/л	Total bilirubin	5-21	mcmmol/l
Билирубин прямой	0,53–5,1	мкмоль/л	Direct bilirubin	0.53-5.1	mcmmol/l
Билирубин непрямой	6,45–15,42	мкмоль/л	Indirect bilirubin	6.45-15.42	mcmmol/l
АЛТ	5–45	е/л	ALT	5-45	u/l
АСТ	Менее 45	е/л	AST	less than 45	u/l
ГГТП	Жен. 4–38	е/л	GGTP	for women 4–38	u/l
	Муж. 2–55	е/л		for men 2–55	u/l
Щелочная фосфатаза	Жен. до 240	е/л	Alkaline phosphatase	for women to 240	u/l
	Муж. до 270	е/л		for men to 270	u/l
Амилаза	22–120	е/л	Amylase	22–120	u/l
С-РБ	0–6	мг/л	CRP	0–6	mg/l
Мочевая кислота	Жен. 0,24–0,36	ммоль/л	Uric acid	for women 0.24–0.36	mmol/l
	Муж. 0,3–0,42	ммоль/л		for men 0.3–0.42	mmol/l
КФК	20–174	е/л	Creatine phosphokinase(CPK)	20–174	u/l
КФК-МВ	Менее 24	е/л	Creatine phosphokinase-MB(CPK-MB)	less than 24	u/l
Калий	3–5,4	ммоль/л	Potassium	3–5.4	mmol/l
Кальций	2–2,75	ммоль/л	Calcium	2–2.75	mmol/l
Натрий	130–150	ммоль/л	Sodium	130–150	mmol/l
Хлориды	95–110	ммоль/л	Chloride	95–110	mmol/l
	Дата _____			Date _____	
	Подпись _____			Signature _____	
Заключение:			Conclusion:		

**42. 6-я ГКБ
БИОХИМИЧЕСКИЙ АНАЛИЗ КРОВИ**

Ф.И.О.: Иванов И.И. **Отделение:** пульмонология

Наименование	Результат	Ед. измерения
Мочевина	16,4	ммоль/л
Креатинин	0,189	ммоль/л
Общий белок	56	г/л
Альбумин	23	г/л
Глюкоза	5,6	ммоль/л
Билирубин общий	10	мкмоль/л
АЛТ	13	е/л
АСТ	16	е/л
С-РБ	6	мг/л
Калий	5,7	ммоль/л
Кальций	2,25	ммоль/л
Натрий	131	ммоль/л
Хлориды	100	ммоль/л

Дата _____
Подпись _____

Заключение:

**42. Clinical City Hospital #6
BIOCHEMICAL BLOOD ANALYSIS**

Patient's name: Ivanov I.I. **Department:** pulmonology **Age:** 60

Indicator	Result	Unit
Urea	16.4	mmol/l
Creatinine	0.189	mmol/l
Total protein	56	g/l
Albumen	23	g/l
Glucose	5.6	mmol/l
Total bilirubin	10	mcmmol/l
ALT	13	u/l
AST	16	u/l
CRP	6	mg/l
Potassium	5.7	mmol/l
Calcium	2.25	mmol/l
Sodium	131	mmol/l
Chloride	100	mmol/l

Date _____
Signature _____

Conclusion:

**43. 6-я ГКБ
БИОХИМИЧЕСКИЙ АНАЛИЗ КРОВИ**

Ф.И.О.: Иванов И.И. **Отделение:** пульмонология

Наименование	Результат	Ед. измерения
Мочевина	4,2	ммоль/л
Креатинин	0,087	ммоль/л
Общий белок	73	г/л
Альбумин	38	г/л
Глюкоза	4,8	ммоль/л
Билирубин общий	20,5	мкмоль/л
Билирубин прямой	4,5	мкмоль/л
Билирубин непрямой	16	мкмоль/л
АЛТ	278	е/л
АСТ	156	е/л
ГГТП	378	е/л
Калий	4,7	ммоль/л
Кальций	2,23	ммоль/л
Натрий	141	ммоль/л
Хлориды	105	ммоль/л

Дата _____
Подпись _____

Заключение:

**43. Clinical City Hospital #6
BIOCHEMICAL BLOOD ANALYSIS**

Patient's name: Ivanov I.I. **Department:** pulmonology **Age:** 60

Indicator	Result	Unit
Urea	4.2	mmol/l
Creatinine	0.087	mmol/l
Total protein	73	g/l
Albumen	38	g/l
Glucose	4.8	mmol/l
Total bilirubin	20.5	mcmol/l
Direct bilirubin	4.5	mcmol/l
Indirect bilirubin	16	mcmol/l
ALT	278	u/l
AST	156	u/l
GGTP	378	u/l
Potassium	4.7	mmol/l
Calcium	2.23	mmol/l
Sodium	141	mmol/l
Chloride	105	mmol/l

Date _____
Signature _____

Conclusion:

**44. 6-я ГКБ
БИОХИМИЧЕСКИЙ АНАЛИЗ КРОВИ**

Ф.И.О.: Иванов И.И. **Отделение:** пульмонология

Наименование	Результат	Ед. измерения
Мочевина	6,5	ммоль/л
Креатинин	0,098	ммоль/л
Общий белок	69	г/л
Альбумин	38	г/л
Глюкоза	4,0	ммоль/л
Билирубин общий	38,5	мкмоль/л
Билирубин прямой	17,5	мкмоль/л
Билирубин непрямой	21	мкмоль/л
АЛТ	43	е/л
АСТ	42	е/л
ГГТП	478	е/л
Щелочная фосфатаза	575	е/л
Калий	4,4	ммоль/л
Кальций	2,2	ммоль/л
Натрий	134	ммоль/л
Хлориды	107	ммоль/л
Общий холестерин	8,2	ммоль/л

Дата _____
Подпись _____

Заключение:

**44. Clinical City Hospital #6
BIOCHEMICAL BLOOD ANALYSIS**

Patient's name: Ivanov I.I. **Department:** pulmonology **Age:** 60

Indicator	Result	Unit
Urea	6.5	mmol/l
Creatinine	0.098	mmol/l
Total protein	69	g/l
Albumen	38	g/l
Glucose	4.0	mmol/l
Total bilirubin	38.5	mcmol/l
Direct bilirubin	17.5	mcmol/l
Indirect bilirubin	21	mcmol/l
ALT	43	u/l
AST	42	u/l
GGTP	478	u/l
Alkaline phosphatase	575	u/l
Potassium	4.4	mmol/l
Calcium	2.2	mmol/l
Sodium	134	mmol/l
Chloride	107	mmol/l
Total Cholesterol	8.2	mmol/l

Date _____
Signature _____

Conclusion:

**45. 6-я ГКБ
БИОХИМИЧЕСКИЙ АНАЛИЗ КРОВИ**

Ф.И.О.: Иванов И.И. **Отделение:** пульмонология

Наименование	Результат	Ед. измерения
Мочевина	3,9	ммоль/л
Креатинин	0,098	ммоль/л
Общий белок	56	г/л
Альбумин	23	г/л
Глюкоза	5,7	ммоль/л
Билирубин общий	28,6	мкмоль/л
Билирубин прямой	14	мкмоль/л
Билирубин не прямой	14,6	мкмоль/л
АЛТ	68	е/л
АСТ	73	е/л
ГГТП	278	е/л
Щелочная фосфатаза	297	е/л
Калий	4,4	ммоль/л
Кальций	2,26	ммоль/л
Натрий	130	ммоль/л
Хлориды	103	ммоль/л
Холестерин	2,3	ммоль/л

Дата _____
Подпись _____

Заключение:

**45. Clinical City Hospital #6
BIOCHEMICAL BLOOD ANALYSIS**

Patient's name: Ivanov I.I. **Department:** pulmonology **Age:** 60

Indicator	Result	Unit
Urea	3.9	mmol/l
Creatinine	0.098	mmol/l
Total protein	56	g/l
Albumen	23	g/l
Glucose	5.7	mmol/l
Total bilirubin	28.6	mcmol/l
Direct bilirubin	14	mcmol/l
Indirect bilirubin	14.6	mcmol/l
ALT	68	u/l
AST	73	u/l
GGTP	278	u/l
Alkaline phosphatase	297	u/l
Potassium	4.4	mmol/l
Calcium	2.26	mmol/l
Sodium	130	mmol/l
Chloride	103	mmol/l
Total Cholesterol	2.3	mmol/l

Date _____
Signature _____

Conclusion:

46. 6-я ГКБ ЛИПИДОГРАММА			46. Clinical City Hospital #6 LIPID PROFILE		
Ф.И.О.: Иванов И.И.	Отделение:	пульмонология	Patient's name: Ivanov I.I.	Department: pulmonology	Age: 60
Наименование	Результат	Ед. измерения	Indicator	Result	Unit
Общий холестерин	2,82–5,2	ммоль/л	Total cholesterol	2.82–5.2	mmol/l
ЛПНП	Менее 3,36	ммоль/л	LDL	less than 3.36	mmol/l
ЛПВП	0,78–1,63	ммоль/л	HDL	0.78–1.63	mmol/l
Триглицериды	0,42–1,67	ммоль/л	Triglycerids	0.42–1.67	mmol/l
Коэффициент атерогенности	2–3	ммоль	Aterogenic index	2–3	mmol/l
	Дата _____			Date _____	
	Подпись _____			Signature _____	
Заключение:			Conclusion:		

47. 6-я ГКБ ЛИПИДОГРАММА			47. Clinical City Hospital #6 LIPID PROFILE		
Ф.И.О.: Иванов И.И.	Отделение:	пульмонология	Patient's name: Ivanov I.I.	Department: pulmonology	Age: 60
Наименование	Результат	Ед. измерения	Indicator	Result	Unit
Общий холестерин	8,3	ммоль/л	Total cholesterol	8.3	mmol/l
ЛПНП	5,78	ммоль/л	LDL	5.78	mmol/l
ЛПВП	0,62	ммоль/л	HDL	0.62	mmol/l
Триглицериды	2,9	ммоль/л	Triglycerids	2.9	mmol/l
КА	12,4	ммоль/л	Aterogenic index	12.4	mmol/l
	Дата _____			Date _____	
	Подпись _____			Signature _____	
Заключение:			Conclusion:		

**48. 6-я ГКБ
ЛИПИДОГРАММА**

Ф.И.О.: Иванов И.И. **Отделение:** пульмонология

Наименование	Результат	Ед. измерения
Общий холестерин	2,2	ммоль/л
ЛПНП	1,12	ммоль/л
ЛПВП	1,0	ммоль/л
Триглицериды	0,67	ммоль/л
КА	1,2	ммоль/л

Дата _____

Подпись _____

Заключение:

**48. Clinical City Hospital #6
LIPID PROFILE**

Patient's name: Ivanov I.I. **Department:** pulmonology **Age:** 60

Indicator	Result	Unit
Total cholesterol	2.2	mmol/l
LDL	1.12	mmol/l
HDL	1.0	mmol/l
Triglycerids	0.67	mmol/l
Aterogenic index	1.2	mmol/l

Date _____

Signature _____

Conclusion:

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