Bukhara Medical Institute named after Abu Ali ibn Sino

Department of Propaedeutics of Internal Medicine

FACULTY OF METHODOLOGY FOR 2 YEAR STUDENTS OF THE FACULTY OF TREATMENT AND MEDICAL PEDAGOGY FOR 2021-22 ACADEMIC YEAR

BUKHARA-2021

MINISTRY OF HIGHER AND SECONDARY SPECIAL EDUCATION OF THE REPUBLIC OF UZBEKISTAN
MINISTRY OF HEALTH OF THE REPUBLIC OF UZBEKISTAN
BUKHARA STATE MEDICAL INSTITUTE NAMED AFTER ABU ALI IBN SINO
DEPARTMENT OF PROPEDYTICS OF INTERNAL DISEASES

"I APPROVE"
Vice-Rector for Academic Affairs
Dots. G.J. Jarilkasinova _____
«_____» _____2021

2nd year Faculty of Medicine and Medical Pedagogy
The subject "Propaedeutics of Internal Medicine" for students educational-methodical complex

Bukhara - 2021

Department of Propaedeutics of Internal Medicine, Bukhara State Medical Institute named after Abu Ali ibn Sino, Ministry of Higher and Secondary Special Education of the Republic of Uzbekistan

Education 500,000 -Health and Social Security
Education 510000 -Health
Field of study 5510100 -Medical work
5111000 -Professional training
5510200 -Pediatrics

Department of Propaedeutics of Internal Medicine
mudiri, t.f.d., dots. Nurboyev F.E.

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Considered at the meeting of the Scientific and Methodological Council of Bukhara Medical Institute No 2021 №_2__

Content

Annotation

This educational-methodical complex is designed for use by students of 2 courses of treatment, medical pedagogical faculties and is based on the standard program. This educational-methodical complex corresponds to the directions of Education 500000 -Health and Social Security, Education 510000 -Health, Education 5510100 -Medical work. This textbook contains the full text of all lectures presented in the sample program. The complex covers the topics of diseases of the respiratory system, cardiovascular system. Assessments on the topics (consisting of two tests, concept analysis, case study and practical skills), structured tests on all topics (including complex tests) for the quality of practical training in this complex and the independent preparation and solution of students existing) as well as problematic issues (consisting of a series of questions). The set includes texts of all practical topics for students to read, as well as questions on the topics. The technological map of the practical training is well-illustrated for the practical training. This set of teaching methods provides students with step-by-step techniques to apply their practical skills on all topics so that they can practice and learn. Questions on the topics are provided so that students can prepare for independent work. In the glossary, I have introduced medical terminology and their concept.

We believe that this set of teaching materials will be accessible to students and that they will gain enough knowledge.

"Propedeutics of Internal Medicine"
Designed for the 2021/2022 academic year
SILLABUSI

Fanning qisqacha tavsifi			
Name and location of the university:	Bukhara Medical Institute		Navoi street. 1
Chair:	Propaedeutics of internal diseases		As part of the Faculty of Foreign Languages
Field and direction of education:	510000 - "Health" education 55107100 - "Education"	Treatment	
Information about the teacher who teaches the subject (course):	Narziev Shamsidin Saypilloevich	**e-mail:**	ikp.uz@mail.ru
Course time and place:	Regional Multidisciplinary	**Course duration:**	February 2021 - 30.06.2022

	Department of Gastroenterology, Nephrology and Hematology of the Medical Center 3,4,5		
Working time based on individual schedule:	All days of the week from 08.30 to 13.20		
Dedicated to science Clocks	**Classroom hours**		**Independent study: 72**
	Report: **10**	**Practice 80**	
Relationship of science with other disciplines (prerequisites):	It is closely related to human anatomy, normal physiology, general pathology, general physiology, nursing theory, nursing work in therapy, and clinical pharmacology.		
(postrequisites):	"Propaedeutics of Internal Medicine"		

The content of science

Relevance and summary of science:	**Goals and objectives of the subject** The purpose of teaching the subject is to acquaint students with the science of propaedeutics and to acquaint them with the methods of medical deontology, iatrogeny, clinical examination of patients (interrogation, examination, palpation, percussion, auscultation) step-by-step examination of organs and systems , the study of the basic laws of syndromes and symptoms in the system, the acquisition of skills of laboratory and instrumental examination and interpretation of azoles. Tasks of science: - To teach students medical techniques or methods of examination - To teach the basic laws of syndromes and symptoms - Teach step-by-step inspection of organs and systems - Training in laboratory and instability testing and interpretation of organs - To be able to make diagnostic conclusions based on the results of the examination - To study the questions of nosological forms of internal diseases - To teach the basic principles of treatment of internal diseases
Requirements for students	- Respect for the teacher and teammates; - Compliance with the internal disciplinary rules of the Institute;

	- Turn off your cell phone during class; - Timely and quality performance of assigned homework and independent work assignments; - Be in medical uniform in class; - Keeping classrooms clean; - Plagiarism is strictly prohibited; - Attendance is mandatory, missed classes must be re-learned; - Pre-preparation and active participation in lessons; - The student is not allowed to enter the classroom after the teacher; - Assignments for practical training should be completed as required and reflected in the album and signed by the teacher. - If the student is dissatisfied with the rating score, 1 day from the date of publication may appeal to the Appeals Commission.
The order of the relationship by e-mail	Communication between the faculty and the student can also be done via e-mail, the assessment is not discussed over the phone, the assessment is conducted only on the territory of the institute, in separate rooms and during the lesson. E-mail opening hours are from 15.00 to 20.00

3. Number of study hours

Soat hajmi	Distribution of the amount of workload by classroom hours (hours)				
	Jami 164 TP	Lecture 10	Practical training 40	Clinical training 40	Independent the work 72

ЎЗБЕКИСТОН РЕСПУБЛИКАСИ
ОЛИЙ ВА ЎРТА МАХСУС ТАЪЛИМ ВАЗИРЛИГИ

Рўйхатга олинди:

№ БД-_____
2018 йил "18" 08

Олий ва ўрта махсус таълим
вазирлиги
_____
2018 йил "___" _____

ИЧКИ КАСАЛЛИКЛАР ПРОПЕДЕВТИКАСИ

ФАН ДАСТУРИ

Билим соҳаси:	500000	–Соғлиқни сақлаш ва ижтимоий таъминот
Таълим соҳаси:	110000	– Педагогика
	510000	– Согликни сақлаш
Таълим йўналишлари:	5510100	– Даволаш иши
	5510300	– Тиббий – профилактика иши
	5111000	– Касбий таълим (5510100 – Даволаш иши)

Тошкент – 2018

The relevance of science

This program is based on the State Educational Standard and the General Practitioner Training Program, designed to teach medical students the subject of propaedeutics of internal medicine.

Propaedeutics of internal medicine teaches the symptoms and syndromes of all diseases, diseases and new methods of examination used in the diagnosis of diseases of internal organs, diagnosis and writing a medical report of the patient. The teaching of symptomatology and diagnostics is inseparable from the teaching of specific pathology, i.e., on the one hand, there must be no difference between the ways of learning and the methods of cognition, on the other hand, objective cognition. The basics of symptomatology, diagnosis, and specific pathology should be studied in an integral relationship. The study of major therapeutic diseases is an illustration of the clinical significance of symptoms. Students become accustomed to diagnostic methods to analyze a patient's medical history. From the first days of work in the clinic, the student should also learn the basics of medical deontology, which is one of the tasks of the propaedeutics of internal medicine. Knowledge of propaedeutics is necessary for the subsequent study of other clinical disciplines as well as therapy. Knowledge of the symptoms of the disease and the basic diagnostic methods, diagnostic methods should be available not only to the therapist, but also to the surgeon, gynecologist, neuropathologist and all other clinical specialists.

The bachelor prepares for independent work, ie to become a general practitioner, by mastering theoretical, methodological, organizational and practical skills in the field of propaedeutics of internal medicine, as well as to analyze and diagnose the results of clinical, laboratory, functional and instrumental examinations.

In the process of studying the subject of propaedeutics of internal medicine is to form in students modern concepts of disease, diagnosis, diagnostic principles, mechanisms of origin of symptoms, syndromes, to inculcate in students the basics of medical ethics and ethics and deontology.

Through the science of internal medicine propaedeutics, the student learns the causes of the main pathological processes in the body and the mechanisms of their development, understanding of the main symptoms and syndromes, physical examination, examination, palpation, hearing, blood pressure measurement, pulse detection, ECG recording, blood , urine, feces, sputum, gastric juice, duodenal product, general analysis of pleural fluid and their clinical evaluation, to take resuscitation measures in case of clinical death, to know the basics of medical deontology.

Interrelation of science with other subjects in the curriculum and methodological affiliation

The subject "Propaedeutics of Internal Medicine" is a course included in the block of general professional disciplines and is taught in the 5th, 6th semesters of the 3rd year of medical, medical and pedagogical faculties.

The science of internal medicine propaedeutics belongs to the category of clinical sciences, which is taught in all areas of medical undergraduate education. Propaedeutics of internal medicine - is a clinical science. Clinical and natural sciences (vertical anatomy, normal physiology, general biology and medical genetics, vertical integration with biochemistry and microbiology and pathological

anatomy, pathological physiology, general surgery and pharmacology) are included in the curriculum for the implementation of this program. horizontal) is based on integration.

The role of science in science, economics and production

Propaedeutics of internal medicine is one of the important disciplines in the formation of the basis of medical knowledge in general practice physician.

To carry out research activities aimed at studying the prevalence and course of internal diseases of the UAS, early diagnosis, treatment, prevention of the spread of internal diseases among the population and forecasting the course of the disease for the application of professional activities; diagnosis and treatment in the treatment and prevention organizations of the health system (therapeutic departments of central district, city, regional, republican hospitals, multidisciplinary central city polyclinics, emergency care centers and stations, maternal and child health care organizations, sanatoriums) It is important to address the main tasks of patients' medical problems with the widespread use of modern methods; including the solution of complex problems in the field of internal medicine at all levels of the health system.

Modern information and pedagogical technologies in science teaching as well as the design of training sessions

The use of advanced and modern teaching methods, the introduction of new information and pedagogical technologies is important for students to master the subject "Propaedeutics of Internal Medicine." Textbooks, teaching aids, lecture notes, handouts, electronic materials, case technologies are used in the study of the subject. Interactive teaching methods (visual, problem-based, author's lectures, two-way analysis, cluster, Venn, Syncway, etc.) are used in lectures and seminars.

On the basis of the principles of pedagogical technology, the teacher of science develops projects of lessons on a subject "Propaedeutics of internal diseases".

Fan module program (module syllabus)

Full name of the course:	**Propaedeutics of internal diseases**		
Курснинг қисқача номи:	IKP	Code: IKP	
Chair:	**Propaedeutics of internal diseases**		
Teacher information:	Ф.И.Ш.	E-mail	
Semester and course duration	5.6 semester 18/18 weeks		
	Faculty	Treatment	tib.ped.
Size of training hours:	**total:**	**250**	**250**
	as well as:		
	report	**32**	**32**
	seminar		
	practical	**130**	**130**
	independent learning	**88**	**88**
Course status	General professional science block		

Preliminary preparation:	The course is based on the knowledge of "Anatomy", "Normal Physiology", "Pathological Physiology", "Pathological Anatomy", "Pharmacology", "Histology".

Subject and content of science:

The purpose of teaching the subject - to acquaint students with the science of propaedeutics and to acquaint students with the methods of medical deontology, iatrogeny, clinical examination (interrogation, examination, palpation, percussion, auscultation), step-by-step examination of organs and systems; ,, is the acquisition of skills in laboratory and instrumental examination and interpretation of members.

The purpose of the science - the main purpose of the program on ICP is to teach future general practitioners (UAS) how to check the condition of internal organs and thus assess the condition of the body, to teach methods of teaching internal medicine in medical institutions.

The task of science is to teach its students:

- To teach the basic laws of syndromes and symptoms
- training of step-by-step inspection of the condition of members and systems
- Laboratory and instrumental tests and interpretation of their results
- Obtain a diagnostic conclusion based on the results of the examination,
- To study the questions of nosological forms of internal diseases
- To teach the basic principles of treatment of internal diseases

In the process of mastering the subject "Propaedeutics of Internal Medicine" bachelor:

- Anatomy of internal organs;
- Physiology of internal organs;
- responsibilities of internal members;
- have an idea of the methods of inspection of internal organs;
- Palpation of the chest
- Upka's comparative percussion
- Topographic percussion of Upka
- Upka auscultation
- Palpation of the heart area
- Cardiac percussion (relative boogie boundaries)
- Cardiac percussion (absolute boogie limits)
- Cardiac auscultation
- AD measurement
- Pulse check
- ECG methods
- Normal ECG
- Superficial palpation of the abdomen
- Deep palpation of the abdomen
- Palpation of the liver
- Liver percussion according to Kurlov
- Kidney palpation
- Palpation of lymph nodes
- Palpation and percussion of the spleen
- Must have analytical skills;
- Maintaining a medical history of patients treated in an inpatient setting
- - Must be able to communicate with patients.

Thematic structure and content of the course

T/p	Subject	Lecture	Practical	Independent work
Faculty of Medicine, Medical Pedagogy				
1.	1. To acquaint students with the task of IKP science. History of development of science, goals and objectives. Types and methods of diagnosis.	2/2	6	4

	Basic methods of clinical examination of the patient: subjective and objective Scheme of medical history. Independent work of students with the patient. General examination of the patient: general condition, consciousness, condition, body composition. Examination of the patient by body parts: head, face, neck, skin, subcutaneous fat layers, tumors, muscles, joints, bones, and limbs. Thermometry. Anthropometry. A general understanding of laboratory and instrumental examinations. Importance of modern laboratory and instrumental examination methods.			
2.	Examination of patients with respiratory diseases. Inquiry. Primary and secondary complaints. Chest examination. Palpation - as a method of objective examination. Palpation of lymph nodes and chest. Percussion as a method of objective examination. Comparative and topographic percussion of the lungs. In norm and pathology.	2	6	3
3.	Auscultation of the lungs. Techniques and rules. Primary (bronchial and vesicular) and secondary (wheezing, crepitation, pleural friction noise) breathing noises. Modern inspection methods. Methods of radiological examination: bronchoscopy, bronchography, tomography. Methods of functional examination of the lungs: spirometry, spirography, pneumotachometry. Examination of sputum.	2	6	4
4.	Impaired bronchial permeability syndrome. Utkirvasurunkalibronchitis. Obstructive and nonobstructive. Flatulence syndrome (bronchial asthma, pulmonary emphysema). Examination of obstructive pulmonary disease. Diagnostics. General understanding of the etiology and pathogenesis Basic principles of treatment		6	4
5.	Lung tissue hardening (thickening) syndrome (in the example of crouposis and focal pneumonia). Pulmonary cavity syndrome (in the case of pulmonary abscess and bronchiectasis). Diagnostics. General concept of etiology and pathogenesis. Basic principles of treatment.		6	4
6.	Syndrome of accumulation of air and fluid in the pleural cavity (pleurisy, hydrothorax, pneumothorax). Shortness of breath. Diagnostics. General concept of etiology and pathogenesis Basic principles of treatment. Curation of patients. Write a medical history.		6	4
7.	Methods of examination of patients with cardiovascular diseases. Semiotics. Inquiry: main complaints. Pathogenesis. Examination (general condition, color of skin coatings, swelling, examination of the neck). Diagnostic value. Examination of the heart area and peripheral	2	6	4

	vascular area. Palpation of the heart area. Diagnostic value.			
8.	Cardiac percussion. Determining the relative and absolute limit of heart failure in a healthy person. Heart configuration. Determining the relative and absolute limit of heart failure in pathology. Determination of cardiac configuration in pathology. Diagnostic value. X-ray analysis.		6	4
9.	Auscultation of the heart. Auscultation rules. Hearing heart tones is normal. The order and points of hearing tones. Changes in tone (increase, decrease) in cardiovascular pathology. Fragmentation and splitting of tones. Diagnostic value. Additional tones in cardiovascular disease.	2	6	4
10.	Cardiac interactions, mechanism of formation, characteristics (in pathology). Pulse check. Features of the pulse in a healthy person and in cardiovascular pathology. Diagnostic value. Blood pressure. Step-by-step measurement of blood pressure. The concept of hypertension and hypotension. Diagnostic value. Modern 3laboratory and instrumental inspection methods.		6	4
11.	Electrocardiography (ECG), recording method and normal ECG analysis. ECG in disorders of cardiac automatism and excitability. ECG with impaired cardiac conduction and contractile function.	2	6	4
12.	Basic clinical syndromes. Coronary insufficiency syndrome. Circulatory failure syndrome. Cardiac asthma, pulmonary edema. Vascular insufficiency syndrome. Arterial hypertension syndrome. Cardiac arrhythmia syndrome. Cardiomegaly syndrome. Hypertension syndrome in the small mining cycle.		6	4
13	Symptomatology of rheumatic fever and primary rheumatic heart disease. Symptoms and early diagnosis of primary rheumatic heart disease. Mitral regurgitation. Mitral valve insufficiency and stenosis. Diagnostics. Basic principles of treatment.	2	6	4
14	Symptomatology of septic endocarditis. Symptomatology of aortic regurgitation. Aortic valve insufficiency and stenosis. Diagnostics. Basic principles of treatment.	2	6	4
15	Symptomatology of hypertension. The concept of symptomatic hypertension. Diagnostics. Basic principles of treatment. The concept of ischemic heart disease (IHD). Classification of angina, symptomatology. Symptomatology of myocardial infarction. Diagnostics. Basic principles of treatment. Curation of patients. Record medical history №2.	2	6	4
16	Methods of examination of patients with diseases of the digestive organs. Inquiry. The main	2	6	4

	complaints. Mechanism of symptoms and diagnostic significance. General examination and examination of the oral cavity, examination of the abdomen. Palpation of the abdominal organs (superficial and deep). Diagnostic value. Modern laboratory and instrumental methods of examination. Basic clinical syndromes.			
17	Symptomatology of gastritis (acute and chronic). Symptomatology of gastric and duodenal ulcers. Diagnosis of enteritis and colitis. Basic principles of treatment.		6	4
18	Examination of patients with diseases of the liver and biliary tract. Inquiry. The main complaints, diagnostic value. Examination, liver percussion (according to Kurlov), palpation. Diagnostic value.	2	6	4
19	Main clinical syndromes: jaundice, portal hypertension, liver failure. Modern laboratory and instrumental methods of examination. Diagnosis of chronic hepatitis and cholecystitis. Symptomatology of liver cirrhosis. Basic principles of treatment		6	4
20	Methods of examination of patients with kidney disease. Inquiry, main complaints. Examination, palpation of the kidneys, urination (Pasternatsky's symptom). Modern laboratory and instrumental methods of examination. Diagnosis of acute and chronic pyelonephritis and glomerulonephritis. Symptoms of renal failure (acute and chronic). Basic principles of treatment. Crushing medical history № 3.	2	6	4
21	Methods of examination of patients with diseases of the circulatory system (main complaints, anamnesis, autopsy), palpation of the spleen. Clinical laboratory. General analysis of blood. Basic clinical syndromes. Diagnosis of anemia. Diagnosis of leukemia Basic principles of treatment.	2	6	4
22	Inquiry of patients with diseases of the endocrine glands, anamnesis. Symptomatology of thyroid disease. Diagnosis of diabetes.	2/2	4	4
Total: 250		**32**	**130**	**88**

Teaching and learning methods:	Lectures, practical classes, independent work (round table, case study, master classes)		
Independent work:	Study projects, group presentations, abstracts, cases, reports, crossword puzzles, posters, brochures, essays, etc.		
Time to submit tips and assignments	Days	Time	Aud.
1.			
2.			
3.			

Methods, criteria and procedure for assessing knowledge:

The scores of JN and ON are given in the work program

Evaluation methods	Tests, written assignments, oral questionnaires, presentations, etc.
Monitoring and evaluation of students' knowledge of science	**Forms of control** Types of assessment can be in the form of surveys, oral questions, written assignments, quizzes, or other forms, depending on the nature of the subject. **Criteria for assessing students' knowledge of science**

Ball	The level of knowledge of the student
86 - 100 ball	- The student is always prepared for the lessons, very active, well versed in the program materials, able to draw conclusions and decisions, think creatively, apply knowledge in practice; - The student is able to find new methods and directions that will help to find a solution, to understand the essence of the educational material, choosing the scope of application of relevant knowledge in solving creative problems; - The student looks for ways to solve the presented educational problems, knows and can tell the program materials and has an idea.
71 - 85 ball	- The student, knowing the relevance of the studied phenomena and the ability to describe the object, can solve problems by revealing the causal relationship, connect the studied theoretical knowledge with practice and make independent observations; - the ability to apply the content of knowledge and skills, to solve problems of the same type, to write and remember, to apply knowledge in practice; - The student is prepared for the lessons, knows the program materials, understands the essence and has imagination.
55 - 70 ball	- is able to perform tasks on the basis of what the student has heard, the examples given to them, the algorithms and instructions provided, understands the essence; - The student is able to distinguish a certain object on the basis of a number of signs, describe it and explain the learning material and have an idea.
0 - 54 ball	- The student has no imagination; - The student does not know the program materials.

Science lectures, videos: Videos on each topic will be shown (OUM)

Glossaries: A glossary has been created for each topic.

Information resource database:

Basic literature

1. GadaevA; Karimov M.Sh ..; "Propaedeutics of internal diseases" T. 2012;
2. Muxin N.A., Moiseev V.I. "Propedevtika vnutrennix bolezney", M. 2000.
3. Vasilenko V.X .. Grebenev A.L “Propedevtika vnutrennix bolezney”, M.1989

MAIN PART
The content of science lectures

for medical and medical pedagogy faculties

1-module. Introduction. History of the development of internal medicine. The science of propaedeutics of internal medicine. Purpose, tasks. Understanding semiotics, symptomatology, and diagnosis.

Propaedeutics of internal medicine teaches the symptoms and syndromes of all diseases, diseases and new methods of examination used in the diagnosis of diseases of internal organs, diagnosis and writing a medical report of the patient. The teaching of symptomatology and diagnostics is inseparable from the teaching of specific pathology, i.e., on the one hand, there must be no difference between the ways of learning and the methods of cognition, on the other hand, objective cognition.

2-module. Methods of clinical examination of patients. Inquiry. Complaints. Life history. Physical examination methods: examination, palpation, percussion, auscultation.

The basics of symptomatology, diagnosis, and specific pathology should be studied in an integral relationship. The study of major therapeutic diseases is an illustration of the clinical significance of symptoms. Students become accustomed to diagnostic methods to analyze a patient's medical history. From the first days of work in the clinic, the student should also learn the basics of medical deontology, which is one of the tasks of the propaedeutics of internal medicine. Knowledge of propaedeutics is necessary for the subsequent study of other clinical disciplines as well as therapy. Knowledge of the symptoms of the disease and the basic diagnostic methods, diagnostic methods should be available not only to the therapist, but also to the surgeon, gynecologist, neuropathologist and all other clinical specialists.

3-module. Examination of patients with diseases of the respiratory system. Inquiry. Forgiveness in the fall. Methods of objective examination by palpation, percussion and auscultation. Basic and additional respiratory interactions.

Methods of examination, interrogation, main complaints and pathogenesis of patients with respiratory diseases. Chest examination, palpation. Chest pain (character, location duration, intensity, prevalence), shortness of breath (physiological, pathological, objective, subjective, mixed; expulsive, inspiratory, mixed). Cough (dry, wet, duration, time of onset). Sputum secretion - the nature, amount, dependence of sputum secretion on the patient's condition. Bleeding (from the nose, lungs, nasopharynx, esophagus, stomach), bleeding, duration, diagnostic value. Disorders of nasal breathing. Examination of the upper respiratory tract. Additional complaints: fever, weakness, loss of appetite. Disease and life history. Chest examination, rules, sequence. Chest shape, asymmetry and deformation, synchronous movement. Involvement of the respiratory muscles during respiration. Breathing type. The number of breaths per minute. On examination, the presence of arrhythmias and shortness of breath. Pathological forms of the chest. Types of asthma (norm and pathology). Chest palpation technique (sound vibration, chest resistance). Pulmonary percussion technique. Comparative percussion sequence.

Percussion sound changes in norm and pathology. Conditional topographic lines of the thorax. Topographic percussion. To determine the mobility of the upper and lower border of the lung, height, width, lower edge. Changes in the boundaries of the lungs in various physiological and pathological conditions. Techniques and rules of lung auscultation. Basic (vesicular and bronchial) respiratory interactions, mechanism of occurrence, changes: increase and decrease (physiological and pathological) and their diagnostic significance. Whistling, mechanism of occurrence (dry and high-toned, wet-toned and non-toned, small, medium, large-bubbled), localization and distribution, diagnostic value. Bronchophonia. The concept of methods of functional-instrumental examination of patients with respiratory diseases. Spirometry, pneumotachometry, oxyhemotherapy. Methods of radiological examination of the lungs, bronchoscopy, bronchography, tomography. Spirometry. Spirography, pneumotachometry, oxyhemometry, pneumotachography. Examination of sputum and pleural fluid, diagnostic value. The difference between tarnssudat and exudate. Interpretation of the obtained results.

4-module. Observed in patients with diseases of the respiratory system basic clinical syndromes.

Bronchial permeability syndrome, pathogenesis. Complaints, review. Palpation. Percussion, auscultation. Symptoms of acute and chronic bronchitis, the role of the profession in its development. Adverse effects and pathogenesis of smoking on the respiratory organs. Pathogenesis of airway obstruction syndrome in lung tissue. Complaints, review. Palpation. Percussion, auscultation. Examination of patients with obstructive pulmonary disease. Bronchial asthma and pulmonary emphysema. Pathogenesis of lung tissue condensation syndrome. Complaints, examination, palpation, percussion, auscultation. Examination of patients with inflammatory disease of the lung tissue. Symptoms of croup and focal pneumonia. Pathogenesis of air and fluid accumulation syndrome in the pleural cavity. Complaints, examination, palpation, percussion, auscultation. Symptomatology of dry and exudative pleurisy. Hydrothorax, pneumothorax symptomatology. Types of pneumothorax (open, closed, closed). Pathogenesis of pulmonary cavity syndrome. Complaints, examination, palpation, percussion, auscultation. Bronchiectasis, symptomatology of lung abscess.

5-module. Methods of subjective and objective examination of patients with diseases of the cardiovascular system.

Methods of examination of patients with cardiovascular disease. Inquiry, review. Examination of the heart area, peripheral arteries. Palpation of the heart area.

Inquiry. The main complaints, their pathogenesis. Pain in the heart area. Mechanism, localization, nature, duration, irradiation, intensity distribution, nocturnal pain, decrease, disappearance. Shortness of breath: mechanism of occurrence, intensity. Cardiac asthma. Heart rate: persistence, aggression, intensity, duration, dependence on excitement, stress, mood swings, food. Feeling of discomfort in the heart area, feeling of pulsation in different parts of the body. Cough, the nature of bleeding, the mechanism of occurrence, diagnostic value. Review. Body structure. The state of consciousness. Skin color, redness, whitening, bruising. The difference between cardiac cyanosis and pulmonary cyanosis. The

mechanism of localization of the tumor, its diagnostic value, the difference from renal tumors.

Examination of the jugular veins. Venous pulsation, swelling. Epigastric pulsation. Pulsation of capillaries. Causes, diagnostic value. Examination of the heart area. Heart fat. Palpation of the apex and heart rate. Normal definition of peak impulse: location, strength, height, distribution. Pathological change of peak motivation. Negative peak motivation. Determination of systolic and diastolic vibration. Symptoms of "cat wheezing". Palpator study of epigastric pulsation, differentiation from heart and liver pulsation.

Heart percussion technique and rule. A method for determining the relative stiffness limit of the heart and the vascular bundle. Determining the waist of the heart. The limit of relative suffocation of the heart. Changes in the boundaries of congestive heart failure in pathology: in diseases of the respiratory organs and cardiovascular system, when the body position changes.

A method of determining the limit of absolute heart failure. Changes in the threshold of heart failure in respiratory and cardiovascular diseases. The diagnostic value of these changes.

6-module. Cardiac auscultation: normal and pathological tones.

Heart murmurs.

Cardiac auscultation. Auscultation rules. Projection of the flaps on the anterior wall of the thorax and their auditory areas. Cardiac auscultation: in different phases of breathing, in different positions of the body, at rest and after physical exertion. The difference between systole and diastole on cardiac auscultation. The concept of heart sounds (1, 2, 3, 4), the mechanism of their formation. The main properties of sounds: timbre, power. Increase and decrease of basic sounds. The main (1, 2, 3, 4) and additional mitral valve opening sound, pericardial tone, division of sounds, hesitation, rhythm, changes in their pathology. Horse dupuri rhythm, quail singing rhythm, pendulum rhythm, embryocardia. Tachycardia, bradycardia, arrhythmia. The concept of normal FKG, EXOKG. Understanding phonocardiography and its importance in diagnosis. Polycardiographic, EXOKG examination and understanding of its importance, diagnostic significance, interpretation.

7-module. Electrocardiography. ECG changes in cardiac hypertrophy. ECG changes in acute myocardial infarction. Arrhythmias. The concept of cardiac fibrillation

Normal ECG, reading method (rhythm, electrocution, UPS, teeth, intervals). Diagnostic and clinical significance of cardiac arrhythmias.

8-module. Rheumatic fever. Heart defects: mitral valve insufficiency. Symptomatology of left atrioventricular foramen narrowing.

Bleeding. An understanding of the anatomy of the heart valves. Heart sounds, the mechanism of their formation. Classification. The difference between functional and organic interactions. The relationship of interactions to the phase of cardiac activity. Systolic and diastolic noises: protodiastolic, mesodiastolic, presystolic, total, timbre, duration. The best places to hear the noise. Pericardial friction noise, pleuropericardial noise. Auscultation of arteries and veins. Traube two sounds, pathological, diastolic Vinagradov - Dyuraze interaction. Vascular examination. Rules and methods. The main characteristic of the pulse. Rules, methods and

techniques of measuring blood pressure. Maximum, minimum, medium pressure. “Random” and basic pressure. The concept of hypertension and hypotension. Oxyllography, sphygmography, capillary microscopy. Determination of pulse wave velocity. Phlebography. Venous pressure, method of determination. Measurement of bleeding rate, diagnostic value. The amount of blood circulating. Cardiac hemorrhage and peripheral resistance. Orthostatic test: a test to stop breathing.
Etiology and pathogenesis of rheumatism, examination of patients. Symptomatology of rheumatism and primary rheumatoid arthritis.
Heart defects. Etiology, pathogenesis of acquired heart disease. Mitral valve insufficiency, hemodynamics, symptomatology (complaint, examination, palpation, percussion, auscultation). Mitral stenosis. Complaints of hemodynamics. Review. Palpation, percussion, auscultation. ECG, FKG, and EXOKG changes in mitral regurgitation.

9-module. Aortic defects. Symptomatology of tricuspid valve insufficiency.

Aortic valve insufficiency. Hemodynamics. Complaints. Review. Palpation, percussion, auscultation. Hemodynamics, symptomatology of aortic stenosis (complaint, examination, palpation, percussion, auscultation ECG, EXOKG, FKG)
The concept of circulatory failure. The mechanism of heart failure. Acute and chronic heart failure syndrome. Left ventricular failure. Clinical manifestations (cardiac asthma, diagnosis of lung tumors, emergency care). Stages of chronic heart failure (compensated and decompensated). Mechanism of heart failure compensation.

10-module. Hypertension. Symptomatology of ischemic heart disease, heart attack, myocardial infarction, cardiosclerosis.

The concept of hypertension. Etiology. Pathogenesis. Symptomatology. Complaints, examination, palpation, percussion, auscultation. Laboratory - instrumental diagnostics. Understanding of hypertensive crisis, emergency care. Symptomatic hypertension (renal, endocrine, central, hemodynamic).
The concept of ischemic heart disease. Etiology. Pathogenesis, symptomatology of angina pectoris classification. ECG diagnostics. Stopping an angina attack.
Myocardial infarction. Etiology. Pathogenesis. Symptomatology. ECG-diagnostics (stages and localization). Ambulance.

11-module. Methods of subjective and objective examination of patients with diseases of the digestive organs. Acute and chronic gastritis. Wound disease. Gastric cancer and methods of its early detection. Symptomatology of chronic enteritis and colitis.

Methods of examination of patients with diseases of the digestive organs. Inquiry. The main complaints of pain: the mechanism of formation, localization, irradiation, dependence on food, character, associated with diarrhea, intensity, time of onset, duration of the day. Loss of pain: spontaneously or after taking medication, fever, vomiting. Vomiting, the time of onset of the mechanism (after lunch or dinner - early, evening). Composition, amount, blood mix, vomit, nausea - mechanism, diagnostic value, time of occurrence, number, intensity, treatment. Stuttering - with air, with food, time of appearance, intensity, depending on body position. The number of boils, the conditions of occurrence, duration, dependence on food. Appetite: good, moderate, no, nausea in the mouth, dry mouth, unpleasant taste,

salivation, inability to taste. Swallowing: free, painful, difficult (dysphagia). Diagnostic value. Flatulence, abdominal cramps, heaviness in the abdomen. Intestinal function: number, nature, amount of diarrhea, blood mix. Causes of diarrhea, diagnostic value. The mechanism of constipation. Examination of the oral cavity, tonsils, mucous membranes, teeth. Tongue, moisture, color, character, suckers, scratches, presence of cracks.

Examine the abdomen in a vertical, horizontal position. Dividing the abdomen into topographic areas. Movement of the abdominal wall in the act of breathing. Development of venous collaterals on the anterior surface of the abdomen, on the lateral wall. Jellyfish head pigmentation, hernia gastric peristalsis, antiperestalitis. Palpation. Superficial palpation method. Skin and subcutaneous fat condition. Determining hernia, muscle separation. Shetkin-Blumberg symptom, methodical, slippery, Obraztsov-Strajesko method palpation. Sequence of 4-moment bowel palpation is the location relative to the organs, mobility, pain, consistency, size, surface, the presence or absence of rumbling. Palpation of the liver, spleen, kidneys. Examination of gastric function and bile, interpretation of the results obtained. Duodenal probing technique, micro, macroscopic examination of 3 servings of grass, diagnostic value.

Methods of instrumeital examination of digestive organs. (radiology, esophagogastroduodenofibroscopy, rectoromanoscopy). X-ray examination of the gastrointestinal tract, diagnostic value. Endoscopic examination of the gastrointestinal tract. Gastroscopy. Colonoscopy. Rectoromanoscopy. Advantages of endoscopy over X-ray examination.

Gastritis, etiology, pathogenesis and classification. Symptomatology of acute and chronic gastritis. Etiology of gastric and duodenal ulcers. Symptomatology of pathogenesis.

Etiology, pathogenesis, symptomatology of enteritis and colitis symptomatology. Coprologic examination. Diagnostic significance and interpretation of the results obtained.

12-module. Methods of subjective and objective examination of patients with diseases of the liver and biliary tract. The main clinical syndromes: jaundice, portal hypertension, liver failure. Symptomatology of hepatitis and liver cirrhosis

Inquiry into patients with liver and biliary tract disease. Main complaints: mechanism of pain formation, localization, nature, duration, irradiation, causes, intensification, attenuation, cessation of pain, diagnostic significance. Dyspepsia: changes in appetite, nausea, belching, nausea, vomiting, abdominal distention, nausea. Jaundice: skin discoloration, urine, stool change. Diagnostic value. Itchy skin. Other manifestations of bleeding and hemorrhagic diathesis. Abdominal enlargement. Review. General appearance, changes in subcutaneous fat. Skin changes: jaundice, vascular asterisks, liver plaque, drumsticks, gynecomastia, erythema, diagnostic significance. Abdominal examination: ascites or limited (enlargement of the spleen, liver gallbladder). Navel position. Formation of venous nodules on the anterior wall of the abdomen. Liver palpation, edge, consistency, face, pain. Abdominal percussion, detection of ascites. Determination of liver size according to Kurlov.

The concept of the main clinical syndromes is jaundice, portal hypertension, liver failure. Jaundice. Types of jaundice. Mechanism and pathogenesis of jaundice. Scheme of bilirubin exchange. Symptomatology of portal hypertension. Concepts and importance of liver pigment, carbohydrate, fat metabolism (biochemical blood test), micronutrient testing (iron, copper). Enzyme examination, detoxification, excretory activity of the liver, radioisotope examination of the liver, radiometric examination, methods of liver scanning. Gallbladder scanning technique. X-ray examination: cholecystography, cholegraphy, computed tomography.

Mechanism and symptomatology of liver failure. Symptomatology of chronic cholecystitis and hepatitis. Complaints, examination, palpation, tingling. An overview of the etiology and pathogenesis of diseases. Symptomatology of liver cirrhosis. Complaints, examination, palpation, tingling. An overview of the etiology and pathogenesis of diseases.

13-module. Methods of subjective and objective examination of patients with kidney disease. The main clinical syndromes: urinary, nephrotic, hypertensive. Symptomatology of acute glomerulonephritis and pyelonephritis.

Inquiry, examination, palpation, general understanding of the main clinical syndromes, the main complaints and their pathogenesis in patients with kidney disease. Pains, their analysis. Location, distribution of tumors. Dysuric disorders. Methods of laboratory examination of urine. Functional kidney tests (Zimnitsskiy, Nicheporenko, Reberga). Interpretation of the obtained results.

Symptomatology of nephritis. General understanding of the etiology and pathogenesis of acute and chronic pyelonephritis, glomerulonephritis.

14-module. Methods of subjective and objective examination of patients with diseases of the gastrointestinal tract. Methods of clinical, laboratory and instrumental examination. Symptomatology of anemia and leukemia.

Methods of interrogation and examination of patients with blood diseases (complaints, collection of medical history, hereditary factors). Pain in throat, bones, under right and left ribs. Bleeding: from the nose, gums, gastrointestinal tract, uterus and other organs. Itchy skin, malaria, itching. Changes in the skin and mucous membranes, enlargement of regional lymph nodes. Palpation of lymph nodes. Liver, spleen palpation, consistency, surface and edge, pain. Petechiae. Blood test. Clinical significance of general blood analysis and interpretation of the results obtained.

Symptomatology of anemia. Anemia. General concepts of etiology and pathogenesis. Classification of anemias. Symptomatology of iron deficiency, posthemorrhagic, hemolytic anemia. Symptomatology of leukemia. General concepts of etiology and pathogenesis. Classification of leukemias. Symptomatology of acute and chronic (myelogenous leukemia and lymphocytic leukemia).

15-module. Methods of subjective and objective examination of patients with diseases of the endocrine system. Symptomatology of thyroid disease. Symptomatology of diabetes.

Inquiry of patients with diseases of the endocrine glands (complaints, collection of medical history, hereditary factors). Complaints: weakness, weight loss, obesity, thirst, appetite, fever, high irritability, itchy skin, palpitations, discoloration of the skin, vision. General condition. Es-hushi. Change in height and

its proportions. Gender and age signs. Changes in skin coatings. Presence of rashes, stretch marks on the skin. Development and even distribution of subcutaneous fat clot. Tumors. Weakness. Changes in the skeletal system. Identify the symptoms of the appearance of certain parts of the body. Change of face, change of neck area. Diseases of the thyroid gland. Symptomatology of hypo and hyperthermia. Etiopathogenesis, symptomatology of diabetes. The concept of diabetic and hypoglycemic comas. Basics of ambulance.

15-module. Methods of subjective and objective examination of patients with systemic diseases of the connective tissue. Rheumatoid arthritis, systemic lupus erythematosus, symptomatology of scleroderma.

Practical training

On the organization of practical training instructions and recommendations

The following didactic principles are followed in conducting practical training:

clearly define the purpose of practical training;

to arouse students' interest in opportunities to deepen their knowledge of innovative pedagogical activities of the teacher;

providing the student with the opportunity to achieve the result independently;

theoretical and methodological preparation of students;

practical training is not only a source of completion of knowledge on a specific topic, but also a source of educating students.

An approximate list of practical exercises

Tasks of propaedeutics of internal diseases. Patient examination procedure.

- Medical history chart.
- General examination of the patient.
- Temperature curvature. Anthropometry.
- Palpation as a method of examination.
- Percussion is an objective examination method.
- Auscultation.
- Methods of functional and instrumental examination of patients.
- Laboratory training.
- ECG acquisition and analysis.
- Respiratory system.
- Cardiovascular system
- Digestive system.
- Urinary system.
- Blood system.
- Endocrine system.
- Diseases of the connective tissue.
- The concept of allergic diseases.

Instructions for the organization of laboratory work

Laboratory work on science is not provided in the curriculum.

Methodical instructions on the organization of course work

It is planned to check the history of the disease in the areas of treatment and medical pedagogy.

The form and content of the organization of independent education

It is recommended that the student use the following forms in the organization of independent study of the subject "IKP", taking into account the characteristics of a particular subject and is assessed as current control:

1) **preparation of abstracts (abstracts, presentations) on topics.** Such a method, which helps to master the theoretical material, helps to draw more attention to the teaching material. Student syllabus facilitates the preparation for various control tasks, saves time;

2) **work with automated training and control systems**. Electronic resources recommended for students to master the knowledge acquired during lectures and practical classes, to prepare for various tests, samples of innovative lesson plans, test assignments for self-control, etc .;

3**) work with additional literature on science.** In addition to the recommended basic literature, students use additional educational, scientific literature on the topics given for independent study. The use of literature in Russian and foreign languages is encouraged;

4) **Use of the INTERNET.** Mastering science topics, finding INTERNET sources on the topic in the preparation of abstracts, presentations, working with them is encouraged by additional rating points in all types of control;

5) development and participation in thematic issues, case studies and educational projects;

6) collection of material on the basis of types of practice, finding solutions to existing problems in practice, preparation of reports;

7) preparation and participation in theses and articles at scientific seminars and conferences;

Homework assignments, independent study of new knowledge, searching for and finding the necessary information, data collection and research using the Internet, preparation of scientific articles (theses) and reports in the classroom or independently using scientific sources. deepens the knowledge they have acquired, develops their independent thinking and creative ability. Homework is checked and evaluated by the teacher conducting the practical training, and the level of mastery of abstracts and topics is checked and evaluated by the teacher conducting the lectures in each lesson.

A set of guidelines and recommendations for the organization of independent work, a case study, a set of situational issues will be developed. It provides students with practical assignments on key lecture topics, case-solving methods, and tasks for independent work.

Homework assignments, independent study of new knowledge, searching for and finding ways to find the necessary information, data collection and research using the Internet, preparation of scientific articles (theses) and lectures in the classroom or independently using scientific sources. deepens the acquired knowledge, develops their independent thinking and creative ability. Homework review and assessment is done by the teacher conducting the practical lesson, and the level of mastery of the abstracts and topics is checked and evaluated by the teacher conducting the lecture lessons in each lesson.

A set of guidelines and recommendations for the organization of independent work, a case study, a set of situational issues will be developed. It provides students with practical assignments on the main topics of the lecture, the method of solving case studies and tasks for independent work.

№	TMI theme	watches
1.	Acute respiratory distress syndrome	3
2.	Asthmatic status.	3
3.	Pulmonary emphysema.	3
4.	Diagnosis of obstructive respiratory failure.	3
5.	Diagnosis of bronchiectasis.	3
6.	Upka abscess.	3
7.	Heart disease as a result of lung disease.	3
8.	Infectious ecocarditis.	3
9.	Hypertensive crises.	3
10.	Hypotension.	3
11.	Acute coronary syndrome.	3
12.	Acute mining circulation failure.	3
13.	Chronic mining failure.	3
14.	Human helminthiasis	3
15.	Immunopathology of the gastrointestinal tract	3
16.	Chronic pancreatitis.	3
17.	Reflux esophagitis.	3
18.	Immunopathology of kidney disease.	3
19.	Tubulointerstitial nephropathy.	3
20.	Immunopathology of rheumatoid arthritis.	3
21.	Diabetes mellitus. Diabetic and hypoglycemic	3
22.	Diabetic and hypoglycemic coma	3
23.	Rheumatoid arthritis.	3
24.	Thyrotoxicosis	3
25.	Symptomatology of Addison's disease	3

26.	Symptomatology of Bexteerev's disease	3	
27.	Comparative diagnosis of joint syndrome Бўғимлар синдроми қиёсий диагностикаси	2	
28.	Comparative diagnosis of hyper and hypoglycemic comas Гипер ва гипогликемик комалар қиёсий диагностикаси	2	
29.	Leukemias	2	
30.	Symptomatology of erythema Эритемалар симптоматологияси	2	
31	Diagnostic criteria for systemic lupus erythematosus Тизимли қизил бўрича ташҳис мезонлари	2	
	Total	88 hours	

List of used literature

Basic literature

1. GadaevA; Karimov M.Sh ..; "Propaedeutics of internal diseases" T. 2012;
2. Muxin N.A., Moiseev V.I. "Propedevtika vnutrennix bolezney", M. 2000.
3. Vasilenko V.X .. Grebenev A.L “Propedevtika vnutrennix bolezney”, M.1989

Additional literature

1. Grebenev A.L. "Propedevtika vnutrennix bolezney", M. 2001.
2. Strutynskiy A.V. “Basics of semiotics of diseased internal organs” M. 2004. MEDpress-inform.
3. Karabaeva R.A. Practicum on the propagation of internal diseases, 1992.
4. Therapy per. s angl. \ pod red. Chuchalina M. 1997.
5. Geotar M. Terapevticheskiy spravochnik Vashingtonskogo Universiteta, per. s angl. -1996.
6. Textbook. Harrisons principles of internal medicine. Fauci A. Braunwald E ed. McGraw-Hill, 1998.
7. Textbook of internal medicine. William N. Kelley ed. Lippincott - Ravenpublishers, 1997.
8. Translation with English under the editorship of acad. RAMN V.T.Ivashkina “Internal diseases of Davidson” Geotar M. 2009

Websites:

1.www.tma.uz
2.www.ziyonet.uz
3.www.medlincs.ru
4.www.medbook.ru.

MINISTRY OF HIGHER AND SECONDARY SPECIAL EDUCATION OF THE REPUBLIC OF UZBEKISTAN
MINISTRY OF HEALTH OF THE REPUBLIC OF UZBEKISTAN
BUKHARA STATE MEDICAL INSTITUTE NAMED AFTER ABU ALI IBN SINO
DEPARTMENT OF PROPEDYTICS OF INTERNAL DISEASES

Curriculum "I confirm"
Registered by the Vice-Rector for Academic Affairs
taken № _____ t.f.n .____ G.J. Jarilkasinova
«_____» _____2021 y. "_____" _____ 2021 y

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PROPEDYTICS OF INTERNAL DISEASES
MODULE WORKING CURRICULUM
2021-2022 ACADEMIC YEAR

Course of Study:

Field of study: 500,000 - Health and Social Welfare
Field of study: 510000 - Health
Field of study: 5510100
5111000 - Therapeutic case
- Vocational education

Course 2

Hours are 162 hours
Including:
Lecture 10 hours
40 hours of practical training
Clinical training 40 hours
Independent work 72 hours

Buxoro – 2021

The working curriculum of the module has been developed in accordance with the curriculum, working curriculum and syllabus

Developer:

Tosheva Kh.B. - Assistant of the Department of Propaedeutics of Internal Medicine

Reviewer:

Asrorov A.A. - Head of the Department of Traditional Medicine, Rehabilitation, **Occupational** Diseases, Tuberculosis, Sports Medicine and Sports, Associate Professor

Ahmedova N.Sh. - Head of the Department of Faculty and Hospital Therapy

The working curriculum of the module was discussed and approved by the Scientific Council of Bukhara State Medical Institute (Protocol No. 2021)

Head of the department: **Nurboev F.E.**

Dean of the Faculty:

Teaching Methodology Department

designer: Adilova R.X.

INTRODUCTION

Work program on the subject "Propaedeutics of Internal Medicine" for 3rd year students of medical and vocational education State standards and bachelor - Qualification characteristics of medical and vocational education and higher and secondary special education of the Republic of Uzbekistan Developed on the basis of the science program approved by the order of the Ministry of Education in 2019.

In the process of studying the subject of propaedeutics of internal medicine, the formation of modern understanding of the principles of disease, diagnosis, diagnostic principles, symptoms, syndromes in students is to inculcate in students the basics of medical ethics and ethics and deontology.

Through the science of internal medicine propaedeutics, the student conducts a physical examination of the causes of the main pathological processes in the body and the concepts of the main symptoms and syndromes of their development mechanisms, examination, palpation, palpitations, hearing, blood pressure measurement, pulse detection, ECG general analysis and clinical evaluation of blood, urine, feces, sputum, gastric juice, duodenal products, pleural fluid, resuscitation in case of clinical death, knowledge of the basics of medical deontology.

The teaching of internal medicine propaedeutics is based on vertical integration with normal anatomy, normal physiology, general biology and medical genetics, biochemistry and microbiology, and horizontal integration with pathological anatomy, pathological physiology, general surgery and pharmacology.

Aims and objectives of the training module

The purpose of teaching the subject is to acquaint students with the science of propaedeutics and to acquaint them with the methods of medical deontology, iatrogenics, clinical examination of patients (interrogation, examination, palpation, percussion, auscultation) organs and systems step by step. examination, study of the basic laws of syndromes and symptoms in the system, laboratory and instrumental examination of the organs and the acquisition of interpersonal skills.

Objectives of the subject - to teach students medical techniques or methods of examination, to teach the basic laws of syndromes and symptoms, to teach step-by-step examination of organs and systems, to teach laboratory and instrumental examination and interpretation of organs, the results of examination The ability to make diagnostic conclusions on the basis of questions of nosological forms of internal diseases study, teaching the basic principles of treatment of internal diseases.

Requirements for knowledge, skills and abilities of students in the module

Knowledge of basic clinical diagnostic methods, palpation, percussion, auscultation and practical application. Patients should be interviewed independently and have an idea of the etiology and pathogenesis of pathological processes in the body.

- Fundamentals of medical deontology.

- have an understanding of the main symptoms and syndromes of diseases.

They should be able to analyze the laboratory tests needed for additional diagnosis.

- The basic diagnosis of the most common, typical internal diseases

- have an understanding of first aid and basic medical records and skills.

Interaction of the module with other subjects in the curriculum and methodological sequence

The subject of propaedeutics of internal medicine is a medical clinical discipline, taught in the 5th and 6th semesters. requires having nicknames.

The role of the module in science, industry and health

The science of propaedeutics plays an important role in the training of general practitioners. Because this subject teaches bachelors how to examine patients (anamnesis, examination, palpation, percussion, auscultation) and in-depth laboratory instrumental examinations.

Modern information and pedagogical technologies in teaching the module

The use of advanced and modern teaching methods, the introduction of new information pedagogical technologies are important for students to master the subject of propaedeutics of internal medicine. Textbooks, teaching aids, lecture notes, handouts, computer programs, electronic materials and ECG, video systems are used in the study of the subject. Advanced pedagogical technologies are used in lectures and practical classes, respectively.

Person-centered education. By its very nature, it involves the full development of all participants in the learning process. This means that when designing education, of course, the approach should be based not on the personality of a particular learner, but primarily on the learning objectives related to future professional activities.

Systematic approach. Educational technology should embody all the features of the system: the logic of the process, the interconnectedness of all its components, the integrity.

Activity-oriented approach. Represents education aimed at the formation of process qualities of the individual, the activation and intensification of the learner's activities, the discovery of all his abilities and capabilities, initiative in the learning process.

Dialogic approach. This approach emphasizes the need to build learning relationships. As a result, the individual's creative activity, such as self-activation and self-expression, increases.

Organizing collaborative learning. It emphasizes the need to focus on the introduction of collaboration in shaping the content of democratic, equitable, educative and recipient activities and in evaluating the results achieved.

Problem-based learning. Problem-based presentation of learning content activates the learner. At the same time, the objective contradiction of scientific knowledge and the creative application of methods for its solution form and develop dialectical observation, as a result of which the student is provided with independent creative activity.

The use of modern means and methods of presenting information - the introduction of new computer and information technologies in the educational process.

Teaching methods and techniques. Lecture (introduction, thematic, visualization), problem-based learning, case-study methods, practical work.

Forms of teaching: frontal, collective and group based on dialogue, polylogue, communication, collaboration and mutual learning.

Teaching aids. Along with traditional forms of teaching (textbooks, lectures) - computer and information technology.

Methods of communication: direct interaction with the audience based on operational feedback.

Methods and means of feedback: observation, blitz-questionnaire, intermediate, diagnostics of training based on the analysis of the results of current and legal control.

Methods and tools of management: planning of lessons in the form of technological maps, which determine the stages of training, the interaction of teacher and student in achieving the goal, not only the lessons of the classroom, but also independent work outside the classroom control.

Monitoring and evaluation: systematic monitoring of learning outcomes both in the classroom and throughout the lesson. At the end of the cycle, the assessment of students' knowledge using OSKI.

1. "Assistment" method

The paper is divided into 4 parts in the hands of the teacher-trainer.

1. Describe the symptom of the topic.
2. Solve the problem.
3. Solve the test.
4. Practical skills.

2. "Chamomile" method:
Make a chamomile model on a poster board.
Write a question on the reverse side of the chamomile leaves and write "prize" or "you don't have to answer the question, rest" on 2-3 of them. The group members take turns taking the chamomile leaves and answer the relevant question.
3. "Find a surprise" game:
Before the lesson begins, a question is written on a piece of paper and pasted in an invisible place.

When participants enter the classroom, some of them may find a gift

it is said. The questions on the papers found under the table will be answered in turn.

4. The "brainstorming" method.
The main rules of the method:
- Lack of warnings and criticisms that hinder the formation of opinions
-take into account that the more unnatural the idea, the better
-try to get more offers
-combination and development of ideas
- Give a brief description without giving a detailed explanation
-distribute to those who express and rework the ideas of the group
This method helps students to justify, defend, and think independently.
5. "Rotation" method
Divide the group into small groups and ask them a few problematic questions or situational questions. Each small group writes their answer for 10 minutes and moves on to the next question. Until the end all questions will be answered. The written answers are discussed and the correct answer is chosen. Uses posters.
6. "Weak ring" method

The students in the group sit in a circle. Students are quick and on the topic in turn questions are asked that require short answers. The student who could not answer the question is out of the game turns out. In the end, the remaining student will be able to answer many questions correctly.

7. Question-answer method "Boom" game

The trainer-teacher should have ready-made questions on the topics covered. The rules of the game are explained to the participants: they say the numbers 1, 2, 3 aloud, They should say the word "boom" instead of numbers ending in 3 that are divisible by 3.3. Attention a pre-prepared question is asked to a student who is not sitting still and who is lost in the calculation;

In this way, the game between the participants of the group continues.

8. "Academic controversy" The group "Academic controversy" is divided into 2 teams.

They are given a situational question. the student is assigned.

9. "3-stage interview" "3-stage interview" is given to each group (3 people) in roles. "Doctor", "patient", "VOP expert". "Patients" are diagnosed anonymously.

Each group will discuss for 10-15 minutes. The "expert" will evaluate the doctor's actions in three parts. 1. what was done right 2. what was done wrong 3. how to be done

10. "Group check" - the group is asked 2-3 questions on the topic.

Time is given to collect information.

11. "On the gallery" - small groups are given one task.

Each group writes their opinion for 10 minutes and shares the answer sheet with 2 groups. The next group evaluates them and fills in if the answer is incomplete.

3. Module structure

3.1. Module load and types of educational work

semester	**Total load capacity**	**Lecture (hours)**	**Practical training (hours)**	**Lab**	**Independent study (hours)**	**Type and form of control**	**Credit volume**
4		10	40	40	72		4,5
Total:		**10**	**40**	**40**	**72**		**4,5**

3.2 Lectures

№	**Lecture topics**	**Clock size**	**Mandatory code of competence**
	1 semester		
1	Introduction. History of the development of science. Purpose, tasks. Methods of clinical examination of patients. Inquiry. Complaints. Life history. Physical examination methods: examination, palpation, percussion, auscultation.	2	**UK-1**
2	Respiratory system. Control methods. Inquiry. Methods of physical examination: examination, palpation, percussion and auscultation. Basic and additional respiratory interactions. Methods of functional examination of the lungs: bronchoscopy, bronchography, tomography, spirography. Check for sputum.	2	**UK-2**
3	Basic clinical syndromes. Pulmonary tissue condensation syndrome. Pulmonary cavity syndrome. Air and fluid accumulation syndrome in the pleural cavity. Bronchospasm syndrome.	2	**UKK-3**

4	Cardiovascular system. Control methods. Inquiry. Review. Palpation, percussion and auscultation. Heart tones, normal and pathology. Noises.	2	**UKK -4**
5	The concept of FKG, ECG and ExoKG. ECG changes in cardiac hypertrophy and acute myocardial infarction. Arrhythmias. The concept of cardiac fibrillation. Acute rheumatic fever. Heart defects. Mitral and aortic heart defects.	2	**UK-2**
	Total:	**10 hours**	

4.2. Content of lecture materials

Topic 1

History and development trends of the science of propaedeutics of internal diseases. The basis of medical deontology and medical secrets. Information about iatrogenicity. The concept of diagnosis and semiotics. Introduction to the order of examination of patients.

Medical deontology, goals of propaedeutic clinic. Semiotics. The concept of diagnosis. General plan of examination of patients. Patient anamnesis, medical history. Brief information about the development of internal medicine. The main goals and objectives of the ICP. About medical deontology. Methods of examination of patients. The importance of the medical record as a scientific, medical and legal document. The importance of questioning and anamnesis in the diagnosis. Hereditary factors. Diseases experienced.

References: 1. (basic literature) -1,2,3 Write the author himself

2. (additional) - 1,2,4,12

Websites

Topic 2

Respiratory system. Control methods. Inquiry. Physical examination methods: objective examination methods such as examination, palpation, percussion and auscultation. Basic and additional respiratory interactions. Additional tests include bronchoscopy, bronchography, and tomography. Methods of functional examination of the lungs are spirometry, spirography, pneumotachometry. Check for sputum.

Cough (dry, wet, duration, time of onset) The nature and extent of sputum secretion, the dependence of sputum secretion on the patient's condition. Bleeding (nose, lungs, nasopharynx, esophagus, stomach), bleeding, duration, diagnostic value. Disorders of nasal breathing. Chest examination, palpation. Chest pain (nature, location, duration, intensity, distribution)

Chest examination, palpation. Pathological forms of the chest. Types of asthma (norm and pathology). Chest shape, topographic lines. Topographic percussion. Determining the upper, lower, upper, lower, and lower extremities of the lungs. Changes in the boundaries of the lungs in various physiological and pathological conditions.

Techniques and rules of lung auscultation. Basic (vesicular and bronchial) respiratory noise, mechanism, changes: increase and decrease (physiological and pathological) and their diagnostic significance. Whistling, mechanism of occurrence (dry, low and high tones, wet and no sound, small, medium, large vesicles), localization and distribution, diagnostic value.

Symptoms of acute and chronic bronchitis, the role of the profession in its development. Examination of patients with obstructive pulmonary disease: complaints, examination. Palpation, percussion, auscultation. Adverse effects and pathogenesis of smoking on the respiratory organs. Symptomatology of bronchial asthma and pulmonary emphysema.

References: 1. (basic literature) -1,2,3,

2. (additional) - 1,2,3,4,8

Websites

Topic 3

Basic clinical syndromes. Primary pulmonary congestion syndrome. Pulmonary cavity syndrome. Air accumulation syndrome in the pleural cavity. Bronchospasm syndrome. Respiratory diseases.

Pathogenesis of pulmonary congestion syndrome. Complaints, examination, palpation, percussion, auscultation. Examination of patients with inflammatory bowel disease. Complaints of pleurisy, examination, palpation, percussion, auscultation. Types of pneumothorax (open, closed, closed). Bronchiectasis, lung abscess: complaints, examination, palpation, percussion, auscultation.

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,3,4,5,6

Websites

Topic 4

Cardiovascular system. Control methods. Inquiry. Review. Palpation, percussion and auscultation. Cardiac auscultation. Heart tones are the norm and pathology. Noises.

Inquiry. The main complaints, their pathogenesis. Pain in the heart area, the mechanism of pain formation, localization, nature, duration, irradiation, intensity distribution, nocturnal suffocation, pain reduction, disappearance, intensity of the mechanism of occurrence .Heart asthma. Heart rate: persistence, aggression, intensity, duration, dependence on excitement, stress, mood swings, food. Feeling of discomfort in the heart, pulsation in various parts of the body. Cough, hemorrhage, mechanism of occurrence, diagnostic value. Review. Body structure. The state of consciousness. Skin color, redness, paleness, bruising. The difference between cardiac cyanosis and pulmonary cyanosis. Mechanism of tumor formation, localization, diagnostic significance, differences from renal tumors. Peripheral heart area Determining the relative stiffness of the heart and the vascular bundle. Determining the waist of the heart. Relative heart rate. Changes in the boundaries of cardiac arrest in pathology: in diseases of the respiratory and cardiovascular systems, changes in body position.

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,3,4,5,6,8

Websites

Topic 5

Electrocardiography. ECG changes in cardiac hypertrophy. ECG changes in acute myocardial infarction. Arrhythmias. The concept of cardiac fibrillation. Acute rheumatic fever. Heart defects. Narrowing of the mitral orifice. Mitral valve insufficiency. Aortic stenosis and aortic valve insufficiency.

Cardiac auscultation. The difference between systole and diastole on cardiac auscultation. The concept of heart sounds (1, 2, 3, 4), the mechanism of their formation. Horse dupuri rhythm, quail singing rhythm, pendulum rhythm, embryocardia, tachycardia, bradycardia, arrhythmia. Heart murmurs, the mechanism of their formation. Classification. The difference between functional and organic interactions. Vascular examination. Rules and methods. The main characteristic of the pulse. The main characteristic of the pulse. Rules, methods and techniques of measuring blood pressure. The concept of normal FKG, EXOKG. Understanding phonocardiography and its role in diagnosis. Polycardiographic, EXOKG examination and understanding of its importance, diagnostic significance, interpretation. Normal ECG, reading method (rhythm, intervals, teeth.) Cardiac arrhythmias and clinical significance.

Heart defects. Etiology, pathogenesis of acquired heart defects. Mitral valve insufficiency (hemodynamics, symptoms, complaints, examination, palpation, percussion, auscultation).

Mitral stenosis. Hemodynamics, complaints, examination, palpation, percussion, auscultation. Complaints of ECG, FCG, and EXOKG changes in mitral regurgitation. Acute and chronic heart failure: examination, palpation, percussion, auscultation, ECG, ECG, FCG). Clinical manifestations (asthma, diagnosis of lung cancer, emergency care). Stages of chronic heart failure (compensated and decompensated). Symptomatology of heart failure, compensation mechanism. Aortic valve insufficiency. Hemodynamics. Hemodynamics, symptomatology of aortic stenosis.

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,3,4,5,6

Websites

Skip to the next of practical and clinical trainings and thematic plans.

№	Lesson topic	Practical training	Clinical training	That's all
1	Introduction. History of the development of internal medicine. The science of propaedeutics of internal medicine. Purpose, tasks. Fundamentals of medical deontology. Counseling skills.	2	2	4
2	General examination of patients: general condition, consciousness, condition, body composition. Examination of the patient by body parts: head, face, neck, skin, bones, muscles, joints.	2	2	4
3	Anthropometry. Thermometry. General concept of laboratory and instrumental examinations. The importance of modern laboratory and instrumental methods of examination.	2	2	4
4	Methods of clinical examination of respiratory organs. interrogation, general examination, chest examination. Chest palpation, goals and objectives, performance, diagnostic value.	2	2	4
5	Methods of physical examination of the respiratory system: lung percussion, rules and procedures. Comparative percussion. Features of topographic percussion, percussion sound and lung boundaries in norm and pathology.	2	2	4
6	Pulmonary auscultation. Techniques and rules. Primary (bronchial and vesicular) and secondary (wheezing, crepitation, pleural friction noise) respiratory noises. Modern inspection methods. Methods of radiological examination: bronchoscopy, bronchography, tomography. Methods of functional examination of the lungs: spirometry, spirography, pneumotoxometry. Check for sputum.	2	2	4

7	Lung tissue condensation syndrome (in the example of crouposis and focal pneumonia). Pulmonary cavity syndrome (for example, pulmonary abscess and bronchiectasis). Diagnosis, etiology and pathogenesis. Basic principles of treatment	2	2	4
8	Impaired bronchial permeability syndrome. (for example, acute and chronic bronchitis, obstructive and nonobstructive bronchitis). Flatulence syndrome (bronchial asthma, emphysema). Examination for obstructive pulmonary disease. Diagnosis, etiology and pathogenesis. Basic principles of treatment	2	2	4
9	Syndrome of air and fluid accumulation in the pleural cavity (pleurisy, hydrothorax, pneumothorax). Respiratory failure, etiology, pathogenesis, basic principles of diagnosis and treatment.	2	2	4
10	Cardiovascular system. Control methods. Inquiry. Examination (general condition, skin color, swelling, examination of the neck). Diagnostic value. Examination of the heart and peripheral arteries. Palpation and diagnostic value of the heart area.	2	2	4
11	Cardiac percussion. Determining the limit of relative and absolute suffocation in a healthy person and in pathology. Cardiac configuration and its definition in pathology. Diagnostic value. X-ray analysis.	2	2	4
12	Cardiac auscultation rules and hearing points. Heart tones. Tone changes (increase and decrease) in cardiovascular pathology. Doubling and splitting of tones. Diagnostic value. Additional tones in cardiovascular pathology.	2	2	4
13	Heart murmurs. Pulse check.Pulse characteristics. Blood pressure and rules of its measurement. The concept of hypertension and hypotension. Diagnostic value and methods of examination.	2	2	4
14	Electrocardiography. Recording rules. Normal electrocardiogram. ECG analysis. ECG changes in ventricular hypertrophy. ECG signs in coronary insufficiency.	2	2	4
15	Arrhythmias ECG changes. ECG signs in disorders of cardiac automatism and excitability.	3	3	6
16	Basic clinical syndromes. Coronary insufficiency syndrome. Circulatory failure syndrome. Asthma, lung cancer. Vascular insufficiency syndrome. Cardiomegalia. Hypertension syndrome in the small circulatory system.	3	3	6
17	Symptomatology of rheumatic fever and primary rheumatic heart disease. Mitral foramen narrowing and mitral valve insufficiency. Principles of diagnosis and basic treatment. Aortic defects. Aortic	3	3	6

	stenosis. Aortic valve insufficiency. Principles of diagnosis and basic treatment.			
18	Hypertension. The concept of symptomatic hypertension. Principles of diagnosis and basic treatment. Ischemic heart disease. Angina and myocardial infarction. Principles of diagnosis and basic treatment. (Curation of patients. Medical history №1)	3	3	6
	Total:	40	40	80

5.2. Content of practical training topics.

Topic 1

The task of the science of propaedeutics of internal medicine. Verification procedure. The concept of medical deontology. Scheme of the medical report, methods of clinical examination of patients: interrogation, examination, palpation, percussion, auscultation. Patient complaints: primary, 2nd degree. Current medical history, life history

Admission to the clinic. Get acquainted with the department of propaedeutics of internal medicine and the requirements of the department for students. The concept of internal diseases. Internal medicine is a branch of medicine that studies the causes, clinical manifestations, treatment, and prevention of internal organ diseases. The science of propaedeutics teaches the diagnosis of internal diseases - methods of examination of patients (questioning, examination, palpation, percussion, auscultation), basic clinical and laboratory examination, symptoms and syndromes in the diagnosis of diseases. The science of the relationship between doctor and patient, the duties and responsibilities of the doctor - medical deontology. Diagnosis statement scheme. Scientific, medical, importance as a legal document. The role of questioning in the psychotherapeutic approach to the patient. Patient complaints: primary, secondary. History of disease development.

Interactive method: summary, Brainstorming, Gallery, Snowball

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,4,12

Websites

Topic2

Inquire the patient individually. Individual work of students with patients, the number of complaints and medical and life history. General examination of patients (general condition of the patient, state of consciousness, body composition). General examination rules, general examination of the patient. Examination of body parts: head, face, neck, limbs, skin. Fever. Temperature changes. Anthropometry. Anthropometric formula. The importance of anthropometry in the diagnosis of the disease.

Index Ketle.

Individual work of students with patients. Summary of complaints and medical and life history. Condition of consciousness, types of disorders (clear, stupor, sopor, coma, irritating changes in consciousness). The most common types of coma (alcoholic, apoplexic, hypoglycemic, diabetic, hepatic, uremic, epileptic). Patient status (active, passive, compulsory). Changes in the shape and size of the head (microcephaly, pulsation of the head, etc.). Facial examination - clear facial features, gender and age. Pathological changes, Corvisor's face, lion's face, Parkinson's mask, Hippocrates' face, asymmetry of facial muscles, etc. Examine the eyes, eyelids, nose, and mouth, neck, skin, and mucous membranes. Methods for measuring body temperature. Heating characteristics. Degrees of temperature rise. Types of heating. Fever course. Crisis. Lizis. Hypothermia. The diagnostic value of temperature measurement. Heat dissipation.

Interactive method: Weak ring, round table, pen in the middle of the table

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,4,12
Websites

Topic 3

As a method of palpation and percussion examination. Palpation of the thyroid gland and lymph nodes. Use of palpation and percussion as clinical examination. Palpation and percussion development history, techniques, methods, diagnostic value. Percussion sound characteristics.

Sequence of lymph node palpation. Characterization of lymph nodes in the normal state. Palpation of the thyroid gland. History of the development of percussion as a method of examining patients. The role of Auen-Brugger in the development of the method, its application in the practice of Corvisor. In the development of this method and the importance of our peers. Sounds obtained in percussion. Comparative and topographic percussion. Basic rules of percussion

Interactive method: 3-stage interview, brainstorming, beehive

References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,3,4,8
Websites

Topic 4

Methods of examination of patients with respiratory diseases: interrogation, examination of the chest, palpation. Lung percussion, comparative percussion.

The main complaints and pathogenesis. Chest pain, shortness of breath. Cough (dry, wet, duration, time of onset). Sputum secretion. Bleeding from the nose and lungs, duration. Bleeding from the lungs, nasopharynx, esophagus, stomach. Diagnostic value. Disorders of nasal breathing. Examination of the upper respiratory tract. Grade 2 complaints: fever, weakness, loss of appetite. Life and medical history. Chest examination. Rhythm arrhythmias and shortness of breath. Chest palpation and percussion techniques, determination of resistance. Comparative percussion sequence. Percussion over the lungs in norm and pathology
sound change.

Interactive method: Academic controversy, weak loop, snowball

References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,3,4,8
Websites

Topic 5

Topographic percussion of healthy and respiratory patients. Auscultation as a method of objective examination. Auscultation techniques and rules. Pulmonary auscultation: basic respiratory sounds (vesicular, bronchial).

Pulmonary percussion technique. Determine the upper limit of the lung or its height and width. Determining the lower limit of the lungs. Conditional topographic lines of the thorax. Determining the motility of the lower edge of the lungs. Changes in the boundaries of the lungs in various physiological and pathological conditions. Techniques and rules of lung auscultation. Basic (vesicular and bronchial breathing) respiratory interactions, the mechanism of their occurrence. Changes in the main respiratory interactions: increase and decrease (physiological and pathological) and their diagnostic significance.

Interactive method: 3-stage interview, round table, snow pile

References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,3,4,5,6
Websites

Topic 6

Pulmonary auscultation: additional respiratory noises (dry and wet wheezing, crepitation and pleural friction noises). Diagnostic value. Bronchophonia. Methods of functional instrumental examination of patients with respiratory diseases: spirometry,

pneumotachometry, oxyhemotherapy. X-ray examination of the lungs, bronchoscopy, bronchography, tomography. Diagnostic value.

Whistling, the mechanism of its occurrence. Dry low tone, high tone, wet tone, soundless, localization and distribution of small, medium, large vesicles, wheezing. X-ray of the lungs and the concept of radiography. Bronchography. Bronchoscopy. Tomography. Spirometry. Spirography. Importance of functional examination of patients with respiratory diseases. Cpirogram.

Pneumatoxometry, oxyhemometry, pneumatoxography.

Interactive method: assimilation method, weak ring, beehive, ration method

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,3,4,5,6

Websites

Topic 7

Laboratory examination: examination of sputum and pleural fluid. Bronchial obstruction syndrome. Diagnosis of acute and chronic bronchitis. Adverse effects of smoking on the respiratory system.

How to get a sputum test (general examination, sputum culture). Pleural puncture technique. Diagnostic value of pleural fluid. Laboratory examination of sputum and pleural fluid. The difference between transudate and exudate. Macroscopic, microscopic and bacteriological examination of native and painted vehicles. Bronchial obstruction syndrome, pathogenesis. Complaints, review. Palpation. Percussion, auscultation. Symptoms of acute and chronic bronchitis, the role of the profession in its development.

Interactive method: Academic controversy, pen in the middle of the table

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,3,4,5,6

Websites

Topic 8

Flatulence syndrome. Examination of patients with obstructive pulmonary disease, bronchial asthma, pulmonary emphysema. Pulmonary congestion syndrome. Inflammatory diseases of the lung tissue (croup and pneumonia).

Pathogenesis of airway obstruction syndrome in lung tissue. Complaints, review. Palpation.

Percussion, auscultation. Examination of patients with obstructive pulmonary disease. Bronchial asthma and pulmonary emphysema. Pathogenesis of pulmonary congestion syndrome. Complaints, review. Palpation. Percussion, auscultation. Examination of patients with inflammatory bowel disease. Symptoms of croup and pneumonia.

Interactive method: Group check, 3-stage interview, snowball

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,3,4,5,6

Websites

Topic 9

Syndrome of accumulation of air and fluid in the pleural cavity. Examination of patients with dry and exudative pleurisy. Hydrothorax, pneumothorax symptomatology. Types of pneumothorax (open, closed, closed). Pulmonary cavity syndrome. Examination of patients with lung abscess, bronchiectasis. Curation of patients. Writing a medical report.

Pathogenesis of air and fluid accumulation syndrome in the pleural cavity. Complaints, review. Palpation. Percussion, auscultation. Symptomatology of dry and exudative pleurisy. Hydrothorax, pneumothorax symptomatology. Types of pneumothorax (open, closed, closed). Pathogenesis of pulmonary cavity syndrome. Complaints, review. Palpation. Percussion, auscultation. Bronchiectasis, symptomatology of lung abscess. Independent work of students, under the supervision of a teacher.

Interactive method: Incident method, Gallery, academic controversy
References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,3,4,5,6
Websites

Topic10
Intermediate control №1 for respiratory diseases.
Methods of examination of patients with cardiovascular disease. Inquiry, review. Examination of the heart and peripheral arteries. Palpation of the heart area
Write a medical report on respiratory diseases. Inquiry. The main complaints are their pathogenesis. Pain in the heart area. Mechanism of pain formation, localization, nature, duration, irradiation, intensity, distribution. Shortness of breath, the intensity of the mechanism of heart attack. Cardiac asthma. Heartbeat. Cough, hemorrhage, mechanism of occurrence, diagnostic value. Review. Body structure. Es-hushi. Condition. Skin color. Examine the heart area. Cardiac curvature. Palpation of the apex and heartbeat. Determination of systolic and diastolic vibration. Symptoms of "cat wheezing". Palpation of the aorta, epigastric pulsation, palpation, differentiation of heart and liver pulsation.
Interactive method: summary method, pen in the middle of the table, 3-step interview
References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,3,4,5,6
Websites

Topic 11
Cardiac percussion. Determining the relative limit of heart failure in a healthy person and pathology. Determining the limit of absolute heart failure in a healthy person and in pathology of the respiratory organs, heart and blood vessels. Cardiac configuration, X-ray analysis. Diagnostic value
Techniques and rules of cardiac percussion. A method of determining the relative stiffness of the heart and the clot. Determining the waist of the heart. Relative heart rate. Changes in the boundaries of cardiac arrest in pathology: respiratory and cardiovascular diseases, changes in body position. A method of determining the absolute limit of cardiac arrest. The heart is an absolute measure of suffocation. Changes in the degree of suffocation of the heart in respiratory and cardiovascular diseases. The diagnostic value of these changes.
Interactive method: ration method, academic polemics
References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,4,6,8
Websites

Topic 12
Cardiac auscultation: characteristics of heart sounds in a healthy person. Hearing points of heart tones. The main properties of sounds: timbre, power. Increase and decrease of basic sounds.Changes in sounds in cardiovascular disease: the rhythm of the horse's hooves, the rhythm of quail singing, pendulum-like rhythm, embryocardia. Tachycardia, bradycardia, arrhythmia.
Cardiac auscultation. Auscultation rules. Covers the anterior wall of the chest projection and areas of their hearing. Cardiac auscultation: at different phases of breathing, in different body positions, at rest, and after physical exertion. The difference between systole and diastole on cardiac auscultation. The concept of heart sounds (1,2,3,4), the mechanism of their formation. The main (1,2,3,4) and additional mitral valve opening sounds, pericardial tone, division of sounds, hesitation, rhythm, their pathology change

Interactive method: problem solving, gallery
References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,4,6,8
Websites

Topic 13
Cardiac auscultation. The mechanism of formation of cardiac murmurs, their classification. Characterization of cardiac interactions in cardiovascular pathology. FKG recording system. The concept of normal FKG, EXOKG. Diagnostic value

Blood circulation. An understanding of the anatomy of the heart valves. Heart murmurs, the mechanism of their formation. Classification. The difference between functional and organic interactions. The relationship of interactions to the phase of cardiac activity. Systolic and diastolic noises: protodiastolic, mesodiastolic, presystolic, total, diastolic noises, timbre, duration. The best places to hear the noise. Pericardial friction noise, pleuropericardial noise. Auscultation of arteries and veins. Traube's two voices, pathological, diastolic, Vinogradov's interaction with Dyuroz. An understanding of FKG and its diagnostic significance. Understanding polycardiography examination and its importance. EXOKG and its diagnostic significance understanding of. The main indicators of EXOKG.

Interactive method: assimilation method, beehive, brainstorming
References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,4,5,6
Websites

Topic 14
Vascular examination. Pulse in a healthy person and in pathology of the cardiovascular system
characteristic. Arterial blood pressure. The concept of hypertension and hypotension. How to measure blood pressure. ECG recording.

Vascular examination. Rules and methods. The main characteristic of the pulse. Rules, methods and techniques of measuring blood pressure. Maximum, minimum, medium pressure. “Random” and basic pressure. Pulse pressure. The concept of hypertension and hypotension. Oxyllography, sphygmography, capillary microscopy. Determine the speed of the pulse wave. Phlebography. Venous pressure, method of determination. Measurement of bleeding rate, diagnostic value. The amount of blood circulating. Cardiac hemorrhage and peripheral resistance. Orthostatic test: a test to stop breathing. The main function of the heart. Heart-dipole. In the chest anatomical location of the heart. The concept of ECG and its diagnostic value. Primary and secondary links. The concept of vectorcardiography.
Interactive method: Academic polemics, rational method, Cluster.
References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,4,5,6
Websites

Topic 15
Normal ECG. The concept of teeth, intervals, segments and the mechanism of their formation. Cardiac dysfunction: automatism, contraction, agitation, conduction

The concept of the electrical axis of the heart. Normal ECG reading (rhythm, electrical axis, teeth, intervals). Basic clinical syndromes. When automatism is disturbed in the sinus node: sinus bradycardia, tachycardia, arrhythmia,
extrasystoles: ventricular, node, left and right ventricular extrasystoles. Paroxysmal tachycardia. Mercal arrhythmia, ventricular fibrillation. The concept of cardiac defibrillation. Conductivity disorder. Blockages: ventricular septum. GIS tumor of the right and left leg and its diagnostic and clinical significance.
Interactive method: 3-stage interview, brainstorming, gallery.
References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,3,4,6,8
Websites

Topic 16
Rheumatism and symptomatology of primary rheumatic heart disease. Etiology and pathogenesis of rheumatism. Examination of patients with rheumatism. Symptomatology of mitral regurgitation (mitral valve insufficiency and mitral stenosis).

Rheumatism and symptomatology of primary rheumatic heart disease. Etiology and pathogenesis of rheumatism. Examination of patients with rheumatism. Symptomatology of mitral regurgitation (mitral valve insufficiency and mitral stenosis).
Interactive method: snowball fight, academic polemics.
References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,3,4,6,8
Websites

Topic 17
Symptomatology of aortic defects (aortic valve insufficiency and aortic stenosis). Circulatory insufficiency (compensated and decompensated condition). Vascular insufficiency.

Symptomatology of aortic defects (aortic valve insufficiency and aortic stenosis). Circulatory insufficiency (compensated and decompensated condition). Vascular insufficiency.
Gipertoniya kasalligi haqida tushuncha. Etiologiya. Patogenez. Simptomatologiya. Shikoyati, ko'zdan kechirish, palpatsiya, perkussiya, auskultatsiya. Laborator-instrumental diagnostikasi. Gipertonik kriz haqida tushuncha, shoshilinch yordam.
Interactive method: 3-stage interview, incident method
References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,3,4,5,6
Websites

Topic 18
Symptomatology of hypertension. The concept of symptomatic hypertension (kidney, endocrine, central, hemodynamic).
Interactive method :, incident method, academic polemics
References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,3,4,5,6
Websites

Content of clinical topics

№	Summary of clinical training titles
1.	**The task of the science of propaedeutics of internal medicine. Procedure for examination of patients. The concept of medical deontology. Scheme of the medical report, methods of clinical examination of patients: interrogation, examination, palpation, percussion, auscultation. .Patient curation.Collection of patient complaints :.** : basic, 2nd level. Current medical history, life history collection.
2.	**Inquire the patient individually. Individual work of students with patients, sum of complaints and medical and life history. General examination of patients (general condition of the patient, state of consciousness, body composition). General examination rules, general examination of the patient. Examination of body parts: head, face, neck, limbs, skin. Fever. Temperature changes. Anthropometry. Anthropometric formula. Illness**

	rmulari, the importance of anthropometry in the diagnosis. Index Ketle. Patient curation. Individual work of students with patients. Summary of complaints and medical and life history. Condition of consciousness, types of disorders (clear, stupor, sopor, coma, irritating changes in consciousness). The most common types of coma (alcoholic, apoplexic, hypoglycemic, diabetic, hepatic, uremic, epileptic). Patient status (active, passive, compulsory). Changes in the shape and size of the head (microcephaly, pulsation of the head, etc.). Facial examination - clear facial features, gender and age. Pathological changes, Corvisor's face, lion's face, Parkinson's mask, Hippocrates' face, asymmetry of facial muscles, etc. Examine the eyes, eyelids, nose, and mouth, neck, skin, and mucous membranes. Methods for measuring body temperature. Fever characteristic. Degrees of temperature rise. Types of heating. Fever course. Crisis. Lizis. Hypothermia. The diagnostic value of temperature measurement. Heat dissipation.
3	**Palpation and percussion as a method of examination. Palpation of the thyroid gland and lymph nodes. Use of palpation and percussion as clinical examination. Palpation and percussion development history, techniques, methods, diagnostic value. Percussion sound characteristics. .** Sequence of lymph node palpation. Characterization of lymph nodes in the normal state. Palpation of the thyroid gland.i. Sounds obtained in percussion. Comparative and topographic percussion. Basic rules of percussion. **Patient curation**
4.	**Methods of examination of patients with respiratory diseases: interrogation, examination of the chest, palpation. Lung percussion, comparative percussion.** **The main complaints and pathogenesis. Chest pain, shortness of breath. Cough (dry, wet, duration, time of onset). Sputum secretion. Bleeding from the nose and lungs, duration.** Bleeding from the lungs, nasopharynx, esophagus, stomach. Diagnostic value. Disorders of nasal breathing. Examination of the upper respiratory tract. Grade 2 complaints: fever, weakness, loss of appetite. Life and medical history. Chest examination. Rhythm arrhythmias and shortness of breath. Chest palpation and percussion techniques, determination of resistance. Comparative percussion sequence. Changes in percussion sound over the lungs in norm and pathology**. . Patient curation**
5.	**Topographic percussion of healthy and respiratory patients. Auscultation as a method of objective examination. Auscultation techniques and rules. Pulmonary auscultation: basic respiratory sounds (vesicular, bronchial).** Pulmonary percussion technique. Determine the upper limit of the lung or its height and width. Determining the lower limit of the lungs. Conditional topographic lines of the thorax. Determining the motility of the lower edge of the lungs. Changes in the boundaries of the lungs in various physiological and pathological conditions. Techniques and rules of lung auscultation. Basic (vesicular and bronchial breathing) respiratory interactions, the mechanism of their occurrence. Changes in the main respiratory interactions: increase and decrease (physiological and pathological) and their diagnostic significance. **. Patient curation**
6.	**Pulmonary auscultation: additional respiratory noises (dry and wet wheezing, crepitation and pleural friction noises). Diagnostic value. Bronchophonia. Methods of functional instrumental examination of patients with respiratory diseases: spirometry, pneumotachometry, oxyhemotherapy. X-ray examination of the lungs, bronchoscopy, bronchography, tomography. Diagnostic value. Patient curation** Whistling, the mechanism of its occurrence. Dry low tone, high tone, wet tone, soundless,localization and distribution of small, medium, large vesicles, wheezing.

	Understanding lung radioscopy and radiography. Bronchography. Bronchoscopy. Tomography. Spirometry. Spirography. Importance of functional examination of patients with respiratory diseases. Cpirogram. Pneumatoxometry, oxyhemometry, pneumatoxography.
7.	**Laboratory examination: examination of sputum and pleural fluid. Bronchial obstruction syndrome. Diagnosis of acute and chronic bronchitis. Adverse effects of smoking on the respiratory system. Patient curation** How to get a sputum test (general examination, sputum culture). Pleural puncture technique. Diagnostic value of pleural fluid. Laboratory examination of sputum and pleural fluid. Examination of the transudate. The difference between the transudate and the exudate. Macroscopic, microscopic examination of native and painted vehicles, scopic, macroscopic and bacteriological examination. Bronchial Permeability Syndrome, Complaints, browse Palpation. Percussion, auscultation. Symptoms of acute and chronic bronchitis,
8.	**Flatulence syndrome. Examination of patients with obstructive pulmonary disease, bronchial asthma, pulmonary emphysema. Pulmonary congestion syndrome. Inflammatory diseases of the lung tissue (croup and pneumonia). Patient curation** Collection and examination of complaints of flatulence in the lung tissue. Palpation. Percussion, auscultation. Examination of patients with obstructive pulmonary disease Bronchial asthma and pulmonary emphysema. Collection and examination of complaints of pulmonary congestion syndrome. Palpation. Percussion, auscultation. Examination for pneumonia. Symptoms of croup and pneumonia.
9.	**Syndrome of accumulation of air and fluid in the pleural cavity. Examination of patients with dry and exudative pleurisy. Hydrothorax, pneumothorax symptomatology. Types of pneumothorax (open, closed, closed). Pulmonary cavity syndrome. Examination of patients with lung abscess, bronchiectasis. Curation of patients. Writing a medical report. Curation of patients** Collection and examination of complaints of air and fluid accumulation syndrome in the pleural cavity. Palpation. Percussion, auscultation. Symptomatology of dry and exudative pleurisy. Hydrothorax, pneumothorax symptomatology. Types of pneumothorax (open, closed, closed). Collection of complaints of pulmonary cavity syndrome, browse Palpation. Percussion, auscultation. Bronchiectasis, symptomatology of lung abscess. Independent work of students, under the supervision of a teacher.
10.	**Intermediate control №1 for respiratory diseases.** **Methods of examination of patients with cardiovascular disease. Inquiry, review. Examination of the heart and peripheral arteries. Palpation of the heart area** **Curation of patients** **Methods of examination of patients with cardiovascular disease. Inquiry. The** main complaints are pain in the heart area. Mechanism of pain formation, localization, nature, duration, irradiation, intensity, distribution. Shortness of breath, the intensity of the mechanism of heart attack. Cardiac asthma. Heartbeat. Cough, hemorrhage, mechanism of occurrence, diagnostic value. Review. Body structure. Es-hushi. Condition. Skin color. Examine the heart area. Heart fat. Palpation of the apex and heartbeat. Determination of systolic and diastolic vibration. Symptoms of "cat wheezing". Palpation of the aorta, epigastric pulsation, differentiation from heart and liver pulsation.
11.	**Cardiac percussion. Determining the relative threshold of heart failure in a healthy person and pathology. Determining the threshold of absolute heart failure in a healthy person and in pathology of the respiratory organs, heart and blood vessels. Cardiac configuration, X-ray analysis. Diagnostic value** **Curation of patients**

	Techniques and rules of cardiac percussion. A method of determining the relative stiffness of the heart and the clot. Determining the waist of the heart. Determining the relative limit of cardiac insufficiency changes in the body: in diseases of the respiratory system and heart, vascular disease, changes in body position. A method of determining the absolute limit of cardiac arrest. The heart is an absolute measure of suffocation. Changes in the degree of suffocation of the heart in respiratory and cardiovascular diseases. The diagnostic value of these changes.
12.	**Cardiac auscultation: characteristics of heart sounds in a healthy person. Hearing points of heart tones. The main properties of sounds: timbre, power. Increase and decrease of basic sounds. Changes in sounds in cardiovascular disease: the rhythm of the horse's hooves, the rhythm of quail singing, pendulum-like rhythm, embryocardia. Tachycardia, bradycardia, arrhythmia. Curation of patients** Cardiac auscultation. Auscultation rules. Projection of the flaps on the anterior wall of the chest and their auditory areas. Cardiac auscultation: at different phases of breathing, in different body positions, at rest, and after physical exertion. The difference between systole and diastole on cardiac auscultation. The concept of heart sounds (1,2,3,4), the mechanism of their formation. The main (1,2,3,4) and additional mitral valve opening sounds, pericardial tone, division of sounds, hesitation, rhythm, their pathology change
13.	**Cardiac auscultation. The mechanism of formation of cardiac murmurs, their classification. Characterization of cardiac interactions in cardiovascular pathology. FKG recording system. As far as normal FKG, EXOKG are concerned. Diagnostic value. Curation of patients** Blood circulation. Cardiac interactions, the mechanism of their formation. Distinguish functional and organic interactions. Noise to the phase of cardiac activity Systolic and diastolic noises: protodiastolic, mesodiastolic, presystolic, total, diastolic nature, interactions, duration of interactions. The best places to hear the noise. Pericardial friction noise, pleuropericardial noise. Perform auscultation of arteries and veins. Traube's two voices, pathological diastolic, Vinogradov's interaction with Dyuroz. An understanding of FKG and its diagnostic significance. Understanding polycardiography examination and its importance. EXOKG and its diagnostic significance understanding of. The main indicators of EXOKG.
14.	**Vascular examination. Pulse in a healthy person and in pathology of the cardiovascular system** **characteristic. Arterial blood pressure. The concept of hypertension and hypotension. How to measure blood pressure. ECG recording. Curation of patients** Vascular examination. Rules and methods. The main characteristic of the pulse. Rules, methods and techniques of measuring blood pressure. Maximum, minimum, medium pressure. “Random” and basic pressure. Pulse pressure. The concept of hypertension and hypotension. Oxyllography, sphygmography, capillary microscopy. Determine the speed of the pulse wave. Phlebography. Venous pressure, method of determination. Measurement of bleeding rate, diagnostic value. The amount of blood circulating. Cardiac hemorrhage and peripheral resistance. Orthostatic test: a test to stop breathing. The anatomical location of the heart in the thorax is clearly diagnostic. The concept of ECG. Primary and secondary links. The concept of vectorcardiography.
15.	**Normal ECG. The concept of teeth, intervals, segments and the mechanism of their formation. ECG in case of impaired motor functions. Cardiac dysfunction: automatism, contraction, agitation, conduction. Curation of patients** The concept of the electrical axis of the heart. Normal ECG reading (rhythm,

	electrical axis, teeth, intervals). Basic clinical syndromes. When automatism in the sinus node: sinus bradycardia, tachycardia, arrhythmia, extrasystoles: ventricular, node, left and right ventricular extrasystoles. Paroxysmal tachycardia. Mercal arrhythmia, ventricular fibrillation. Perform cardiac defibrillation. Conductivity disorder. Blockages: ventricular septum. GIS tumor of the right and left leg and its diagnostic and clinical significance.
16.	**Rheumatism and symptomatology of primary rheumatic heart disease. Etiology and pathogenesis of rheumatism. Examination of patients with rheumatism. Symptomatology of mitral regurgitation (mitral valve insufficiency and mitral stenosis). Curation of patients** Rheumatism and symptomatology of primary rheumatic heart disease. Examination of patients with rheumatism. Examination of patients with mitral regurgitation and mitral regurgitation (mitral valve insufficiency and mitral stenosis).
17.	**Symptomatology of aortic defects (aortic valve insufficiency and aortic stenosis). Circulatory insufficiency (compensated and decompensated condition). Vascular insufficiency. Curation of patients** Examination of patients with aortic defects (aortic valve insufficiency and aortic stenosis). Circulatory insufficiency (compensated and decompensated condition). Vascular insufficiency.
18.	**Symptomatology of aortic defects (aortic valve insufficiency and aortic stenosis). Circulatory insufficiency (compensated and decompensated condition). Vascular insufficiency. Curation of patients** Examination of patients with aortic defects (aortic valve insufficiency and aortic stenosis). Circulatory insufficiency (compensated and decompensated condition). Vascular insufficiency.

Names of lectures

№	**Names of lectures**	**Watch**
1	Introduction. The history of the development of the subject. Goal and tasks. Methods of clinical examination of the patient. Inquiry. The history of the development and life of the patient. Methods of physical examination of the patient: examination, palpation, percussion (comparative and topographic) and auscultation.	2
2	Study of patients with respiratory diseases: questioning: complaints, general examination, palpation and percussion (comparative and topographic) and auscultation of the lungs. Respiratory noises: main and secondary. Functionally instrumental research methods: bronchoscapia, bronchography, tomography, spirography. Macrota research.	2
3	The main clinical syndromes in respiratory diseases. Lung tissue hardening syndrome. Cavity Syndrome. Syndrome of accumulation of air or fluid in the pleural cavity. Bronchial obstruction syndrome.	2
4	Study of patients with diseases of the circulatory system. Questioning examination by palpation, percussion and auscultation of the heart. Heart sounds are normal and pathological. Heart murmurs	2
5	The concept of PCG, ECG and ECHOKG. ECG signs of hypertrophy and myocardial infarction. Arrhythmias. Myocardial fibrillation. Acute rheumatic fever. Heart defects. Mitral	2

	and aortic defects.	
	Total	10

Names of lectures

Lecture 1

History of development, tendencies of the subject of propaedeutics of internal diseases. Medical deontology and the basics of medical secrecy. Iatrogeny. The concept of diagnosis and semiotics. General patient examination plan. The tasks of the propedeutic clinic.

A brief history of the development of internal medicine. Therapeutic schools of the Republic of Uzbekistan. Basic g
and the objectives of the course of internal medicine propaedeutics. Medical deontology. Survey technique
sick. The value of questioning, collecting anamnesis of therapeutic patients in the diagnosis of the disease
General examination of the patient. Anthropometry. Thermometry. Position, state, consciousness
sick. Definition of the constitutional type. Skin and mucous membranes. Swelling
localization, detection methods, Lymph nodes.

Literature: 1. (main literature) - 1,2,3
2. (additional lit.) - 1,2,4,12

Lecture 2

Study of patients with respiratory diseases: questioning: complaints, general examination, palpation and percussion (comparative and topographic). Rules and technique of auscultation of the lungs. Respiratory noises: main and secondary. Functionally instrumental methods of studying patients with respiratory diseases.

Study of patients with respiratory diseases: questioning: complaints, general examination, palpation and percussion of the lungs. Auscultation as a method of patient examination. The concept of the main and side respiratory noises, the mechanism of their occurrence. Wheezing, the mechanism of their formation. Dry, low, high pitched. Wet: voiced and non-voiced, their localization. Crepitus. Friction noise
pleura. Bronchophonia. Functional and instrumental research methods for patients with respiratory diseases.

Literature: 1. (main literature) - 1,2,3
2. (additional lit.) - 1,2,3,4,8

Lecture 3

The main clinical syndromes in respiratory diseases. Bronchial syndrome obstruction. Symptomatology of acute and chronic bronchitis. Syndrome enhancement airiness in the lung tissue. Symptomatology of bronchial asthma and pulmonary zymphysema. The negative effects of smoking on the respiratory system. Reflux bronchitis, reflux bronchial asthma.

Impaired ventilation of bronchial tissue. Respiratory development. failure. Symptoms
bronchitis, the mechanism of their development. Symptoms of bronchial asthma and pulmonary emphysema. Conc
types of ventilation disorders (restriction, obstruction, alveolar-capillary block).
The concept of symptoms and syndromes of the main nosological forms of respiratory diseases.

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,3,4,5,6

Lecture 4

Lung tissue compaction syndrome. Symptomatology of focal and croupous pneumonia. Syndrome of accu pleural cavity and cavity formation in the lung. Symptomatology of pleurisy (dry and exudative), Diagnosis of bronchiectasis and lung abscess.

Impaired ventilation of the lung tissue. The development of respiratory failure. Symptoms of focal and lobar pne development. Symptoms of pleurisy (dry and exudative), hydrothorax, pneumothorax. The concept and (restriction, obstruction, alveolar-capillary block). Diagnosis of bronchiectasis and lung abscess.

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,3,4,5,6,8Лекция 5

Study of patients with diseases of the circulatory system. Questioning examination palpation and percussion of the heart.

Diseases of the circulatory system. The main complaints and their pathogenesis. Pain in the region of the heart mechanism of occurrence, nature, intensity, localization and their duration. Dyspnea, mechanism of occurrence. Cardiac asthma. Palpitations. The position of the patient. Skin color integuments, pastiness. Edema, mechanism of occurrence. Ascites, vein swelling. Arterial ripple. Heart hump. Palpation of the apical and cardiac impulse. Feline symptom purr “, localization. The method for determining the boundaries is related. and the absolute dullness of the heart. The value of cardiac dullness in pathology.

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,3,4,5,6

Lecture 6

Auscultation of the heart. Heart sounds are normal and pathological. Heart murmurs. The concept of PCG, ECG and ECHOKG.

Technique of auscultation of the heart, the place of auscultation. Differences between systole and diastole, the concept of heart sounds, the mechanism of their occurrence. Basic (1,2,3,4) and additional (mitral valve opening tone, gallop rhythm, quail rhythm). Basic properties of tones: rhythm, strength, timbre, splitting, bifurcation. Embryocardia. Tachycardia, bradycardia, arrhythmias. Heart murmurs, mechanism of occurrence.

Classification of functional noise. Systolic. and diastolic murmurs. Pericardial rubbing noise. Pleurocardial murmur. Trauabe double tone. Pathological diastolytic murmur of Durazier.

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,4,6,8

Lecture 7

Symptomatology of rheumatism and primary rheumatic heart disease. Heart defects (mitral and

aortic). Acute and chronic circulatory insufficiency.

General ideas about the etiology and pathogenesis of rheumatism. Symptomatology and diagnostics acquired heart defects. Insufficiency of the mitral valve, stenosis of the left atrial ventricular opening, aortic valve failure, aortic stenosis. Failure tricuspid valve. Concomitant heart defects.

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,4,5,6

Lecture 8

Diagnosis of hypertension. Ischemic heart disease. Symptomatology of angina pectoris and heart attack myocardium. Relief of an attack of angina pectoris

General understanding of the etiology and pathogenesis of hypertension and symptomatology

hypertension. Symptomatology and diagnosis of coronary heart disease: angina pectoris, heart attack myocardium. The value of ECG and hyperenzymemia in the diagnosis of myocardial infarction.

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,3,4,6,8

Names of practical lessons

№	Name of classes	Practice business	Practice business	Total
1	Objectives of the subject of internal medicine propaedeutics. The procedure for examining patients. The concept of medical deontology. The scheme of the medical history, methods of clinical examination of the patient: questioning, examination, palpation, percussion, auscultation. Patient complaints: main, minor. History of the present disease. Anamnesis of life.	2	2	4
2	Independent questioning of the patient. Independent work of students with the patient. Collection of complaints, medical history and life. General examination of the patient (general condition of the patient, consciousness, position, physique). General inspection rules. General examination of the patient. Examination of parts of the body: head, face, neck, limbs, skin. Fever. Temperature curves. Anthropometry. Anthropometric formulas. The value of anthropometry in the diagnosis of diseases. Quetelet index.	2	2	4
3	Palpation and percussion - as a research method. Palpation of the lymph nodes and thyroid gland. Definition of palpation and percussion - as a clinical research method. The history of the development of palpation and percussion, technique, methods, diagnostic value. Characteristics of percussion sound.	2	2	4
4	Methods of examination of a patient with respiratory diseases: questioning, examination, palpation of the chest. Lung percussion, comparative percussion.	2	2	4

5	Topographic percussion in a healthy person and in respiratory pathology. Auscultation - as a method of objective research. Auscultation rules and techniques. Auscultation of the lungs: basic breathing sounds (vesicular and bronchial).	2	2	4
6	Auscultation of the lungs: side respiratory noises (dry and wet rales, crepitus and pleural friction noise). Diagnostic value. Bronchophonia. Functional and instrumental research methods for patients with respiratory diseases: spirometry, pneumotachometry, oxyhemotherapy. X-ray methods of lung examination, bronchoscopy, bronchography, tomography. Diagnostic value.	2	2	4
7	Laboratory exercise: examination of sputum and pleural fluid. Syndromes of impaired bronchial patency. Diagnosis of acute and chronic bronchitis. Reflux bronchitis. The negative effects of smoking on the respiratory system.	2	2	4
8	Syndrome of increased airiness of the lung tissue. Examination of patients with obstructive pulmonary diseases, bronchial asthma and pulmonary emphysema. Reflux - bronchial asthma. Lung tissue hardening syndrome. Inflammatory lung diseases - (croupous and focal), pneumonia.	2	2	4
9	Syndrome of accumulation of fluid and air in the pleural cavity. Examination of patients with pleurisy (dry and exudative). Symptomatology of hydrothorax, pneumothorax. Lung cavity syndrome. Examination of patients with bronchiectasis, lung abscess. Patient supervision. Compilation of a medical history.	2	2	4
10	Intermediate control No. 1 for the respiratory system. Methods of examination of patients with CVS diseases. Inquiry, inspection. Examination of the area of the heart and peripheral vessels. Palpation of the region of the heart.	2	2	4
11	Percussion of the heart. Determination of the boundaries of relative cardiac dullness in a healthy person and in pathology of the circulatory system. Determination of the boundaries of absolute cardiac dullness in a healthy person and in pathology of the respiratory and circulatory organs. Heart configuration, analysis of radiographs. Diagnostic value.	2	2	4
12	Auscultation of the heart: a characteristic of normal heart sounds in a healthy person. Places for listening to heart sounds. Basic properties of tones: strength, timbre. Weakening and strengthening of the fundamental sounds of the heart. Changes in heart sounds in CVS: "gallop rhythm", "quail rhythm", pendulum rhythm, embryocardia. Tachycardia, bradycardia, arrhythmia.	2	2	4

13	Auscultation of the heart. The mechanism of formation of heart murmurs, their classification. Characteristics of heart murmurs in cardiovascular pathology. PCG recording system. Normal PCG. The concept of echocardiography. Diagnostic value.	2	2	4
14	Research of blood vessels. Characteristics of the pulse in a healthy person and in pathology of the cardiovascular system. ... The concept of hypertension and hypotension. A / D measurement methods. ECG decoding.	2	2	4
15	Normal ECG. The concept of teeth, intervals and segments on the ECG and the mechanism of their formation. ECG in violation of the function of automatism, excitability. Violation of the functions of the heart: automatism, excitability, conduction, contractility.	3	3	6
16	Symptomatology of rheumatism and primary rheumatic heart disease. Etiology and pathogenesis of rheumatism. Examination of patients with rheumatism. Symptomatology of rheumatism and primary rheumatic heart disease. Symptomatology of mitral heart defects (mitral valve insufficiency and stenosis).	3	3	6
17	Symptomatology of aortic heart diseases (insufficiency and stenosis of the aortic mouth). Lack of blood circulation (compensated and decompensated state). Vascular insufficiency.	3	3	6
18	Symptomatology of hypertension. The concept of symptomatic hypertension (renal, endocrine, central, hemodynamic).	3	3	6

Summary of practical lessons

Topic 1

Objectives of the subject of internal medicine propaedeutics. The procedure for examining patients. The concept of medical deontology. The scheme of the medical history, methods of clinical examination of the patient: questioning, examination, palpation, percussion, auscultation. Patient complaints: main, minor. History of the present disease. Anamnesis of life.

Introduction to the clinic. Acquaintance with the department of propaedeutics of internal diseases and the requirements for students at the department. Concept - internal diseases. Patient research technique (questioning, examination, percussion, palpation, auscultation), main clinics. and laboratory research. The science of the relationship between doctor and patient, duty and responsibilities
doctor is called medical deontology. The scheme of the case history, methods of clinics. survey. Patient complaints: major, minor. The value of the case history as a scientific and medical legal document. The contribution of domestic therapists to the development of a case history scheme (Ar-Roziy). Anamnesis of life. Life and work history. General examination of the patient (state, consciousness, position, physique). Physical research methods. Examination of patients by systems. Preliminary diagnosis. Laboratory and instrumental research methods. Clinical diagnosis.

Interactive method: vault, brainstorming, Gallery tour, snowball method

Literature: 1. (main literature) - 1,2,3

Topic 2

Self-questioning of the patient. Independent work of students with the patient. Collection of complaints, medical history and life. General examination of the patient (general condition of the patient, consciousness, position, physique). General inspection rules. General examination of the patient. Examination of body parts: head, face, neck, limbs, skin. Fever. Temperature curves. Anthropometry. Anthropometric formulas. The value of anthropometry in the diagnosis of diseases. Quetelet index.

Collection of complaints and anamnesis of illness and life. General examination of the patient. State of consciousness

types of its violation (clear, stupor, stupor, coma). The position of the patient (active, passive, forced). Features of the physique. The concept of the constitutional type (normosthenic, asthenic, hypersthenic). Changes in the shape and size of the head (microcephaly, head dropsy, head throbbing). Examination of the face - expression, signs of gender, age. Pathological changes - puffy, feverish, face of "Corvizar", "lion's face", "Parkinson's mask", face of "wax doll", "Hippocrates face", sardonic laughter, asymmetry of muscle movements and faces. Examination of the eyes and eyelids, the shape of the nose, examination of the oral cavity, examination of the neck. Skin and visible mucous membranes. Pallor, shades of color, pigmentation, rashes, hemorrhages, scratching. Expansion of the veins.

Skin turgor. Edema, localization, detection methods (“blister test”). Research methods of lymph nodes, the value of their biopsy, lymphography. Muscles. The importance of dynamometry and myography. The skeletal system. Deformation. Joints, their mobility, “morning stiffness”. Examination of fingers and toes, their changes in pathological. processes. Characteristics of fevers, degree of temperature rise. Crisis, lysis. Hypothermia. Diagnostic temperature measurement value.

Interactive method:

Weak link, round table method, handle in the middle of the table

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,4,12

Topic 3

Palpation and percussion - as a research method. Palpation of the lymph nodes and thyroid gland. Definition of palpation and percussion - as a clinical research method. The history of the development of palpation and percussion, technique, methods, diagnostic value. Characteristics of percussion sound.

Sequence of palpation of lymph nodes (by groups of lymph nodes). Characteristics of the state of the lymph nodes are normal. Palpation of the thyroid gland. The role of Auenbrugger in the development of the percussion method, its introduction into practice by Corvisar. The significance of the works of domestic researchers in the development of this method. Physical rationale for percussion, sounds produced by percussion. Comparative and topographic percussion. Basic rules of percussion. Interactive method: 3 steps. interview, brainstorming, bee swarm

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,3,4,8

Topic 4

Methods of examination of a patient with respiratory diseases: questioning, examination, palpation of the chest. Percussion of the lungs, comparative percussion.

The main complaints and their pathogenesis. Pain in the chest area (character, their localization,

duration, intensity, irradiation, methods of relief).

Dyspnea (physiological, pathological; expiratory, inspiratory, mixed). Cough (dry, moist; duration, time of onset; volume, and tone). Sputum separation - the nature, quantity, presence or absence of odor, sputum discharge depending on the patient's position. Bleeding, nasal and pulmonary, their duration. Difference of hemoptysis from pulmonary, nasopharyngeal,

esophageal, gastric bleeding. Diagnostic value. Violation of nasal breathing. Studies in the upper respiratory tract Secondary complaints: fever, weakness, decreased appetite. The shape of the chest in health and disease. Respiration types (norm and pathology). Determination of chest pain, voice tremor and resistance. Changes in the percussion sound over the lungs in normal and pathological conditions.

Interactive method: Academic field., Weak. link method snow.

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,3,4,8

Topic 5

Topographic percussion in a healthy person and in respiratory pathology.

Auscultation - as a method of objective research. Auscultation rules and techniques. Auscultation of the lungs: basic breathing sounds (vesicular and bronchial).

Topographic percussion in a healthy person and in respiratory pathology. Determination of the upper boundaries of the lungs or their height (front and back) and their width (Kroenig fields). Determination of the lower boundaries of the lung. Conditional topographic chest lines. Determination of the mobility of the lower edge of the lung. Changing the boundaries of the lung at various physiological. and pathological. states. The main respiratory noises (vesicular and bronchial), the mechanism of their occurrence, their change: strengthening and weakening (physiological and pathological) and their diagnostic value.

Interactive method: 3 steps. interview, round table, snowball method

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,3,4,5,6

Topic 6

Auscultation of the lungs: side respiratory noises (dry and wet rales, crepitus and pleural friction noise). Diagnostic value. Bronchophonia. Functional and instrumental research methods for patients with respiratory diseases: spirometry, pneumotachometry, oxyhemotherapy. X-ray research methods

lungs, bronchoscopy, bronchography, tomography. Diagnostic value.

Auscultation of the lungs. Wheezing, the mechanism of formation. Dry low-tone (bass), high-treble. Wet: voiced, not voiced, fine-, medium- and large-bubbly, localization and prevalence of wheezing. The effect of coughing and deep breathing on their appearance and disappearance. Diagnostic value. Bronchography. Bronchoscopy. Tomography. Spirometry, Spirography. The value of a functional study of the respiratory system in the diagnosis of insufficiency of the function of external respiration. Spirogram analysis. Pneumotachometry, oximetry, pneumotachography.

Interactive Method: Assistance, Weak Link, Swarm, Ration Method

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,3,4,5,6

Topic 7

Laboratory exercise: examination of sputum and pleural fluid. Syndromes of impaired bronchial patency. Diagnosis of acute and chronic bronchitis. Reflux bronchitis. The negative effects of smoking on the respiratory system.

Method of taking sputum for research (general sputum analysis, bacteriological culture, diagnostic value of sputum. Technique of pleural puncture. Diagnostic value of pleural punctate. Laboratory examination of sputum and pleural punctate. Difference between transudate and exudate. Examination, microscopy of native and stained preparations, bacterioscopy. Syndromes violations bronchial patency. Diagnosis of acute and chronic bronchitis. The negative effects of smoking on the respiratory system.

Interactive method: Academic field. handle in the middle of the table

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,3,4,5,6

Topic 8

Syndrome of increased airiness of the lung tissue. Examination of patients with obstructive pulmonary diseases, bronchial asthma and pulmonary emphysema. Reflux - bronchial asthma. Lung tissue hardening syndrome. Inflammatory lung diseases - (croupous and focal), pneumonia.

Pathogenesis of the development of the syndrome of increased airiness of the lung tissue. Complaints. Inspection.

Palpation. Percussion. Auscultation. Symptomatology of bronchial asthma and pulmonary emphysema. Inflammatory diseases of the lungs (croupous and focal) pneumonia. Pathogenesis of the development of lung tissue compaction syndrome. Complaints. Inspection. Palpation. Percussion. Auscultation. Examination of patients with inflammatory lung diseases. Symptomatology of croupous and focal pneumonia.

Interactive method: Group track, 3 steps. interview, snow method.

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,3,4,5,6

Topic 9

Syndrome of accumulation of fluid and air in the pleural cavity. Survey patients with pleurisy (dry and exudative). Symptomatology of hydrothorax, pneumothorax. Syndrome of the cavity in the lung. Examination of patients with bronchiectasis, lung abscess. Patient supervision. Compilation of a medical history.

Hydrothorax, pneumothorax. Pathogenesis of the development of the syndrome of accumulation of fluid and air in the pleural cavity. Complaints. Inspection. Palpation. Percussion. Auscultation. Symptomatology of pleurisy: dry and exudative. Symptomatology of hydrothorax and pneumothorax. Types of pneumothorax (open, closed and valve). Independent work of students with patients under the guidance of a teacher. Pathogenesis of the development of cavity syndrome in the lung. Complaints. Inspection. Palpation. Percussion. Auscultation. Symptomatology of bronchiectasis, lung abscess.

Interactive Method: Incident Method, Gallery Tour, Academic Field.

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,3,4,5,6

Topic 10

Intermediate control No. 1 for the respiratory system. Survey methods patients with CVS diseases. Inquiry, inspection. Examination of the region of the heart and peripheral vessels. Palpation of the region of the heart.

Control of students' knowledge on the symptomatology of respiratory diseases. Intermediate control No. 1. OSCE.

Inquiry, general examination of patients with CVS diseases. The main complaints and their pathogenesis. Pain in the region of the heart, the mechanism of their occurrence. The nature of the pains, their localization, duration, intensity, irradiation, connection with excitement with physical activity, night pains, methods of relief. Shortness of breath, mechanism of occurrence, intensity. Cardiac asthma. Palpitations. Interruptions from excitement and other unpleasant sensations in the region of the heart. Cough, hemoptysis, character, mechanism

occurrence, diagnostic. meaning. Inspection. Body type. Consciousness. The position of the patient. Skin color. The difference between pulmonary and cardiac cyanosis. Pasty. Edema, the mechanism of occurrence, their localization, identification, control over the dynamics. Diagnostic meaning.

The difference between cardiac edema and renal edema.

Interactive method: vault, handle on the middle of the table, 3 steps. interview

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,3,4,5,6

Topic 11

Percussion of the heart. Determination of the boundaries of relative cardiac dullness in a healthy person and in pathology of the circulatory system. Determination of the boundaries of absolute cardiac dullness in a healthy person and in pathology of the respiratory and circulatory organs. Heart configuration, analysis of radiographs. Diagnostic value.

A technique for determining the projection of various parts of the heart on the anterior wall of the chest. cells and their relation to the percussion borders of the heart. Changing the boundaries of the heart. dullness with a change in body position and diseases of the respiratory system and CVS. Diagnostic meaning. Heart configuration. Analysis of radiographs. Rules and technique of percussion of the heart. The size of the absolute dullness of the heart.

Interactive method: method of rationing, academic controversy

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,4,6,8

Topic 12

Auscultation of the heart: a characteristic of normal heart sounds in a healthy person. Places for listening to heart sounds. Basic properties of tones: strength, timbre. Weakening and strengthening of the fundamental sounds of the heart. Changes in heart sounds in CVS: "gallop rhythm", "quail rhythm", pendulum rhythm, embryocardia. Tachycardia, bradycardia, arrhythmia.

Rules for auscultation of the heart. The projection of the valves on the anterior chest wall and the place of their auscultation. Method of auscultation of the heart. Auscultation of the heart in different phases of breathing, in different positions of the patient, at rest and in physical. load. The difference between systole and diastole of the heart during auscultation. The concept of heart tones (1,2,3,4), the mechanism of their occurrence. Basic properties of tones, their weakening and strengthening.

Interactive Method: Problem Solving Method, Gallery Tour

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,4,6,8

Topic 13

Auscultation of the heart. The mechanism of formation of heart murmurs, their classification.

Characteristics of heart murmurs in cardiovascular pathology. PCG recording system. Normal PCG. The concept of echocardiography. Diagnostic value.

Concept of the anatomy of the heart valves. Heart murmurs, mechanism of origin, classification. The difference between organic and functional noise. Systolic. and diastolic murmurs: protodiastolic, mesodiastolic., presystolic, total, diastolic. The nature, timbre, duration of the noise. The place of the best listening to heart murmurs, the ways of their distribution. Pericardial friction murmur, pleuropericardial murmurs. Auscultation of arteries and veins. Double tone Traube, pathological, diastolic murmur of Vinogradov - Durozier. The concept of phonocardiography, its importance in the diagnosis of heart disease. The concept of polycardiographic research and its significance for judging the functional state of the heart. The main indicators of echocardiography.

Interactive method: Assistance, bee swarm, brainstorming

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,4,5,6

Topic 14

Research of blood vessels. Characteristics of the pulse in a healthy person and in pathology of cardio-vascular system. ... The concept of hypertension and hypotension. A / D measurement methods. ECG decoding.

Rules and methodology for studying the pulse, its main characteristics (Latin terminology). Rules, methodology and technique for measuring blood pressure. Maximum, minimum, average pressure, “

random ”and main pressure. Pulse pressure. Oscillography. Sphygmography.

Capillaroscopy. Def. the speed of the pulse wave. Phlebography. Venous pressure determination method. Blood flow velocity, measurement, diagnostic meaning. Qty

blood. Cardiac output and peripheral. resistance. Orthostatic test, breath hold test. ECG registration system. The concept of ECG, its diagnostic. meaning. Electrocardiograph. Main and additional leads. Rules, methodology and technique of ECG registration. Concept of vectorcardiography.

Interactive method: Academic controversy, met.ratations, Cluster

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,4,5,6

Topic 15

Normal ECG. The concept of teeth, intervals and segments on the ECG and the mechanism of their formation. ECG in violation of the function of automatism, excitability. Dysfunction of the heart: automatism, excitability, conduction, contractility.

The concept of the electrical axis of the heart. Method for decoding normal ECG (rhythm, electrical axis, heart rate, calculation of teeth and intervals). Main clinics syndromes. Violation of the function of automatism of the sinus node: sinus bradycardia, tachycardia, arrhythmia. Extrasystoles: atrial, nodal, ventricular, right and left ventricular. Paroxysmal tachycardia. Atrial fibrillation.

Flicker of the ventricles. The concept of cardiac defibrillation. Violation of conductivity. Atrioventricular block. Right and left bundle branch block. Diagnosis and clinical significance of conduction disorders.

Interactive method: 3 steps. interview, brainstorming, gallery

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,3,4,6,8

Topic 16

Symptomatology of rheumatism and primary rheumatic heart disease. Etiology and pathogenesis of rheumatism. Examination of patients with rheumatism. Symptomatology of rheumatism and primary rheumatic heart disease. Symptomatology of mitral heart defects (mitral valve insufficiency and stenosis).

General ideas about the etiology and pathogenesis of rheumatism. Heart defects. General understanding of congenital heart defects. General understanding of the etiology and pathogenesis of acquired heart defects. Insufficiency of the mitral valve, hemodynamics with insufficiency of the mitral valve. Symptomatology (complaints, examination, palpation, percussion, auscultation). Mitral stenosis, hemodynamics in mitral stenosis. Symptomatology (complaints, examination, palpation, percussion, auscultation). Concomitant heart defects. Changes in ECG, PCG and ECHOKG in mitral heart disease.

Interactive method: snow method, academic controversy

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,3,4,6,8

Topic 17

Symptomatology of aortic heart diseases (insufficiency and stenosis of the aortic mouth). Insufficiency of blood circulation (compensated and decompensated state). Vascular insufficiency.

General understanding of the etiology and pathogenesis of acquired heart defects. Insufficiency of the aortic valve, hemodynamics in case of its insufficiency. Symptomatology (complaints, examination, palpation, percussion, auscultation). Aortic valve stenosis, hemodynamics with aortic valve stenosis. Symptomatology. Changes in ECG, PCG, and echocardiography in aortic heart disease. The concept of circulatory failure. The mechanism of development of the heart. failure.

Acute and chronic syndromes failure. Left ventricular deficiency. Clinical manifestations (cardiac asthma, pulmonary edema), diagnosis, emergency treatment. Stages of chronic heart failure (compensated and decompensated state). Mechanisms for compensating for heart failure.

Interactive method: 3 steps. interview, incident method

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,3,4,6,8

Topic 18

Symptomatology of hypertension. The concept of symptomatic hypertension (renal, endocrine, central, hemodynamic).

The concept of hypertension. General concepts of ztiology and pathogenesis of hypertensive. disease. Risk factors. Target organs. Symptomatology. Main complaints and changes in CVS during an objective examination. Laboratory and instrumental diagnostics of hypertensive. disease. The concept of a hypertensive crisis and emergency care for it. The main groups of symptomatic
hypertension.

Interactive method: incident method, acad. controversy

Literature: 1. (main literature) - 1,2,3

2. (additional lit.) - 1,2,3,4,5,6

The name of the clinical sessions and their content.

1.	**Objectives of the subject of internal medicine propaedeutics. The procedure for examining patients. The concept of medical deontology. The scheme of the medical history, methods of clinical examination of the patient: questioning, examination, palpation, percussion, auscultation. Patient complaints: main, minor. History of the present disease. Anamnesis of life.** Patient supervision Methods of patient examination (questioning, examination, percussion, palatation, auscultation), main pathology, auscultation, basic clinical and laboratory studies. Schemes of the history of the disease, methods of the disease Methods of clinical examination: Patient complaints: major, minor. The value of medical history as scientific copper Qing Legal Document. Anamnesis of life. Life and work history. General examination of the patient (state, consciousness, position, physique). Physical research methods. Examination of patients by systems. Preliminary diagnosis. Laboratory instrumental research methods. Clinical diagnosis.
2.	**Self-questioning of the patient. Independent work of students with the patient. Collection of complaints, medical history and life. General examination of the patient (general condition patient, consciousness, position, physique). General inspection rules. General examination of the patient. Examination of body parts: head, face, neck, limbs, skin.** **Fever. Temperature curves. Anthropometry. Anthropometric formulas.** **The value of anthropometry in the diagnosis of diseases. Quetelet index. Patient management.** Collection of complaints and anamnesis of illness and life. General examination of the patient. State of consciousness, types of its violation (clear, stupor, stupor, coma). The position of the patient (active, passive, forced). Features of the physique. The concept of the constitutional type (normosthenic, asthenic, hypersthenic). Changes in the shape and size of the head (microcephaly, head dropsy, head throbbing). Examination of the face - expression, signs of gender, age. Pathological changes - puffy, feverish, face of "Corvizar", "lion's face", "Parkinson's mask", face of "wax doll", "Hippocrates face", sardonic laughter, asymmetry of muscle movements and faces. Examination of the eyes and eyelids, the shape of the nose, examination of the oral cavity, examination of the neck. Skin and visible mucous membranes. Pallor, shades of color, pigmentation, rashes, hemorrhages, scratching. Expansion of the veins. Skin turgor. Edema, localization, detection methods (“blister test”). Research methods lymph nodes, the value of their biopsy, lymphography. Muscles. The importance of dynamometry and myography. The skeletal system. Deformation. Joints, their mobility, “morning stiffness”. Examination of fingers and toes, their changes in pathological. processes. Characteristics of fevers, degree of temperature rise. Crisis, lysis. Hypothermia. Diagnostic temperature measurement value.

3.	**Palpation and percussion - as a research method. Palpation of the lymph nodes and thyroid gland. Definition of palpation and percussion - as a clinical method research. The history of the development of palpation and percussion, technique, methods, diagnostic value. Characteristics of percussion sound.** Patient supervision. Sequence of palpation of lymph nodes (by groups). Characteristics of the state of the lymph nodes are normal. Palpation of the thyroid gland. Russian researchers in Physical substantiation of percussion, sounds obtained with percussion. Comparative and topographic percussion. physical percussion. Basic rules of percussion.
4.	**Methods of examination of a patient with respiratory diseases: questioning, examination, palpation of the chest. Percussion of the lungs, comparative percussion.** Patient supervision. Collect the main complaints of the patient. Pain in the chest area (character, their localization, duration, intensity, irradiation, methods of relief). Shortness of breath (physiological, pathological; expiratory, inspiratory, mixed). Cough (dry, moist; duration, time of onset; volume, and tone). Sputum separation - the nature, quantity, presence or absence of odor, sputum discharge, depending on the position of the patient. Distinguish bleeding, nasal and pulmonary, their duration. The difference between hemoptysis from pulmonary, nasopharyngeal, esophageal, gastric bleeding. Diagnostic value. Violation of nasal breathing. Studies in the upper respiratory tract. Collect minor complaints: fever, weakness, loss of appetite. Forms of the chest and normal pathology. Respiration types (norm and pathology). Determination of chest pain, voice tremor and resistance. Changes in the percussion sound over the lungs in normal and pathological conditions.
5.	**Topographic percussion in a healthy person and in respiratory pathology.** **Auscultation - as a method of objective research. Auscultation rules and techniques. Auscultation of the lungs: basic breathing sounds (vesicular and bronchial).** Patient supervision. Topographic percussion in a healthy person and in pathology of the respiratory system. Determine the upper boundaries of the lungs or their heights (front and back) and their width (Kroenig fields). Determine the lower boundaries of the lung. Conditional topographic chest lines. Determination of the mobility of the lower edge of the lung. Changing the boundaries of the lung at various physiological. and pathological. states. The main respiratory noises (vesicular and bronchial), the mechanism of their occurrence, their change: strengthening and weakening (physiological and pathological) and their diagnostic value.
6.	**Auscultation of the lungs: side respiratory noises (dry and wet rales, crepitus and pleural friction noise). Diagnostic value. Bronchophonia. Functional and instrumental research methods for patients with respiratory diseases: spirometry, pneumotachometry, oxyhemotherapy. X-ray methods of lung examination, bronchoscopy, bronchography, tomography. Diagnostic value.** Patient supervision. Perform auscultation of the lungs. Wheezing, the mechanism of formation. Dry low-tone (bass), high-treble. Wet: voiced, not voiced, fine-, medium- and large-bubbly, localization and prevalence of wheezing. The effect of coughing and deep breathing on their appearance and disappearance. Diagnostic value. Bronchography. Bronchoscopy. Tomography. Spirometry, Spirography. The value of a functional study of the respiratory system in the diagnosis of insufficiency of the function of external respiration. Spirogram analysis. Pneumotachometry, oximetry, pneumotachography.
7.	**Laboratory exercise: examination of sputum and pleural fluid. Syndromes of impaired bronchial patency. Diagnosis of acute and chronic bronchitis. Reflux bronchitis. The negative effects of smoking on the respiratory system.** Patient supervision. Method of taking sputum for research (general sputum analysis, bacteriological culture, diagnostic value of sputum. Technique of pleural puncture. Diagnostic value of pleural punctate. Laboratory examination of sputum and pleural punctate. Difference between transudate and exudate. Examination, microscopy of native and stained preparations, bacterioscopy. Syndromes violations of bronchial patency Diagnosis of acute and chronic bronchitis.

8.	**Syndrome of increased airiness of the lung tissue. Examination of patients with obstructive pulmonary diseases, bronchial asthma and pulmonary emphysema. Reflux - bronchial asthma. Lung tissue hardening syndrome. Inflammatory lung diseases - (croupous and focal), pneumonia.** Supervision of patients with a syndrome of increased airiness of the lung tissue. Collection of complaints. Inspection. Palpation. Percussion. Auscultation. Symptomatology of bronchial asthma and pulmonary emphysema. Inflammatory diseases of the lungs (croupous and focal) pneumonia. Complaints of patients with pulmonary compaction syndrome. Inspection. Palpation. Percussion. Auscultation. Examination of patients with inflammatory lung diseases. Symptomatology of croupous and focal pneumonia.
9.	**Syndrome of accumulation of fluid and air in the pleural cavity. Survey** **patients with pleurisy (dry and exudative). Symptomatology of hydrothorax, pneumothorax. Syndrome of the cavity in the lung. Examination of patients with bronchiectasis, lung abscess. Patient supervision. Compilation of a medical history.** Examination of patients with hydrothorax, pneumothorax. Collection of complaints. Inspection. Palpation, gthreccbz Percussion. Auscultation. Symptomatology of hydrothorax and pneumothorax. Types of pneumothorax (open, closed and valve). Independent work of students with patients under the guidance of a teacher. Supervision of patients with cavity syndrome in the lung. Collection of complaints. Inspection. Palpation. Percussion. Auscultation. Symptomatology of bronchiectasis, lung abscess
10.	**Intermediate control No. 1 for the respiratory system. Survey methods** **patients with CVS diseases. Inquiry, inspection. Examination of the region of the heart and peripheral vessels. Palpation of the region of the heart.** Control of students' knowledge on the symptomatology of respiratory diseases. Intermediate control No. 1. OSCE. Patient supervision. Demand, general examination of patients with CVD diseases. Collecting basic complaints. Pain in the region of the heart, the mechanism of their occurrence. The nature of the pains, their localization, duration, intensity, irradiation, connection with excitement with physical activity, night pains, methods of relief. Shortness of breath, mechanism of occurrence, intensity. Cardiac asthma. Palpitations. Interruptions from excitement and other unpleasant sensations in the region of the heart. Cough, hemoptysis, nature, mechanism of occurrence, diagnostic. meaning. Inspection. Body type. Consciousness. The position of the patient. Skin color. The difference between pulmonary and cardiac cyanosis. Pasty. Edema, the mechanism of occurrence, their localization, identification, control over the dynamics. Diagnostic meaning. The difference between cardiac edema and renal edema.
11.	**Percussion of the heart. Determination of the boundaries of relative cardiac dullness in a healthy person and in pathology of the circulatory system. Determination of the boundaries of absolute cardiac dullness in a healthy person and in pathology of the respiratory and circulatory organs.** Heart configuration, analysis of radiographs. Diagnostic value. Patient supervision. The method of determining the projection of various parts of the heart on the anterior wall of the chest. cells and their relation to the percussion borders of the heart. Changing the boundaries of the heart. dullness with a change in body position and diseases of the respiratory system and CVS. Diagnostic meaning. to determine the configuration of the heart. Analysis of radiographs. Rules and technique of percussion of the heart. The dimensions of the abs-ty of the heart.
12.	**Auscultation of the heart: a characteristic of normal heart sounds in a healthy person. Places for listening to heart sounds. Basic properties of tones: strength, timbre. Weakening and strengthening of the fundamental sounds of the heart. Changes in heart sounds in CVS: "gallop rhythm", "quail rhythm", pendulum rhythm, embryocardia. Tachycardia, bradycardia, arrhythmia.** Patient supervision. Rules of auscultation of the heart. The projection of the valves on the anterior chest wall and the place of their auscultation. Method of auscultation of the heart. Auscultation of the heart in different phases of breathing, in different positions of the patient, at rest and in physical. load. The difference between systole and diastole of the heart during auscultation. The

	concept of heart tones (1,2,3,4), the mechanism of their occurrence. Basic properties of tones, their weakening and strengthening.
13.	**Auscultation of the heart. The mechanism of formation of heart murmurs, their classification.** **Characteristics of heart murmurs in cardiovascular pathology. PCG recording system. Normal PCG. The concept of echocardiography. Diagnostic value.** Patient supervision. Concept of the anatomy of the heart valves. Heart murmurs, mechanism of origin, classification. The difference between organic and functional noise. Systolic. and diastolic murmurs: protodiastolic, mesodiastolic., presystolic, total, diastolic. Character, timbre, duration of noise. The place of the best listening to heart sounds, their ways distribution. Pericardial friction murmur, pleuropericardial murmurs. Auscultation of arteries and veins. Double tone Traube, pathological, diastolic murmur of Vinogradov - Durozier. The concept of phonocardiography, its importance in the diagnosis of heart disease. The concept of polycardiographic research and its significance for judging the functional state of the heart. The main indicators of echocardiography.
14.	**Research of blood vessels. Characteristics of the pulse in a healthy person and in pathology of cardio-vascular system. ... The concept of hypertension and hypotension. A / D measurement methods. ECG decoding.** Patient supervision. Rules and methods of pulse research, its main characteristics (Latin terminology). Rules, methodology and technique for measuring blood pressure. Maximum, minimum, average pressure, "random" and main pressure. Pulse pressure. Oscillography. Sphygmography. Capillaroscopy. Def. the speed of the pulse wave. Phlebography. Venous pressure, method of determination. Blood flow velocity, measurement, diagnostic meaning. The amount is in the blood. Cardiac output and peripheral. resistance. Orthostatic test, breath hold test. ECG registration system. The concept of ECG, its diagnostic. meaning. Electrocardiograph. Main and additional leads. Rules, methodology and technique of ECG registration. Concept of vectorcardiography.
15.	**Normal ECG. The concept of teeth, intervals and segments on the ECG and the mechanism of their formation. ECG in violation of the function of automatism, excitability. Dysfunction of the heart: automatism, excitability, conduction, contractility.** Patient supervision. Concept of the electrical axis of the heart. Method for decoding normal ECG (rhythm, electrical axis, heart rate, calculation of teeth and intervals). Main clinics syndromes. Violation of the function of automatism of the sinus node: sinus bradycardia, tachycardia, arrhythmia. Extrasystoles: atrial, nodal, ventricular, right and left ventricular. Paroxysmal tachycardia. Atrial fibrillation. Flicker of the ventricles. The concept of cardiac defibrillation. Violation of conductivity. Atrial - ventricular block. Right and left bundle branch block. Diagnosis and clinical significance of conduction disorders.
16.	**Symptomatology of rheumatism and primary rheumatic heart disease. Etiology and pathogenesis of rheumatism. Examination of patients with rheumatism. Symptomatology of rheumatism and primary rheumatic heart disease. Symptomatology of mitral heart defects (mitral valve insufficiency and stenosis).** Supervision of patients with rheumatism. Symptomatology (complaints, examination, palpation, mitral stenosis, hemodynamics in mitral stenosis .. Changes in ECG, PCG and echocardiography in mitral heart disease.
17.	**Symptomatology of aortic heart defects (insufficiency and stenosis of the aortic mouth). Insufficiency of blood circulation (compensated and decompensated state). Vascular insufficiency.** Supervision of patients with acquired heart defects. Failure aortic valve, hemodynamics in case of its insufficiency. Symptomatology (complaints,

	examination, palpation, percussion, auscultation). Aortic valve stenosis, hemodynamics with aortic valve stenosis. Symptomatology. Changes in ECG, PCG, and echocardiography in aortic heart disease. Clinical manifestations (cardiac asthma, pulmonary edema), diagnosis, emergency treatment. Stages of chronic cardio). nie.
18.	**Symptomatology of hypertension. The concept of symptomatic hypertension (renal, endocrine, central, hemodynamic).** Supervision of patients with essential hypertension Symptomatology. Main complaints and changes in CVS during an objective examination. Laboratory and instrumental diagnostics of hypertensive. disease. The concept of a hypertensive crisis and emergency care for it. The main groups of symptomatic hypertension.

Names of lecture employment

№	**Names of lecture employment**	**hours**
1	History of development, tendency of a subject of propaedeutics of intrinsic illnesses. Medical deontologiya and bases of medical secret. Yatrogeniya. Concept about the diagnosis and semiotics. General plan of inspection of the patient. Problems of propaedeutic clinic.	2
2	Research of patients with disease of members дыхания:расспрос: complaints, general survey, palpation and perkussiya (comparative and topographical).Rules and technics of auskultatsiya of lungs. Respiratory noise: the basic and auxiliary. Functionally tool methods of research of patients with disease of a respiratory organs.	2
3	The basic clinical syndromes at diseases of a respiratory organs. Syndrome of bronchial obstruction. Simptomatologiya of a sharp and chronic bronchitis. A syndrome increase of lightness in a pulmonary fabric. Simptomatologiya of a bronchial asthma and zmfizema of lungs. Negative influence smoking on a respiratory organs. A reflux bronchitis, a reflux - a bronchial asthma.	2
4	Syndrome of inspissation of a pulmonary fabric. Simptomatologiya of ochagova and krupozny pneumonia. A syndrome of a clump of air or fluid in a pleural cavity and a syndrome of formation of a lumen in a lung. Simptomatologiya of a pleurisy (dry and ekssudativny), gidro-thorax, pneumothorax. Diagnostics of bronkhoektatichesky illness and abscess of lungs.	2
5	Research of patients with diseases of system of a circulation of blood. Inquiry survey palpation and perkussiya of heart.	2
6	Auskultatsiya of heart. Tints of heart in norm and a pathology. Noise of heart. Concept about FKG, an electrocardiogram and ЭХОКГ.	2
7	Simptomatologiya of rheumatism and primary revmokardita. Heart diseases (mitralnye and aortalnye). Sharp and chronic failure of a circulation of blood.	2
8	Diagnostics of hypertonic illness. IBS. Simptomatologiya of a stenocardia and heart attack of a myocardium. Knocking over of an attack of a stenocardia.	2

Names of lecture employment

Lesson 1

History of development, tendency of a subject of propaedeutics of intrinsic illnesses. Medical deontologiya and bases of medical secret. Yatrogeniya. Concept about the diagnosis and semiotics. General plan of inspection of the patient. Problems of propaedeutic clinic.

Short history of development of intrinsic medicine. Therapeutic schools of RUZ. Main objectives and problems of a course of propaedeutics of intrinsic illnesses. Medical deontologiya. Procedure of inspection of the patient. Value of inquiry, a congregating of the anamnesis of therapeutic patients in diagnostics of disease.General inspection of the patient. Anthropometry. Thermometry. Position, state, consciousness of the patient.

Definition of the constitutional phylum. Integuments and mucosas. Hypostases, localisation, methods of revealing, Limfouzly. Palpation and perkussiya of lungs.

Literature: 1.(basis)-1,2,3

2.(complement)- 1,2,4,12

Lesson 2

Research of patients with disease of members дыхания:расспрос: complaints, general survey, palpation and perkussiya (comparative and topographical).Rules and technics of auskultatsiya of lungs. Respiratory noise: the basic and auxiliary.Functionally tool methods of research of patients with disease of a respiratory organs.

Auskultatsiya as method of research of the patient. The concept about the basic and auxiliary respiratory noise, the mechanism are more their than originating. Rattles, the mechanism was more their than formation. Dry, low, high-voice-frequency. Wet: sonorous and not sonorous, localisation are more their. Crepitation. Noise of a friction of a pleura. Bronkhofoniya. Functionly - tool methods of research of patients

with disease of a respiratory organs.

Literature: 1.(basis)-1,2,3

2.(complement)- 1,2,3,4,8

Lesson 3

The basic clinical syndromes at diseases of a respiratory organs. Syndrome of bronchial obstruction. Simptomatologiya of a sharp and chronic bronchitis. A syndrome increase of lightness in a pulmonary fabric. Simptomatologiya of a bronchial asthma and zmfizema of lungs. Negative influence smoking ona respiratory organs. A reflux bronchitis, a reflux - a bronchial asthma.

Infringement of ventilation bronchial fabrics. Development of the respiratory. failures. Symptoms of a bronchitis, the mechanism was more their than development. Symptoms bronchial asthmas and emphysemas of lungs. Concept and phylums of ventilating infringements (restriction, obstruction, alveolyarno-capillaryblock). Concept about symptoms and syndromes of the cores the nozologicheskikh of forms of diseases ofa respiratory organs.

Literature: 1.(basis)-1,2,3

2.(complement)- 1,2,3,4,5,6

Lesson 4

Syndrome of inspissation of a pulmonary fabric. Simptomatologiya of ochagova and krupozny pneumonia. A syndrome of a clump of air or fluid in a pleural cavity and a syndrome of formation of a lumen in a lung. Simptomatologiya of a pleurisy (dry and ekssudativny), gidro-thorax, pneumothorax. Diagnostics of bronkhoektatichesky illness and abscess of lungs.

Infringement of ventilation of a pulmonary fabric. Development of respiratory failure. Symptoms of ochagova and a krupozny pneumonia, the mechanism was more their than development. Symptoms of a pleurisy (dry and ekssudativny), hydrothorax, pneumothorax. Concept and

phylums of ventilating infringements (restriction,obstruction, alveolyarno-capillary block). Diagnostics of bronkhoektatichesky illness and abscess of lungs.

Literature: 1.(basis)-1,2,3

2.(complement)- 1,2,3,4,5,6,8

Lesson 5

Research of patients with diseases of system of a circulation of blood. Inquiry survey palpation and perkussiya of heart.

Illnesses of system of a circulation of blood. The basic complaints also was more their a pathogeny. Pains in the field of heart, the mechanism of originating, character, intensity, localisation also was more their duration. Short wind, mechanism of originating. Warm asthma. Palpitation. Position of the patient. Colour of integuments, pastoznost. Hypostases, mechanism of originating. Асцит, inturgescence of veins. Arterial pulsing. Warm hump. Palpation of an apical and cardiac impulse. Symptom of "cat's purring", localisation. The procedure of delimitation carried. and absolute dullness of heart. Value of warm dullness in a pathology.

Literature: 1.(basis)-1,2,3

2.(complement)- 1,2,3,4,5,6

Lesson 6

Auskultatsiya of heart. Tints of heart in norm and a pathology. Noise of heart. Concept about FKG, an electrocardiogram and ЭХОКГ.

Procedure of auskultatsiya of heart, place of auscultation. Differences of a systole from a diastole, concept about tints of heart, the mechanism was more their than originating. The basic (1,2,3,4) and padding (tint of discovering of the mitralny valve, a rhythm of gallop, a rhythm had s). Basic properties of tints: rhythm, force, timbre, scission, dualization. Embriokardiya. Tachycardia, bradycardia, arrhythmias. Noise of heart, mechanism of originating. Classification of function noise. Sistolich. and diastolic noise. Noise of a friction of a pericardium of Plevrokardialny noise. Double tint of Trauabe. Pathological diastoliticheskу noise of Dyurazye.

Literature: 1.(basis)-1,2,3

2.(complement)- 1,2,4,6,8

Lesson 7

Simptomatologiya of rheumatism and primary revmokardita. Heart diseases (mitralnye and aortalnye). Sharp and chronic failure of a circulation of blood.

The general representations about an aetiology and a pathogeny of rheumatism. Simptomatologiya and diagnostics of the g heart diseases. Failure of the mitralny valve, stenosis of the left predserdno-zheludochkovy foramen, failure of valves of an aorta, stenosis of a mouth of an aorta. Failure of the three-folding valve. Sochetanny heart diseases.

Literature: 1.(basis)-1,2,3

2.(complement)- 1,2,4,5,6

Lesson 8

Diagnostics of hypertonic illness. IBS. Simptomatologiya of a stenocardia and heart attack of a myocardium. Knocking over of an attack of a stenocardia.

General idea about an aetiology and a pathogeny of hypertonic illness and simptomatology of a hypertension. Simptomatologiya and diagnostics of an ischemic heart trouble: stenocardia, heart attack of a myocardium. Value of an electrocardiogram and giperfermentemiya in diagnostics of a heart attack of a myocardium.

Literature: 1.(basis)-1,2,3
2.(complement)- 1,2,3,4,6,8

Names of a practical training

№	Names of a training	practical training	clinical training	Total
1	Problems of a subject of propaedeutics of intrinsic illnesses. Order of inspection of patients. Concept about medical deontologiya. Schema of the case record, methods of clinical inspection of the patient: inquiry, survey, palpation, perkussiya, auskultatsiya. Complaints of patients: the basic, secondary. History of the present disease. Anamnesis of life.	2	2	4
2	Self-contained inquiry of the patient. Self-contained work of students with the patient. Assembly of complaints, anamnesis of disease and life. General survey of the patient (general state of the patient, сознание, polo-zheniye, body build). Rules of the general survey. General inspection of the patient. Survey in parts bodies: head, person, neck, extremities, integuments. Fever. Temperature curves. Anthropometry. Anthropometric formulas. Value of anthropometry in diagnostics of diseases. Index to Ketla.	2	2	4
3	Palpation and perkussiya – as a method of research. Palpation of lymph nodes and thyroid gland. Definition of a palpation and perkussiya – as clinical method of research. History of development of a palpation and perkussiya, technician, methods, diagnostic value. Characteristic of a perkutorny note.	2	2	4
4	Methods of inspection of the patient with diseases of a respiratory organs: inquiry, survey, palpation of a thorax. Perkussiya of lungs, comparative perkussiya.	2	2	4
5	Topographical perkussiya at the able-bodied person and at a pathology of a respiratory organs. Auskultatsiya – as a method of objective research. Rules and technics of auskultatsiya. Auskultatsiya of lungs: basic respiratory noise (vesicular and bronchial).	2	2	4
6	Auskultatsiya of lungs: auxiliary respiratory noise (dry and wet rattles, crepitation and noise of a friction of a pleura). Diagnostic value. Bronkhofoniya. Functionly - tool methods of research of patients with diseases of a respiratory organs: spirometry, pneumotachometry, oksigemoterapiya. Radiological methods of research of lungs, bronkhoskopiya, bronkhografiya, tomography. Diagnostic value.	2	2	4
7	Laboratory research: research of mokrota and pleural fluid. Syndromes of infringement of bronchial passableness. Diagnostics	2	2	4

	of a sharp and chronic bronchitis. A reflux - a bronchitis. Negative influence of smoking on a respiratory organs.			
8	Syndrome of increase of lightness of a pulmonary fabric. Inspection of patients with obstructive diseases of lungs, a bronchial asthma and an emphysema of lungs. A reflux – a bronchial asthma. Syndrome of inspissation of a pulmonary fabric. Inflammatory diseases of lungs - (krupozny and ochagovy), a pneumonia.	2	2	4
9	Syndrome of a clump of fluid and air in a pleural cavity. Inspection of patients with a pleurisy (dry and ekssudativny). Simptomatologiya of a hydrothorax, pnev-motoraksa. A syndrome of a lumen in a lung. Inspection of patients with bronkhoektatichesky illness, an abscess of lungs. Kuratsiya of patients. Drawing up of the case record.	2	2	4
10	Mediate control №1 on systemsof members of respiration. Methods of inspection of patients with diseases of CCC. Inquiry, survey. Survey of area of heart and peripheric pots. Palpation of area of heart.	2	2	4
11	Perkussiya of heart. Delimitation of relative warm dullness at the able-bodied person and at a pathology of members of a circulation of blood. Delimitation of absolute warm dullness at the able-bodied person and at a pathology of a respiratory organs and circulations of blood. Configuration of heart, analysis of roentgenograms. Diagnostic value.	2	2	4
12	Auskultatsiya of heart: the characteristic of normal tints of heart at the able-bodied person. Places of auscultation of tints of heart. Basic properties of tints: force, timbre. Weakening and intensifying of the basic tints of heart. Change of tints of heart at CCC: «a rhythm of gallop», «a rhythm had s», a mayatnikoobrazny rhythm, embriokardy. Tachycardia, bradycardia, arrhythmia.	2	2	4
13	Auskultatsiya of heart. The mechanism of formation of warm noise, are more their classification. The characteristic of warm noise at a cardiovascular pathology. System of record of FKG. Normal FKG. Concept about ЭХОКГ. Diagnostic value.	2	2	4
14	Research of pots. The characteristic of pulse at the able-bodied person and at a pathology of cardiovascular system. Concept about a hypertension and a hypotonia. Methods of measurement А/Д. Decoding of an electrocardiogram.	2	2	4
15	Normal electrocardiogram. The concept about a teeth, intervals and segments on an electrocardiogram and the mechanism are more their than formation. An electrocardiogram at infringement of function of automatism, excitability. Infringement of functions of	3	3	6

	heart: automatism, excitability, admittance, sokratimost.			
16	Simptomatologiya of rheumatism and primary revmokardita. Aetiology and pathogeny of rheumatism. Inspection of patients with rheumatism. Simptomatologiya of rheumatism and primary revmokardita. Simptomatologiya mitralnykh of heart diseases (failure of the mitralny valve and stenosis).	3	3	6
17	Simptomatologiya aortalnykh of heart diseases (failure and stenosis of a mouth of an aorta). Failure of a circulation of blood (the compensat and dekompensirovanny state). Vascular failure.	3	3	6
18	Simptomatologiya of hypertonic illness. Concept about symptomatic hypertensia (renal, endokrinny, central, haemodynamic).	3	3	6

Names of a practical training

Lesson 1

Problems of a subject of propaedeutics of intrinsic illnesses. Order of inspection of patients. Concept about medical deontologiya. Schema of the case record, methods of clinical inspection of the patient: inquiry, survey, palpation, perkussiya, auskultatsiya. Complaints of patients: the basic, secondary. History of the present disease. Anamnesis of life.

Introduction in clinic. Acquaintance with chair of propaedeutics of intrinsic illnesses and requirements show to students on chair. Concept – intrinsic illnesses. Procedure of research of the patient (inquiry, survey, perkussiya, palpation, auskultatsiya), cores clinical and laboratory researches. The science about mutual relations of the doctor and the patient, about a debt and duties of the doctor, are called as a medical deontologiya. Schema of the case record, methods klinich. inspections. Complaints of the patient: the basic, secondary. Value of the case record as scientifically - the medical legal document. Contribution of domestic therapists to working out of the schema of the case record (Ar-Rozy). Anamnesis of life. History of life and labour activity. General inspection of the patient (state, сознание, position, body build). Physical methods of research. Inspection of patients on systems. Pre-award diagnosis. Laboratory - tool methods issle- a giving.

Clinical diagnosis.

Интерактив ny method:Cerebral storm, round on Gallery, a method of snowballs

Literature: 1.(basis)-1,2,3

2.(complement)- 14,15

Lesson 2

Self-contained inquiry of the patient. Self-contained work of students with the patient. Assembly of complaints, anamnesis of disease and life. General survey of the patient (general state of the patient,

сознание, polo-zheniye, body build). Rules of the general survey. General inspection of the patient.
Survey in parts bodies: head, person, neck, extremities, integuments. Fever. Temperature curves.
Anthropometry. Anthropometric formulas. Value of anthropometry in diagnostics of diseases.
Index to Ketla.
Assembly of complaints and anamnesis of disease and life. General inspection of the patient. The state of
consciousness, kinds are more its than infringement (clear, a stupor, sopor, a coma). Position of the patient
(awake, passive, forc). Features of a body build. Concept about the constitutional phylum (normostenichesky,
asthenic, hypersthenic).Change of the form and size of a head (Mikrotsefaly, main dropsy, pulsing of
a head). Survey of the person – expression, signs of a sex, age. Patologich. changes – bloated, feverish, the
person of "Korvizara", “the lion's person”, “Parkinson's mask”, the person of “a wax doll”, "Hippocratic
face", sardonic laughter, assimetry of locomotions of muscles and the person. Survey of eyes and eyelids,
forms of a nose, survey of an oral cavity, survey of a neck. Skin and visible mucosas. Pallor, shades of
colouring, pigmentation, pimples, gemorragiya, raschesa. Dilating of veins. Turgor of a skin. Hypostases,
localisation, methods of revealing (“voldyrny hallmark”). Methods of research limfouzlov, value was more
their than a biopsy, limfografiya. Muscles. Value of dinamometriya and miografiya. Osteal system.
Deformation. Joints, was more their motility, “morning constraint”. Survey of dactyls of hands and
feet, are more their than change at patologich. processes. Characteristic of fevers, degrees of rise in
temperature. Crisis, lizis. Gipotermiya. Diagnostich. value of measurement of distempers-ry.
Интерактив ny method: Cerebral storm, method of rotation, circle. table
Literature: 1.(basis)-1,2,3
2.(complement)- 14,15
Lesson 3
Palpation and perkussiya – as a method of research. Palpation of lymph nodes and thyroid gland.
Definition of a palpation and perkussiya – as clinical method of research. History of development
of a palpation and perkussiya, technician, methods, diagnostic value. Characteristic of a perkutorny
note.
Sequence of a palpation of lymph nodes (on bunches of lymph nodes). The characteristic of a state of
lymph nodes in norm. Palpation of a thyroid gland. The role of Auenbruggera in working out of a method
of perkussiya, introduction are more its in practice by Korvizarom. Value of works of domestic explorers in
development of this method. A physical substantiation of perkussiya, the notes receiv at perkussiya.
Comparative and topographical perkussiya. Ground rules of perkussiya.

Интерактив ny method: 3rd stupen. interview, cerebral storm, beer plenty

Literature: 1.(basis)-1,2,3

2.(complement)- 14,15

Lesson 4

Methods of inspection of the patient with diseases of a respiratory organs: inquiry, survey, palpation of a thorax. Perkussiya of lungs, comparative perkussiya.

The basic complaints also was more their a pathogeny. Pains in the field of a breast (character, are more their
localisation, duration, intensity, irradiatsiya, means of knocking over). Short wind (physiological, pathological; ekspiratorny, inspiratorny, admix). Cough (dry, wet; duration, time of originating; loudness,
and timbre). Branch of mokrota – character, quantity, presence or absence of an odour, otkhozhdeny
mokrota depending on position of the patient. Bleedings, nasal and pulmonary, was more their duration.
Difference of a krovokharkanye from a pulmonary, nosoglotochny, pishchevodny, stomachal bleeding. Diagnostic zna-cheniye. Infringement of nasal respiration. Researches in top dykhat.putey.
Vtoropowermode complaints: fever, delicacy, decrease in appetite. Forms of a thorax in norm and a pathology. Phylums of respiration (norm and pathology). Definition of morbidity, vocal trembling and
resistance of a thorax. Change of a perkutorny note over lungs in norm and at a pathology.

Интерактив ny method: Akademicheskaya we weeded., it are weak. part method

Literature: 1.(basis)-1,2,3

2.(complement)- 14,15

Lesson 5

Topographical perkussiya at the able-bodied person and at a pathology of a respiratory organs.

Auskultatsiya – as a method of objective research. Rules and technics of auskultatsiya.

Auskultatsiya of lungs: basic respiratory noise (vesicular and bronchial).

Topographical perkussiya at the able-bodied person and at a pathology of a respiratory organs. Definition
of high bounds of lungs or are more their than height (in front and behind) and the width (a field of Kreniga)
are more their. Definition of the inferior borders of a lung. Conditional topografich. lines of a thorax.
Definition of motility of bottom edge of a lung. Change of borders of a lung at various fiziologich. and patologich. states. The basic respiratory noise (vesicular and bronchial), the mechanism was more
their occurrence, was more their change: intensifying and weakening (physiological and pathological) also
are more their diagnostic value.

Интерактив ny method: 3rd stupen. interview, round table, method of snowballs

Literature: 1.(basis)-1,2,3

2.(complement)- 14,15

Lesson 6

Auskultatsiya of lungs: auxiliary respiratory noise (dry and wet rattles, crepitation and noise of a
friction of a pleura). Diagnostic value. Bronkhofoniya. Functionly - tool methods of research of patients with diseases of a respiratory organs: spirometry, pneumotachometry, oksigemoterapiya. Radiological methods of research of lungs, bronkhoskopiya, bronkhografiya,
tomography. Diagnostic value

Auskultatsiya of lungs. Rattles, mechanism of formation. Dry-low tint (bass), high tint-diskantovye.
Wet: sonorous, not sonorous, it are shallow - sredne-and krupnopuzyrchatye, localisation and prevalence of rattles. Influence of an expectoration and penetrating respiration on them appearance and petering. Diagnostic value. Bronkhografiya. Bronkhoskopiya. Tomography. Spirometry, Spirografiya.
Value of function research of a respiratory organs in diagnostics of failure of function of an external
respiration. Analysis of spirogramma. Pneumotachometry, oksigemometriya, pnevmotakhografiya.

Интерактив ny method: Weak part, beer plenty, method of rotation

Literature: 1.(basis)-1,2,3

2.(complement)- 14,15

Lesson 7

Laboratory research: research of mokrota and pleural fluid. Syndromes of infringement of bronchial passableness. Diagnostics of a sharp and chronic bronchitis. A reflux - a bronchitis. Negative influence of smoking on a respiratory organs.

Procedure of a capture of mokrota on research (bulk analysis of mokrota, bak.posev, diagnostic value of
mokrota. Technics of a puncture of a pleura. Diagnostic value of punktat of a pleura. Laboratory research
of mokrota and pleural punktat, Difference of a transudate from ekssudat. Survey, microscopy nativnykh and stained preparations, bacterioscopy. Syndromes of infringement of bronchial passableness.
Diagnostics of a sharp and chronic bronchitis. Negative influence of smoking on a respiratory organs.

Интерактив ny method: Akademicheskaya we weeded. the handle on the middle of a table

Literature: 1.(basis)-1,2,3

2.(complement)- 14,15

Lesson 8

Syndrome of increase of lightness of a pulmonary fabric. Inspection of patients with obstructive diseases of lungs, a bronchial asthma and an emphysema of lungs. A reflux – a bronchial asthma. Syndrome of inspissation of a pulmonary fabric. Inflammatory diseases of lungs - (krupozny and ochagovy), a pneumonia.

Pathogeny of development of a syndrome of increase of lightness of a pulmonary fabric. Complaints.
Survey. Palpation. Perkussiya. Auskultatsiya. Simptomatologiya of a bronchial asthma and emphysema of
lungs. Inflammatory diseases of lungs (krupozny and ochagovy) pneumonia. Pathogeny of development of
a syndrome of inspissation of a pulmonary fabric. Complaints. Survey. Palpation. Perkussiya.
Auskultatsiya. Inspection of patients with inflammatory diseases of lungs. Simptomatologiya of a krupozny
and ochagovy pneumonia.

Интерактив ny method:Groupe strainstracee, 3rd are step. interview, method снеж.

Literature: 1.(basis)-1,2,3

2.(complement)- 14,15

Lesson 9

Syndrome of a clump of fluid and air in a pleural cavity. Inspection of patients with a pleurisy (dry and ekssudativny). Simptomatologiya of a hydrothorax, pnev-motoraksa. A syndrome of a lumen in a lung.

Inspection of patients with bronkhoektatichesky illness, an abscess of lungs. Kuratsiya of patients.

Drawing up of the case record.

Hydrothorax, pneumothorax. A pathogeny of development of a syndrome of a clump of fluid and air in a

pleural cavity. Complaints. Survey. Palpation. Perkussiya. Auskultatsiya. Simptomatologiya of a pleurisy:

dry and ekssudativny. Simptomatologiya of a hydrothorax and pneumothorax. Kinds of a pneumothorax

(open, occlud and valving). Self-contained work of students with patients under the direction of the teacher.

A pathogeny of development of a syndrome of a lumen in a lung. Complaints. Survey. Palpation. Perkussiya.

Auskultatsiya. Simptomatologiya of bronkhoektatichesky illness, abscess of lungs.

Интерактив ny method: Method of incident, round on Gallery, akademicheskaya we weeded.

Literature: 1.(basis)-1,2,3

2.(complement)- 14,15

Lesson 10

Mediate control №1 on systemsof members of respiration. Methods of inspection of patients with

diseases of CCC. Inquiry, survey. Survey of area of heart and peripheric pots. Palpation of area of

heart.

Control of knowledge of students on simptomatologiya of diseases of a respiratory organs. Mediate control

№1. OSCE.

Inquiry, the general survey of patients with diseases of CCC. The basic complaints also was more their a

pathogeny. Pains in the field of heart, the mechanism was more their than originating. Character of pains, are more their localisation, duration, intensity, irradiatsiya, communication with excitement by an

exercise stress, night pains, means of knocking over. Short wind, mechanism of originating, intensity.

Warm asthma. Palpitation. Faults for excitement, etc. unpleasant sensations in the field of heart.

Cough, krovokharkanye, character, mechanism of originating, diagnostich. value. Survey. Body build.

Consciousness. Position of the patient. Colour of integuments. Difference pulmonary from warm

tsianoz. Pastoznost. Hypostases, the mechanism of originating, was more their localisation, revealing,

control over dynamics. Diagnostich. value. Difference of warm hypostases from the renal.

Интерактив ny method: the handle on se-red.stol, 3rd are step. interview

Literature: 1.(basis)-1,2,3

2.(complement)- 14,15

Lesson 11

Perkussiya of heart. Delimitation of relative warm dullness at the able-bodied person and at a pathology of members of a circulation of blood. Delimitation of absolute warm dullness at the able-bodied person and at a pathology of a respiratory organs and circulations of blood. Configuration of heart, analysis of roentgenograms. Diagnostic value.

Procedure of definition of a projection of various departments of heart on the forward wall of heaps. cages also was more their the attitude to perkutorny borders of heart. Change of borders serd. dullness at a postural change of a body and diseases of a respiratory organs and CCC. Diagnostich. value. Configuration of heart. Analysis of roentgenograms. Rules and technics of perkussiya of heart. Dimensions of absolute dullness of heart.

Интерактив ny method: method снеж.,method of rotation, akademichesky polemic

Literature: 1.(basis)-1,2,3

2.(complement)- 14,15

Lesson 12

Auskultatsiya of heart: the characteristic of normal tints of heart at the able-bodied person. Places of auscultation of tints of heart. Basic properties of tints: force, timbre. Weakening and intensifying of the basic tints of heart. Change of tints of heart at CCC: «a rhythm of gallop», «a rhythm had s», a mayatnikoobrazny rhythm, embriokardy. Tachycardia, bradycardia, arrhythmia.

Rules of auskultatsiya of heart. The projection of valves to the forward wall of a thorax and a place are more their than auscultation. Procedure of auskultatsiya of heart. Auskultatsiya of heart in various phases of respiration, at various positions of the patient, in rest and at fizich. to a load. Difference of a systole from a diastole of heart at auskultatsiya. The concept about tints of heart (1,2,3,4), the mechanism are more their than originating. The basic properties of tints, was more their weakening and intensifying.

Интерактив ny method: round table, method of resolution of problems, round on Gallery

Literature: 1.(basis)-1,2,3

2.(complement)- 14,15

Lesson 13

Auskultatsiya of heart. The mechanism of formation of warm noise, are more their classification. The characteristic of warm noise at a cardiovascular pathology. System of record of FKG. Normal FKG. Concept about ЭХОКГ. Diagnostic value.

Concept about anatomy of valves of heart. Noise of heart, mechanism of originating, classification. Difference of organic noise from the function. Sistolich. and diastolic noise: protodiastolic, mezodiastolich., presistolichesky, total, diastolic. Character, timbre, duration of noise. The place of the best auscultation of noise of heart, a path are more their than diffusion. Noise of a friction of a pericardium, plevroperikardialny noise. Auskultatsiya of arteries and veins. Double tint of Traube, pathological, diastolic noise of Vinogradova – Dyurozye. The concept about a cardiophonography, are more its value in diagnostics of diseases of heart. The concept about polikardiograficheskу research also are more its value for judgement about a function state of heart. Basic indexes ЭХОКГ.

Интерактив ny method: Weak part, beer plenty, cerebral storm

Literature: 1.(basis)-1,2,3

2.(complement)- 14,15

Lesson 14

Research of pots. The characteristic of pulse at the able-bodied person and at a pathology of cardiovascular system. Concept about a hypertension and a hypotonia. Methods of measurement А/Д. Decoding of an electrocardiogram.

Rules and a procedure of research of pulse, was more its the basic characteristics (Latin terminology). Rules, procedure and technics of measurement HELL. Maksim oye, minim-y, middle pressure, "casual" and base measuring pressure. Pulse pressure. Oscillography. Sfigmografiya. Capillaroscopy. Opred. speeds of pulse wave. Phlebography. Venous pressure, procedure of definition. Speed of a blood-groove, measurement, diagnostich. value. Kol – in circulat blood. Warm exhaust and periferich. resistance. Ortostatichesky hallmark, hallmark with a delay of respiration. System of registration of an electrocardiogram. The concept about an electrocardiogram, are more its diagnostich. value. Electrocardiograph. Basic and padding abductions. Rules, procedure and technics of registration of an electrocardiogram. Concept about vektorkardiografiya.

Интерактив ny method: Akademicheskaya полемика, met.ratatsy, Klaster

Literature: 1.(basis)-1,2,3

2.(complement)- 14,15

Lesson 15

Normal electrocardiogram. The concept about a teeth, intervals and segments on an electrocardiogram and the mechanism are more their than formation. An electrocardiogram

at infringement of function of automatism, excitability. Infringement of functions of heart: automatism, excitability, admittance, sokratimost.

Concept about an electrical axis of heart. Procedure of decoding of a normal electrocardiogram (rhythm, elektrich. axis, ChSS, calculation of a teeth and intervals). Cores klinich. syndromes. Infringement of function of automatism of sinusovy knot: sinusovy bradycardia, tachycardia, arrhythmia. Extrasystoles: atrial, nodal, zheludochkovy, the right - and levozheludochkovy. Paroksizmalny tachycardia. Vibrating arrhythmia. Blinking of ventricles. Concept about defibrillyatsiya of heart. Infringement of admittance. Predserdno – zheludochkovy blockage. Blockage of the right and left legs of a ventriculonector. Diagnostics and clinical value of infringement of admittance.

Интерактив ny method: 3rd it are step. interview, cerebral storm, Gallery

Literature: 1.(basis)-1,2,3

2.(complement)- 14,15

Lesson 16

Simptomatologiya of rheumatism and primary revmokardita. Aetiology and pathogeny of rheumatism. Inspection of patients with rheumatism. Simptomatologiya of rheumatism and primary revmokardita. Simptomatologiya mitralnykh of heart diseases (failure of the mitralny valve and stenosis).

The general representations about an aetiology and a pathogeny of rheumatism. Heart diseases. General idea about congenital heart diseases. The general representations about an aetiology and a pathogeny of the g heart diseases. Failure of the mitralny valve, a hemodynamics at failure of the mitralny valve. Simptomatologiya (complaints, survey, palpation, perkussiya, auskultatsiya). A stenosis of the mitralny valve, a hemodynamics at a stenosis of the mitralny valve. Simptomatologiya (complaints, survey, palpation, perkussiya, auskultatsiya). Sochetanny heart diseases. Change of an electrocardiogram, FKG and ЭХОКГ at the mitralnykh heart diseases.

Интерактив ny method: the handle on se-red.stol, a method снеж.,akademicheskaya полемика

Literature: 1.(basis)-1,2,3

2.(complement)- 14,15

Lesson 17

Simptomatologiya aortalnykh of heart diseases (failure and stenosis of a mouth of an aorta). Failure of a circulation of blood (the compensat and dekompensirovanny state). Vascular failure.

The general representations about an aetiology and a pathogeny of the g heart diseases. Failure of the aortalny valve, a hemodynamics at it failure. Simptomatologiya (complaints, survey, palpation, perkussiya, auskultatsiya). A stenosis of the aortalny valve, a hemodynamics at a stenosis of the aortalny valve. Simptomatologiya. Change of an electrocardiogram, FKG, and ЭХОКГ at the aortalnykh heart diseases. Concept about failure of a circulation of blood. Mechanism of development serd. failures. Syndromes sharp and hronich. failures. Levozheludochkovy nedost-t. Clinical exhibitings (warm asthma, hypostasis of a lung), diagnostics, urgent treatment. Stages of chronic warm nedost-ti (the compensat
and dekompensirovanny state). Mechanisms of indemnification of failure of heart.

Интерактив ny method: 3rd it are step. interview, method of incident

Literature: 1.(basis)-1,2,3

2.(complement)- 14,15

Lesson 18

Simptomatologiya of hypertonic illness. Concept about symptomatic hypertensia (renal, endokrinny, central, haemodynamic).

Concept about hypertonic illness. The general concepts about ztiologiya and a pathogeny gipertonich. illnesses. Risk factors. Members of a target. Simptomatologiya. The basic complaints and change of CCC at objective survey. Laboratory - tool diagnostics gipertonich. illnesses. Concept about a hypertonic crisis and first aid at it. Basic groups of symptomatic hypertensia.

Интерактив ny method: Weak part, method of incident, akadem. polemic

Literature: 1.(basis)-1,2,3
2.(complement)- 14,15

Clinical training

1	Tasks of the subject of propedeutics of internal diseases. The procedure of examination of patients. The concept about medical deontology. Scheme of medical history, methods of clinical evaluation patient: questioning, inspection, palpation, percussion, auscultation. Complaints of patients: the basic secondary. The history of the present illness. The history of life. Examination of the patients research Methodology the patient (questioning, inspection, percussion, Palace, auscultation), basic pace, auscultation, basic clinical and laboratory tests. She mailed theory of disease, methods of theory of disease Methods clinical examination :Patient's complaints: major, minor. The value of history as a scientific and medical legal document. The history of life. The story of the life and work. Total examination of the patient (as, consciousness, position, figure). Physical methods research. Examination of patients in the system. The preliminary diagnosis. Laboratory instrumental methods of research . Clinicaldiagnosis.
2	**Self-questioning of the patient. Independent work of students with patients. Collection complaints, anamnesis of disease and life. General inspection of the patient (General condition the patient, consciousness, position, figure). The rules of the common examination. A General survey patient. Inspection by body parts: head, face, neck, limbs, skin. Fever. The temperature curves. Anthropometry. Anthropometric formulas. The value of anthropometry in the diagnosis of diseases. The Quetelet Index. Examination of the patients** Collection of complaints and anamnesis of disease and life. A General examination of the patient. State of consciousness, the types of violations (clear, stupor, SOPOR, coma). The position of the patient (active, passive, constructive dismissal). Features of the physique. The concept of constitutional type (normosthenic, asthenic, hypersthenic). Change the shape and size of the head (microcephaly, head edema, throbbing head). Inspection of the face – expression, gender, age. Pathologic. changes – puffy, feverish face of the " Corvisart", " lion face," " the mask of Parkinson's", face " wax doll", " Hippocratic face ", sardonic laughter, asymmetrical movements of the muscles and person. Inspection of the eye and eyelids, shape of nose, inspection of the mouth inspection of the neck. Skin and visible mucous membranes shell. Pale, shades of color, pigmentation, rashes, hemorrhage, scratching. The varicose veins. The skin turgor. Swelling, localization, identification methods (" volturna test"). Research methods lymph nodes the value of their biopsy, lymphography. Muscles. The value of dynamometry and myography. The skeletal system. Deformation. Joints, and their mobility, " morning stiffness". Inspection of the fingers hands and feet, it changes when pathologic. processes. Feature fevers, the degree of increase temperature. Crisis, lysis. Hypothermia. Diagnostic. the importance of measuring temperature.
3	**3. Palpation and percussion as a method of research. Palpation of lymph nodes and of the thyroid gland. The definition of palpation and percussion – as a clinical method research. The history of development of palpation and percussion techniques, methods, diagnostic value. Characteristics of percussion sounds.**

	Examination of the patients .The sequence of palpation of lymphatic nodes (by groups). Characteristics of the condition of the lymph nodes was normal. Palpation of the thyroid gland. domestic researchers in the Physical basis of the percussion sounds obtained by percussion. Comparative and topographic percussion. specific percussion .Main rules of percussion.
4	**4. Methods of examination of patient with respiratory diseases: questioning, inspection, palpation of the chest.Percussion of the lungs comparative percussion** .Examination of the patients.To collect the main complaints of the patient . Pain in the chest area (in nature, their localization, the duration, intensity, irradiation, methods of relief). Shortness of breath (physiological, pathological; expiratory, inspiratory, mixed). Cough (dry, wet; duration, time of occurrence; volume and timbre). Sputum – the character, quantity, presence or absence of odor, expectoration of sputum, depending on position of the patient .To differ bleeding , nasal and pulmonary, and their duration. The difference Chiyo hemoptysis from pulmonary, nasopharyngeal, esophageal, stomach bleeding. Diagnostic value. Violation of nasal breathing. Research in the upper breath ways. Collect minor complaints: fever, weakness, loss of appetite. Shape of chest-normal key pathology. Types of breathing (norm and pathology). The definition of pain, voice shake and resistance of the chest. The change of percussion sound over the lungs in health and pathology.
5	5. **Topographic percussion of a healthy person and disease of the respiratory system. Auscultation – as a method of objective research. Rules and technique of auscultation. Auscultation of lungs: main respiratory sounds (vesicular and bronchial).** Examination of the patients. Topographic percussion of a healthy person and disease of the respiratory system. Define the upper border of the lungs or their height (front and rear) and width (field of Kreniga). To determine the lower border of the lung. Conditional topographic. the line of the chest. Definition of mobility the lower edge of the lung. Change of borders of the lung at different Russian. and pathologic. States. The main respiratory sounds (vesicular and bronchial), their mechanism of occurrence, their change: strengthening and weakening (physiological and pathological) and their diagnostic value.
6	6. **Auscultation of the lung: adverse respiratory sounds (dry and moist rales, crepitation and noise of friction of pleura). Diagnostic value. Bronhofoniya. Functionalinstrumental methods of examination of patients with diseases of the respiratory system: spirometry, pneumotachometry, oxigenoterapia. Radiographic lung, bronchoscopy, bronchography, tomography. Diagnostic value**. Examination of the patients. To perform auscultation of the lungs. Wheezing, the mechanism of formation. Dry-low tones (bass), high tone-treble. Wet: sonorous, resonant, small, medium and krupnorazmernye, localization and the prevalence of wheezing. The influence of the expectoration and deep breathing on their appearance and disappearance. Diagnostic value. Bronchography. Bronchoscopy. Imaging. Spirometry, Spirography. The value of functional research of respiratory system of the diagnosis of insufficiency of external respiration function. Analysis of spirogram. pneumotachometry, oxygamerya, pneumotachography.

7	7. **Lab: examination of sputum and pleural fluid. Syndromes destruction of bronchial obstruction. Diagnosis of acute and chronic bronchitis. Ref-Deluxe bronchitis. Negative effects of Smoking on the respiratory system.** Examination of the patients. The method of taking sputum examination (General analysis of sputum, buck. Sowing ,diagnostic the value of sputum. Technique of puncture of the pleura. Diagnostic value of pleural punctate. Laboratory examination of sputum and pleural punctate, the Difference between transudate from exudate. Examination microscopy of native and stained preparations, bacterioscopy. Syndromes violations bronchial patency. Diagnosis of acute and chronic bronchitis
8	8. **The syndrome of increasing the airiness of the lung tissue. Examination of patients with obstructive----governmental infectious diseases of the lungs, bronchial asthma and emphysema. Reflux bronchial Alina asthma. Syndrome seal lung tissue. Inflammatory diseases of the lung(lobar and focal), pneumonia.** Examination of the patients with the syndrome of increasing the airiness of the lung tissue. The collection of complaints. Inspection. Palpation. Percussion. Auscultation. The symptomology of asthma and emphysema. Inflammatory diseases of the lungs (lobar and lobular) pneumonia. Complaints of patients with syndrome seal lung tissue. Inspection. Palpation. Percussion. Auscultation. Examination of patients with inflammatory lung diseases. Symptomatology of lobar and focal pneumonia.
9	**9. The syndrome of accumulation of fluid and air in the pleural cavity. Examination patients with pleurisy (dry and exudative). The symptomology of hydrothorax, pneumothorax . Syndrome of cavity in the lung. Examination of patients with bronchiectasis disease, abscess lungs. Examination of the patients. The medical history of the disease.** Examination of patients with hydrothorax, pneumothorax.The collection of complaints. Inspection. Palpation. Percussion. Auscultation. The symptomology of hydrothorax and pneumothorax. Types pneumothorax (open, closed and valve). Independent work of students with patients under the guidance of a teacher. Examination of the patients with the syndrome of cavity in the lung .The collection of complaints. Inspection. Palpation. Percussion. Auscultation. Symptomatology of bronchiectasis, lung abscissic
10	**10. Intermediate control №1 on the respiratory system. Methods of examination patients with diseases of the SSS. Inquiry, inspection. Examination of the heart and peripheral vessels. Palpation of the heart.** Control of students ' knowledge of the symptomatology of diseases of the respiratory system. Intermediate control No. 1. OSCE. Examination of the patients. Inquiry, General inspection of patients with diseases of the SSS. The collecting main complaints. Pain in the heart, the mechanism of their formation. The nature of pain, its localization, duration, intensity, irradiation, the communication with the excitement of physical activity, night pain, methods of relief. Shortness of breath, mechanism occurrence, intensity. Cardiac asthma. Heartbeat. The disruption and excitement. unpleasant sensations in the heart area. Cough, hemoptysis, character, mechanism appearance, diagnostic. value. Inspection. Figure. Consciousness. The

	position of the patient. The color of the skin. Distinction of pulmonary from cardiac cyanosis. The pasty. Swelling, mechanism appearance, their localization, identification, and control of dynamics. Diagnostic. value. Unlike cardiac edema from kidney
11	**11. Percussion of the heart. Determination of borders of relative heart dullness in healthy person and pathology of the circulatory system. Defining the borders of the absolute cardiac dullness in a healthy person and disease of the respiratory system and blood circulation. Configuration heart, analysis of radiographs. Diagnostic value.** Examination of the patients. The method of determining the projection of different parts of the heart on the front wall of the piles. cells and their attitude to percussion borders of the heart. The change of borders of the heart. stupidity at the change the position of the body and diseases of the respiratory system and CCC. Diagnostic. Value .To determine the con-FIGURATIO heart. Analysis of radiographs. Rules and technique of percussion of the heart. Sizes of heart.
12	**12. Auscultation of the heart: characteristic normal heart tones in a healthy person. Places listening to the heart tones. Basic properties of tones: strength, tone. The weakening and reinforcement of the main tones of the heart. Change of heart tones at CCC: "gallop rhythm", "rhythm quail", a pendulum rhythm, imbricate. Tachycardia, bradycardia , arrhythmia.** Examination of the patients. Rules of auscultation of the heart. Projection of the valves on the anterior chest wall and place they are listening to. Technique auscultation of the heart. Auscultation of the heart in different phases breathing at different positions of the patient at rest and during physical. load. The difference systole from diastole of the heart auscultation. The concept of the heart tones (1,2,3,4), the mechanism of their occurrence. Basic properties of tones, their weakening and strengthening.
13	13. Auscultation of the heart. The mechanism of formation of a heart murmur, their classification. Characteristics of a heart murmur in cardiovascular pathology. Recording system FKG. Normal FCG. The concept of the ECHO. Diagnostic value. Examination of the patients. The concept of the anatomy of the heart valves. Heart murmurs, mechanism of occurrence, classification. Unlike organic noise from functional. Systolic. and diastolic murmurs: protodiastolic, mesogastric., presystolic, total, diastolic. Character the timbre, the duration of the noise. The best place listening to heart murmurs, the way their distribution. Pericardial RUB, pleuropericardial noises. Auscultation of the arteries and veins. Dual tone Traube, abnormal, diastolic murmur Vinogradova – Durose. The concept of phonocardiography, its value in the diagnosis of diseases of the heart. The concept of polycardiography study and its importance for judgments on the functional status heart. Main indicators of ECHOCARDIOGRAPHY.

14	**14. Study of the blood vessels. Characteristics of the pulse in a healthy person and disease of the cardiovascular system. . The concept of hypertension and hypotension. Methods of measuring A/D. The ECG interpretation.** Examination of the patients . The rules and methodology of the study of the pulse, its main characteristics (in Latin terminology). Rules, methods and techniques of measuring blood pressure. Maximal and minimal and the average pressure, " random" and the main pressure. Pulse pressure. Oscillography. Sphygmography. Capillaroscopy. Objectified. of the pulse wave velocity. Venography. Venous pressure, the technique of definition. The speed of blood flow, measurement, diagnostic. value. Number blood. Cardiac output and periferic. resistance. Orthostatic test the sample with the delay reathing. The system of ECG registration. The concept of ECG, diagnostic. value. The electrocardiograph. The primary and secondary leads. Rules, methods and technique of ECG registration. The concept of vectorcardiography.
15	**15. The normal electrocardiogram. The notion of a teeth, intervals and segments on ECG and mechanism of their formation.ECG in violation of the functions of automatism, excitability. Violation of the functions of the heart: automaticity, excitability, conductivity, contractility.** Examination of the patients. The concept of the electric axis of the heart. The method of decoding normal ECG (rhythm, electric. axis, Heart rate, calculation of waves and intervals). Basic clinical. syndromes. Dysfunction of automaticitysinus node: sinus bradycardia, tachycardia, arrhythmia. Beats: atrial, nodal, the ventricular right and left ventricular. Paroxysmal tachycardia. Atrial fibrillation. The flicker of the ventricles. The concept of defibrillation of the heart. Violation conductivity. Predserdno – ventricular blockade. Blockade of the right and left legs of bundle branch block. Diagnosis and clinical the value of conduction disorders.
16	**16. Symptomatology of rheumatic fever and rheumatic heart disease primary. The etiology and pathogenesis of rheumatic fever. Examination of patients with rheumatism. Symptomatology of rheumatism and primary of rheumatic heart disease. Symptomatology of mitral heart defects (mitral valve and stenosis).** Examination of the patients with the disease of rheumatism. Symptomatology (complaints, inspection, palpation,Of mitral valve stenosis, hemodynamic stenosis of the mitral valve.. Change ECGFCG and ECHOCARDIOGRAPHY in mitral heart defects.
17	**17. The symptomology of aortic valvular heart disease (insufficiency and stenosis of estuary of aorta). Circulatory failure (compensated and decompensated state). Vascular insufficiency.** Supervision of patients with acquired defects of the heart s. Failure aortic valve hemodynamics at its failure. Symptomatology (complaints, physical examination, palpation, percussion, auscultation). Stenosis of the aortic valve, hemodynamics at stenosis of the aortic valve. The symptomology. The change of ECG, FCG, ECHO in the aortic vices heart. Clinical manifestations(cardiac asthma, pulmonary edema), diagnosis, emergency treatment. Stages of

	chronic cardio)
18	18. **Symptomatology of hypertension. The concept of symptomatic hypertension (renal, endocrine, Central hemodynamic).** Examination of the patients with hypertensive disease Symptomatology. The main complaints, and change SSS an objective examination. Laboratory and instrumental diagnostics of hypertonic. disease. The concept of hypertensive crisis and emergency. The main groups of symptomatic hypertension.

7. Form and content of the organization of independent education

The main purpose of the student's independent work is specific under the guidance and supervision of the teach
to form and develop knowledge and skills for independent study.

Requirements for self-employment:

- to independently acquire new knowledge and acquire skills.
- Identify convenient ways and means to find the necessary information.
- effective use of information sources and addresses.
- Work with traditional educational and scientific literature, normative documents
- Work with electronic textbooks and databases.
- Targeted use of the Internet.
- to determine the rational solution of the given task.
- Database analysis.

- In the organization of independent work of the student follows the subject of propaedeutics of int

- Forms are used:

- Independent study of some theoretical topics with the help of textbooks;
- Preparation of information (abstract) on the given topics;
- practical application of theoretical knowledge;
- work with automated training and control systems;
- Scientific article, preparation of a report for the conference, etc.

Crossword, chainword, weak ring, problematic issue, etc. preparation

Independent work

№	**TOPIC**	**Hour**
1	Symptomatology of bronchitis (acute and chronic), diagnostic criteria.	6
2	Symptomatology of pneumonia, diagnostic criteria.	6
3	Bronchial asthma. Etiopathogenesis, clinic, diagnosis, treatment. Peak flowmetry.	6
4	Pulmonary emphysema. Laboratory and instrumental testing methods. Spirography.	6

5	Bronchiectasis. Laboratory and instrumental testing methods. Bronchography and bronchoscopy.	6
6	Symptomatology of pleurisy, diagnostic criteria.	6
7	Symptomatology of myocardial infarction, diagnostic criteria.	6
8	Diagnostic criteria for symptomatic hypertension.	6
9	Diagnostic criteria for mitral regurgitation.	6
10	Diagnostic criteria for cardiac aortic valve defect.	6
11	Electrocardiography. Normal ECG.	6
12	Cardiac arrhythmias. ECG diagnostics.	6
	Total:	72

INDEPENDENT WORK 3 COURSES OF MEDICAL AND MEDICAL-PEDAGOGICAL FACULTIES

№	**NAME OF THEME**	**Watch**
1.	Acute Respiratory Distress Syndrome	6
2.	Asthmatic status.	6
3.	Emphysema of the lungs	6
4.	Diagnosis of obstructive pulmonary insufficiency	6
5.	Diagnosis of bronchiectasis	6
6.	Lung abscess	6
7.	Disease of the cardiovascular system resulting from lung disease	6
8.	Infectious ecdocarditis.	6
9.	Hypertensive crises.	6
10.	Hypertonic disease.	6
11.	Acute coronary syndrome.	6
12.	Acute circulatory failure.	6
	TOTAL	72

SELF-CONTAINED WORK

№	**Topic**	**Hours**

1.	Acute respiratory distress syndrome	6
2.	Asthmatic status.	6
3.	Emphysema of the lungs	6
4.	Diagnosis of obstructive pulmonary insufficiency	6
5.	Diagnosis of bronchiectasis	6
6.	Abscess of the lungs	6
7.	Disease of the cardiovascular system resulting from lung disease	6
8.	Infectious ectocarditis.	6
9.	Hypertensive crises.	6
10	Hypertonic disease.	6
11.	Acute coronary syndrome.	6
12.	Acute lack of blood circulation.	6
	Total	72

A COURSE OF PRACTICAL SKILLS

1. Inquiry of patients
2. General examination of patients
3. Examine body parts
4. Palpation of the chest
5. Percussion method and performance technique
6. Comparative percussion of the lungs
7. Topographic percussion of the lungs
8. Determine the area of the crane
9. Determine the upper limit of the lungs
10. Determine the lower limit of the lungs
11. Identify lung excursions
12. Pulmonary auscultation
13. Implementation of bronchophonia
14. Determination of external respiratory function
15. Palpation of the heart area
16. Cardiac percussion: determining the boundaries of absolute and relative bluntness
17. Cardiac auscultation
18. Determine the configuration of the heart
19. Detection of pulse in peripheral blood vessels
20. Methods of measuring blood pressure

21. ECG recording technique
22. Principles of ECG analysis

List of used literature

Basic literature

1. GadaevA; Karimov M.Sh ..; "Propaedeutics of internal diseases" T. 2012;
2. Muxin N.A., Moiseev V.I. "Propedevtika vnutrennix bolezney", M. 2000.
Vasilenko V.X .. Grebenev A.L “Propedevtika vnutrennix bolezney”, M.1989

Additional literature

1. Grebenev A.L. "Propedevtika vnutrennix bolezney", M. 2001.
2. Struto`nsky A.V. "Osnovo` semiotiki zabolevaniy vnurennix organov" M. 2004. MEDpress-inform.
3. Karabaeva R.A. Practicum on the propagation of internal diseases, 1992.
4. Therapy per. s angl. g` pod red. Chuchalina M. 1997.
5. Geotar M. Terapevticheskiy spravochnik Vashingtonskogo Universiteta, per. s angl. -1996.
6. Textbook. Harrisons principles of internal medicine. Fauci A. Braunwald E ed. McGraw-Hill, 1998.
7. Textbook of internal medicine. William N. Kelley ed. Lippincott - Ravenpublishers, 1997.
8. Translation with English under the editorship of acad. RAMN V.T.Ivashkina “Internal diseases of Davidson” Geotar M. 2009

Websites:

1.www.tma.uz
2.www.ziyonet.uz
3.www.medlincs.ru
4.www.medbook.ru.

Didactic tools

Equipment, tools, models, hardware: computer, projector.

List of multimedia on the subject "IKP" available at the department:

Structure of centralized and decentralized hospital kitchen,

"Symptomatology of depression",

"Symptomatology of pleurisy"

"Arrhythmias",

"Bronchial asthma",

"Congenital heart disease"

"Rheumatoid arthritis",

"Myocardial infarction",

“Examination of blood vessels.

The work program was considered at a meeting of the department

«__» _____ 2021

Chair holder, t.f.d. _____ Nurboyev F.E.

5.2. Content of practical training topics.

Topic1

The task of the science of propaedeutics of internal medicine. Verification procedure. Medical deontolog understanding of. Scheme of the medical report, methods of clinical examination of patients: interrogation, examination, palpation, percussion, auscultation. Patient complaints: basic, 2 - Level. Current medical history, life history

Admission to the clinic. Department of Propaedeutics of Internal Medicine and the requirements of the get acquainted The concept of internal diseases. Internal medicine is a branch of medicine that deals with intern studies the causes, clinical manifestations, treatment and prevention of diseases. Propedeutics science Diagnosis of internal diseases - methods of examination of patients (inquiry, examination, palpation, percussion, auscultation), basic clinical and laboratory examination, diagnosis of diseases teaches symptoms and syndromes. Physician-patient relationship, physician duty, and The science of functions - medical deontology. Diagnosis scheme. Scientific, medical, importance as a legal document. Interrogation of the patient in a psychotherapeutic approach, in itself specific importance. Patient complaints: primary, secondary. History of disease development.

Interactive method: summary, Brainstorming, Gallery, Snowball

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,4,12

Websites

Topic2

Patient Inquiry. Individual work of students with patients, complaints sum and medical and life history. General examination of patients (of the patient general condition, state of consciousness, body composition). General examination rules, patient general inspection. Examination of body parts: head, face, neck, limbs, skin coatings. Fever. Temperature changes. Anthropometry. Anthropometric formula. Illness the importance of anthropometry in diagnosis. Index Ketle.

Individual work of students with patients. Summary of complaints and medical and life history. Condition of consciousness, types of disorders (clear, stupor, sopor, coma, irritating changes in consciousness).

Common types of coma (alcoholic, apoplexic, hypoglycemic, diabetic, hepatic, uremic, epileptic). Patient status (active, passive, mandatory). Changes in head shape and size (microcephaly, head pulsation, etc.). Facial examination - clear face, gender and age signs. Pathological changes, Corvisor face, lion face, Parkinson's mask, Hippocratic face, face asymmetry of muscle movement and others. Eyes, eyelids, nose shape and mouth,

examination of the neck, skin and mucous membranes. Methods for measuring body temperature. Fever
characteristic. Degrees of temperature rise. Types of heating. Fever course. Crisis. Lizis.
Hypothermia. Diagnostic value of temperature measurement. Heat dissipation.
Interactive method: Weak ring, round table, pen in the middle of the table
References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,4,12
Websites
Topic 3
As a method of palpation and percussion examination. Palpation of the thyroid gland and lymph nodes. Use of palpation and percussion as clinical examination. Palpation and percussion development history, techniques, methods, diagnostic value. Percussion sound characteristics.
Sequence of lymph node palpation. Characterization of lymph nodes in the normal state.
Palpation of the thyroid gland. History of the development of percussion as a method of examining patients. M
the role of Auen-brugger in the development, its application in the practice of Corvisor. In the development of
the importance of our compatriots. Sounds obtained in percussion. Comparative and topographic percussion.
Basic rules of percussion
Interactive method: 3-stage interview, brainstorming, beehive
References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,3,4,8
Websites
Topic 4
Methods of examination of patients with respiratory diseases: interrogation, chest examination of the skull, palpation. Lung percussion, comparative percussion.
The main complaints and pathogenesis. Chest pain, shortness of breath. Cough (dry, wet, duration, time of appearance). Sputum secretion. Bleeding from the nose and lungs, duration. From the lungs,
bleeding from the nose, throat, esophagus, stomach. Diagnostic importance Disorders of nasal breathing. Examination of the upper respiratory tract. Level 2 complaints: fever, weakness, loss of appetite. Life and medical history. Chest examination. Rhythm arrhythmias and shortness of breath. Chest palpation and percussion techniques, determination of resistance. Comparative percussion sequence. Percussion over the lungs in norm and pathology sound change.
Interactive method: Academic controversy, weak loop, snowball
References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,3,4,8
Websites
Topic 5
Topographic percussion of healthy and respiratory patients. Auscultation as a method of objecti techniques and rules. Pulmonary auscultation: basic respiratory sounds (vesicular, bronchial).
Pulmonary percussion technique. Determine the upper limit of the lung or its height and width.
Determining the lower limit of the lungs. Conditional topographic lines of the thorax. Lower lung
determine the mobility of the edge. Pulmonary edema in various physiological and pathological conditions
changes. Techniques and rules of lung auscultation. Basic (vesicular and bronchial breathing) breathing
interactions, the mechanism of their occurrence. Changes in basic respiratory sounds: amplification and
attenuation (physiological and pathological) and their diagnostic significance.
Interactive method: 3-stage interview, round table, snow pile
References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,3,4,5,6
Websites
Topic 6
Pulmonary auscultation: additional respiratory noises (dry and wet wheezing, crepitation and pleural friction noise). Diagnostic value. Bronchophonia. Infected with respiratory organs Methods of functional instrumental examination of patients: spirometry, pneumotachometry, oxyhemotherapy. X-ray examination of the lungs, bronchoscopy, bronchography, tomography. Diagnostic value.
Whistling, mechanism of occurrence. Dry low tone, high tone, wet tone, soundless, localization and distribution of small, medium, large vesicles, wheezing. X-ray of the lungs and the concept of radiography. Bronchography. Bronchoscopy. Tomography. Spirometry. Spirography. Importance of functional examination of patients with respiratory diseases. Cpirogram. Pneumatoxometry, oxyhemometry, pneumatoxography.
Interactive method: assimilation method, weak ring, beehive, ration method
References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,3,4,5,6
Websites
Topic 7
Laboratory examination: examination of sputum and pleural fluid. Bronchial permeability disorder syndrome. Diagnosis of acute and chronic bronchitis. Smoking to the respiratory system negative impact.
How to get a sputum test (general examination, sputum culture). Pleural puncture technique. Diagnostic value of pleural fluid. Laboratory examination of sputum and pleural fluid. Transsudatni difference from exudate. Macroscopic, microscopic examination of native and painted vehicles and bacteriological examination. Bronchial obstruction syndrome, pathogenesis. Complaints, browse Palpation. Percussion, auscultation. Symptoms of acute and chronic bronchitis, it The role of the profession in development.
Interactive method: Academic controversy, pen in the middle of the table
References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,3,4,5,6
Websites
Topic 8
Flatulence syndrome. Obstructive pulmonary disease, bronchial asthma, pneumonia examination of patients with emphysema. Pulmonary congestion syndrome. Lungs inflammatory diseases of the tissues (croup and pneumonia).
Pathogenesis of flatulence syndrome in lung tissue. Complaints, review. Palpation. Percussion, auscultation. Examination of patients with obstructive pulmonary disease. Bronchial asthma and pulmonary emphysema. Pathogenesis of pulmonary congestion syndrome. Complaints, out of sight forgive Palpation. Percussion, auscultation. Patients with inflammatory bowel disease check Symptoms of crouposis and focal pneumonia.
Interactive method: Group check, 3-stage interview, snowball
References: 1. (basic literature) -1,2,3
2. (additional) - 1,2,3,4,5,6
Websites

Topic 9
Syndrome of accumulation of air and fluid in the pleural cavity. With dry and exudative pleurisy

examination of patients. Hydrothorax, pneumothorax symptomatology. Types of pneumothorax (open, closed, covered). Pulmonary cavity syndrome. Patients with pulmonary abscess, bronchiectasis check Curation of patients. Writing a medical report.

Pathogenesis of air and fluid accumulation syndrome in the pleural cavity. Complaints, review. Palpation. Percussion, auscultation. Symptomatology of dry and exudative pleurisy. Hydrothorax, symptomatology of pneumothorax.

Types of pneumothorax (open, closed, closed). Pathogenesis of pulmonary cavity syndrome. Complaints, browse Palpation. Percussion, auscultation. Bronchiectasis, lung abscess symptomatology. Independent work of students, under the supervision of a teacher.

Interactive method: Incident method, Gallery, academic controversy

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,3,4,5,6

Websites

Topic10

Intermediate control №1 for respiratory diseases.

Methods of examination of patients with cardiovascular disease. Inquiry, by sight forgive Examination of the heart and peripheral arteries. Palpation of the heart area

Write a medical report on respiratory diseases. Inquiry. The main complaints are them pathogenesis. Pain in the heart area. Mechanism of pain formation, localization, nature, duration, irradiation, intensity, distribution. Shortness of breath, the intensity of the mechanism of heart attack. Cardiac asthma. Heartbeat. Cough, hemorrhage, mechanism of occurrence, diagnostic importance Review. Body structure. Es-hushi. Condition. Skin color. Examine the heart area forgive Heart fat. Palpation of the apex and heartbeat. Systolic and diastolic vibrations determination. Symptoms of "cat wheezing". Palpation of the aorta, epigastric pulsation, differentiation from heart and liver pulsation.

Interactive method: summary method, pen in the middle of the table, 3-step interview

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,3,4,5,6

Websites

Topic 11

Cardiac percussion. Determining the relative threshold of heart failure in a healthy person and patholog Absolute heart failure in a healthy person and in pathology of the respiratory system, heart and blood v determine the boundary. Cardiac configuration, X-ray analysis. Diagnostic value

Techniques and rules of cardiac percussion. Determining the extent of relative cardiac arrest and vascular occlu method. Determining the waist of the heart. Relative heart rate. Pathology of heart failure changes: in respiratory and cardiovascular diseases, changes in body position. Absolute heart failure boundary detection method. The heart is an absolute measure of suffocation. Breathing and heart, heart in vasc change in the limit of suffocation. The diagnostic value of these changes.

Interactive method: ration method, academic polemics

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,4,6,8

Websites

Topic 12

Cardiac auscultation: characteristics of heart sounds in a healthy person. Hearing heart tones points. The main properties of sounds: timbre, power. Increase and decrease of basic sounds. Changes in sounds in cardiovascular disease: the rhythm of the horse's hooves, the rhythm of the quail's pendulum rhythm, embryocardia. Tachycardia, bradycardia, arrhythmia.

Cardiac auscultation. Auscultation rules. Covers the anterior wall of the chest
projection and areas of their hearing. Cardiac auscultation: In different phases of respiration, the body is different in a relaxed state and after physical exertion. The difference between systole and diastole on cardiac auscultation. The concept of heart sounds (1,2,3,4), the mechanism of their formation. Basic (1,2,3,4) and additional mitral valve opening sound, pericardial tone, division of sounds, hesitation, rhythm, their pathology change

Interactive method: problem solving, gallery

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,4,6,8

Websites

Topic 13

Cardiac auscultation. The mechanism of formation of cardiac murmurs, their classification. Heart, bloo Characterization of cardiac interactions in pathology. FKG recording system. About normal FKG, EXO understanding. Diagnostic value

Blood circulation. An understanding of the anatomy of the heart valves. Heart murmurs, their formation mechanism. Classification. The difference between functional and organic interactions. Interactions in the card attitude. Systolic and diastolic noises: protodiastolic, mesodiastolic, presystolic, total, diastolic nature, timbre, duration of interactions. The best places to hear the noise. Pericardial friction noise, pleuropericardial noise. Auscultation of arteries and veins. Traube two sounds, pathological, diastolic, the interaction of Vinogradov to Dyuroz. The concept of FKG and its diagnostic significance. Understanding polycardiography examination and its importance. EXOKG and its diagnostic significance understanding of. The main indicators of EXOKG.

Interactive method: assimilation method, beehive, brainstorming

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,4,5,6

Websites

Topic 14

Vascular examination. Pulse in a healthy person and in pathology of the cardiovascular system characteristic. Arterial blood pressure. The concept of hypertension and hypotension. Arterial blood pressure measurement method. ECG recording.

Vascular examination. Rules and methods. The main characteristic of the pulse. Blood pressure measurement
rules, methods and techniques. Maximum, minimum, medium pressure. “Random” and basic pressure. Pulse pressure. The concept of hypertension and hypotension. Oxyllography, sphygmography, capillary microscopy. Pulse determine the speed of the wave. Phlebography. Venous pressure, method of determination. Measurement of bleeding rate, diagnostic value. The amount of blood circulating. Cardiac hemorrhage and peripheral resistance. Orthostatic test: respiratory arrest test. The main function of the heart. Heart-dipole. In the chest anatomical location of the heart. The concept of ECG and its diagnostic value. Basic and advanced connections. The concept of vectorcardiography.

Interactive method: Academic polemics, rational method, Cluster.

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,4,5,6

Websites

Topic 15

Normal ECG. The concept of teeth, intervals, segments and the mechanism of their formation. ECG in case of impaired motor functions. Cardiac dysfunction: automatism,

contraction, excitation, conduction

The concept of the electrical axis of the heart. Normal ECG reading (rhythm, electrical axis, teeth, intervals). Basic clinical syndromes. When automatism is disturbed in the sinus node: sinus bradycardia, tachycardia, arrhythmia, extrasystoles: ventricular, node, left and right ventricular extrasystoles. Paroxysmal tachycardia. Mercal arrhythmia, ventricular fibrillation. The concept of cardiac defibrillation. Conductivity disorder. Blockages: ventricular septum. GIS tumor of the right and left leg and its diagnostic and clinical significance.

Interactive method: 3-stage interview, brainstorming, gallery.

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,3,4,6,8

Websites

Topic 16

Rheumatism and symptomatology of primary rheumatic heart disease. Etiology and pathogenesis of rhe Examination of patients with rheumatism. Symptomatology of mitral regurgitation (mitral valve) deficiency and mitral stenosis).

Rheumatism and symptomatology of primary rheumatic heart disease. Etiology and pathogenesis of rheumatis Examination of patients with rheumatism. Symptomatology of mitral regurgitation (mitral valve) deficiency and mitral stenosis).

Interactive method: snowball fight, academic polemics.

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,3,4,6,8

Websites

Topic 17

Symptomatology of aortic defects (aortic valve insufficiency and aortic stenosis). Circulatory insufficiency (compensated and decompensated condition). Tomir deficiency.

Symptomatology of aortic defects (aortic valve insufficiency and aortic stenosis). Blood circulatory failure (compensated and decompensated condition). Vascular insufficiency.

Interactive method: 3-stage interview, incident method

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,3,4,5,6

Websites

Topic 18

Symptomatology of hypertension. The concept of symptomatic hypertension (kidney, endocrine, central, hemodynamic).

The concept of hypertension. Etiology. Pathogenesis. Symptomatology. Complaint, out of sight forgiveness, palpation, percussion, auscultation. Laboratory-instrumental diagnostics. Hypertensive crisis understanding about, emergency care.

Interactive method :, incident method, academic polemics

References: 1. (basic literature) -1,2,3

2. (additional) - 1,2,3,4,5,6

Websites

Content of clinical topics

№	Summary of the names of clinical courses
1.	**The task of the science of propaedeutics of internal medicine. Procedure for examination of patients. The concept of medical deontology. Scheme of the medical report, methods of clinical examination of patients: interrogation, examination, palpation, percussion, auscultation. .Patient curation.Collection of patient complaints :. : basic, 2nd level. Current medical history, life history collection.**
2.	**Inquire the patient individually. Individual work of students with patients, sum of complaints and medical and life history. General examination of patients (of the patient general condition, state of consciousness, body composition). General examination rules, general of body parts: head, face, neck, limbs, skin coatings. Fever. Temperature changes. Anthropometry. Anthropometric formula. Illness rmulari, the importance of anthropometry in the diagnosis. Index Ketle. Patient curation. Individual work of students with patients. Summary of complaints and medical and life history.** Condition of consciousness, types of disorders (clear, stupor, sopor, coma, irritating changes in consciо Common types of coma (alcoholic, apoplexic, hypoglycemic, diabetic, hepatic, uremic, epileptic). Patient status (active, passive, mandatory). Changes in head shape and size (microcephaly, head pulsation, etc.). Facial examination - clear face, gender and age signs. Pathological changes, Corvisor face, lion face, Parkinson's mask, Hippocratic face, face asymmetry of muscle movement and others. Eyes, eyelids, nose shape and mouth, examination of the neck, skin and mucous membranes. Methods for measuring body temperature. Feve characteristic. Degrees of temperature rise. Types of heating. Fever course. Crisis. Lizis. Hypothermia. Diagnostic value of temperature measurement. Heat dissipation.
3	**Palpation and percussion as a method of examination. Palpation of the thyroid gland and lymph asi. Use of palpation and percussion as clinical examination. Palpation and percussion development history, techniques, methods, diagnostic value. Percussion sound characteristics. . Sequence of lymph node palpation. Characterization of lymph nodes in the normal state. Palpation of the thyroid gland.i. Sounds obtained in percussion. Comparative and topographic pe Basic rules of percussion. Patient curation**
4.	**Methods of examination of patients with respiratory diseases: interrogation, chest examination of the skull, palpation.** Lung percussion, comparative percussion. The main complaints and pathogenesis. Chest pain, shortness of breath. Cough (dry, wet, duration, time of appearance). Sputum secretion. Bleeding from the nose and lungs, duration. From the lungs, bleeding from the nose, throat, esophagus, stomach. Diagnostic importance Disorders of nasal breathing. Examination of the upper respiratory tract. Level 2 complaints fever, weakness, loss of appetite. Life and medical history. Chest examination. Rhythm arrhythmias and shortness of breath. Chest palpation and percussion techniques, determination of resistance. Comparative percussion sequence. Percussion over the lungs in norm and p sound change. . **Patient curation**
5.	**Topographic percussion of healthy and respiratory patients. Auscultation as a method of objective verification. Auscultation techniques and rules. Pulmonary auscultation: basic respiratory interactions (vesicular, bronchial).** Pulmonary percussion technique. Determine the upper limit of the lung or its height and width. Determining the lower limit of the lungs. Conditional topographic lines of the thorax. Lower lungqirr

	of the pulmonary border in physiological and pathological conditions changes. Techniques and rules of lung auscultation. Basic (vesicular and bronchial breathing) breathing interactions, the mechanism of their occurrence. Changes in basic respiratory sounds: amplification and attenuation (physiological and pathological) and their diagnostic significance. . **Patient curation**
6.	**Pulmonary auscultation: additional respiratory noises (dry and wet wheezing, crepitation and pleural friction noise). Diagnostic value. Bronchophonia. Infected with respiratory organs** Methods of functional instrumental examination of patients: spirometry, pneumotachometry, oxyhemotherapy. X-ray examination of the lungs, bronchoscopy, bronchography, tomography. Diagnostic value. Patient curation Whistling, mechanism of occurrence. Dry low tone, high tone, wet tone, soundless, localization and distribution of small, medium, large vesicles, wheezing. X-ray of the lungs and the concept of radiography. Bronchography. Bronchoscopy. Tomography. Spirometry. Spirography. Importance of functional examination of patients with respiratory diseases. Cpirogram. Pneumatoxometry, oxyhemometry, pneumatoxography.
7.	**Laboratory examination: examination of sputum and pleural fluid. Bronchial permeability disorder syndrome. Diagnosis of acute and chronic bronchitis. Smoking to the respiratory system negative impact. Patient curation** How to get a sputum test (general examination, sputum culture). Puncture the pleura. Lish technique. Diagnostic value of pleural fluid. Laboratory examination of sputum and pleural fluid. examination.The difference between transudate exudate. Macroscopic, microscopic examination of nati scopic, macroscopic and bacteriological examination. Bronchial Permeability Syndrome, Complaints, browse Palpation. Percussion, auscultation. Symptoms of acute and chronic bronchitis
8.	**Flatulence syndrome. Obstructive pulmonary disease, bronchial asthma, pneumonia** **Examination of patients with Ka emphysema. Pulmonary congestion syndrome. Inflammatory pneumonia). Patient curation** Collection and examination of complaints of flatulence in lung tissue. Palpation. Percussion, auscultation. Examination of patients with obstructive pulmonary disease Bronchial asthma hyal asthma and pulmonary emphysema. Complaints of pulmonary congestion syndrome, visual forgive Palpation. Percussion, auscultation. Inflammation of the lung tissue tax inspection. Symptoms of crouposis and focal pneumonia.
9.	**Syndrome of accumulation of air and fluid in the pleural cavity. With dry and exudative pleurisy examination of patients. Hydrothorax, pneumothorax symptomatology. Types of pneumothorax (closed, covered). Pulmonary cavity syndrome. Patients with pulmonary abscess, bronchiectasis check Curation of patients. Writing a medical report. Curation of patients** Collection and examination of complaints of air and fluid accumulation syndrome in the pleural cavity. Palpation. Percussion, auscultation. Symptomatology of dry and exudative pleurisy. Hydrothorax, symptomatology of pneumothorax. Types of pneumothorax (open, closed, closed). Collection of complaints of pulmonary cavity syndrome browse Palpation. Percussion, auscultation. Bronchiectasis, lung abscess symptomatology. Independent work of students, under the supervision of a teacher.
10.	**Intermediate control №1 for respiratory diseases.** **Methods of examination of patients with cardiovascular disease. Inquiry, by sight** **forgive Examination of the heart and peripheral arteries. Palpation of the heart area** **Curation of patients** Methods of examination of patients with cardiovascular disease. Inquiry. The main complaints are Pain in the heart area. Mechanism of pain formation, localization, nature, duration, irradiation, intensity, distribution. Shortness of breath, the intensity of the mechanism of heart attack.

	Cardiac asthma. Heartbeat. Cough, hemorrhage, mechanism of occurrence, diagnostic importance Review. Body structure. Es-hushi. Condition. Skin color. Examine the heart area forgive Heart fat. Palpation of the apex and heartbeat. Systolic and diastolic vibrations determination. Symptoms of "cat wheezing". Palpation of the aorta, palpation of the epigastric pulsatio differentiation from heart and liver pulsation.
11.	**Cardiac percussion. Determining the relative threshold of heart failure in a healthy person and p Absolute heart failure in a healthy person and in pathology of the respiratory system, heart and l determine the boundary. Cardiac configuration, X-ray analysis. Diagnostic value Curation of patients** Techniques and rules of cardiac percussion. Determining the extent of relative cardiac arrest and vascul method. Determining the waist of the heart. Determining the relative limit of cardiac arrest. Pathology c changes in the body: in diseases of the respiratory system and heart, vascular disease, changes in body boundary detection method. The heart is an absolute measure of suffocation. Respiratory and cardiovas change in the limit of suffocation. The diagnostic value of these changes.
12.	**Cardiac auscultation: characteristics of heart sounds in a healthy person. Hearing heart tones points. The main properties of sounds: timbre, power. Increase and decrease of basic sounds. Changes in sounds in cardiovascular disease: the rhythm of the horse's hooves, the rhythm of the pendulum rhythm, embryocardia. Tachycardia, bradycardia, arrhythmia. Curation of patients** Cardiac auscultation. Auscultation rules. Covers the anterior wall of the chest projection and areas of their hearing. Cardiac auscultation: In different phases of respiration, the body i in a relaxed state and after physical exertion. The difference between systole and diastole on cardiac au The concept of heart sounds (1,2,3,4), the mechanism of their formation. Basic (1,2,3,4) and additional mitral valve opening sound, pericardial tone, division of sounds, hesitation, rhythm, their pathology change
13.	**Cardiac auscultation. The mechanism of formation of cardiac murmurs, their classification. Hear Characterization of cardiac interactions in pathology. FKG recording system. About normal FK understanding. Diagnostic value. Curation of patients** Blood circulation. Cardiac interactions, the mechanism of their formation. Differentiation of function the cardiac activity phase qi Systolic and diastolic noises: protodiastolic, mesodiastolic, presystolic, tota nature, timbre, duration of interactions. The best places to hear the noise. Pericardial friction noise, pleuropericardial noise. Perform auscultation of arteries and veins. Traube two sounds, pathological diastolic, the interaction of Vinogradov to Dyuroz.The concept of FKG and its diagnostic Understanding polycardiography examination and its importance. EXOKG and its diagnostic significan understanding of. The main indicators of EXOKG.
14.	**Vascular examination. Pulse in a healthy person and in pathology of the cardiovascular system characteristic. Arterial blood pressure. The concept of hypertension and hypotension. Arterial bl pressure measurement method. ECG recording. Curation of patients** Vascular examination. Rules and methods. The main characteristic of the pulse. Blood pressure measur rules, methods and techniques. Maximum, minimum, medium pressure. “Random” and basic pressure. The concept of hypertension and hypotension. Oxyllography, sphygmography, capillary microscopy. P determine the speed of the wave. Phlebography. Venous pressure, method of determination. Measurem diagnostic value. The amount of blood circulating. Cardiac hemorrhage and peripheral resistance. Orth test: respiratory arrest test. The anatomical location of the heart in the chest is important for its diag secondary links. The concept of vectorcardiography.
15.	**Normal ECG. The concept of teeth, intervals, segments and the mechanism of their formation. ECG in case of impaired motor functions. Cardiac dysfunction: automatism, contraction, excitation, conduction. Curation of patients**

	The concept of the electrical axis of the heart. Normal ECG reading (rhythm, electrical axis, teeth, inter Basic clinical syndromes. When automatism is disturbed in the sinus node: sinus bradycardia, tachycard extrasystoles: ventricular, node, left and right ventricular extrasystoles. Paroxysmal tachycardia. Mercal arrhythmia, ventricular fibrillation. Perform cardiac defibrillation. Conductivity disorder. Blockages: ventricular septum. GIS tumor of the right and left leg and its diagnostic and clinical signifi
16.	**Rheumatism and symptomatology of primary rheumatic heart disease. Etiology and pathogenesis Examination of patients with rheumatism. Symptomatology of mitral regurgitation (mitral valve) deficiency and mitral stenosis) .Curation of patients** Rheumatism and symptomatology of primary rheumatic heart disease. Examination of patients with mitral regurgitation and mitral regurgitation (mitral valve insufficiency and mitral stenosis).
17.	**Symptomatology of aortic defects (aortic valve insufficiency and aortic stenosis). Circulatory insufficiency (compensated and decompensated condition). Tomir deficiency.Curation of patients** Examination of patients with aortic defects (aortic valve insufficiency and aortic stenosis). Blood circulatory failure (compensated and decompensated condition). Vascular insufficiency.
18.	**Symptomatology of hypertension. The concept of symptomatic hypertension (kidney, endocrine, central, hemodynamic) .Curation of patients** The concept of hypertension, symptomatology. Complaint collection, review forgiveness, palpation, percussion, auscultation. Laboratory-instrumental diagnostics. Hypertensive cris understanding about, emergency care.

7. Form and content of the organization of independent education

The main purpose of the student's independent work is specific under the guidance and supervision of the teach to form and develop knowledge and skills for independent study.

Requirements for self-employment:

- to independently acquire new knowledge and acquire skills.
- Identify convenient ways and means to find the necessary information.
- effective use of information sources and addresses.
- Work with traditional educational and scientific literature, normative documents
- Work with electronic textbooks and databases.
- Targeted use of the Internet.
- to determine the rational solution of the given task.
- Database analysis.

- **In the organization of independent work of the student follows the subject of propaedeutics of int**
- **Forms are used:**

- Independent study of some theoretical topics with the help of textbooks;
- Preparation of information (abstract) on the given topics;
- practical application of theoretical knowledge;
- work with automated training and control systems;
- Scientific article, preparation of a report for the conference, etc.

Crossword, chainword, weak ring, problematic issue, etc. preparation

2. Theoretical training materials

1	Introduction. History of the development of science. Purpose, tasks. Methods of clinical examination of patients. Inquiry. Complaints. Life history. Physical examination methods: examination, palpation, percussion, auscultation.
2	Respiratory system. Control methods. Inquiry. Physical examination methods: objective examination methods such as examination, palpation, percussion and auscultation. Primary and secondary respiratory interactions. Additional tests include bronchoscopy, bronchography, and tomography. Check for sputum.
3	Basic clinical syndromes. Pulmonary tissue condensation syndrome. Pulmonary cavity syndrome. Air and fluid accumulation syndrome in the pleural cavity. Bronchospasm syndrome.
4	Cardiovascular system. Control methods. Inquiry. Review. Palpation, percussion and auscultation. Heart tones are the norm and pathology. Noises.
5	The concept of ECG, FKG and ExoKG. ECG changes in cardiac hypertrophy. ECG changes in acute myocardial infarction. Arrhythmias. The concept of cardiac fibrillation. Acute rheumatic fever. Heart defects. Mitral foramen narrowing. Mitral and aortic heart defects.

Report №1

Introduction. History of the development of science. Purpose, tasks. Methods of clinical examination of patients and general symptoms of internal diseases. Inquiry. Complaints. Life history. Physical examination methods: examination, palpation, percussion, auscultation.

1. Teaching module of lecture technology.

Class time - 2 hours	Number of students: 20 to 60
Training form	Lecture information lesson
Lecture plan	1. History and development trends of the science of propaedeutics of internal diseases. 2. The basis of medical deotology and medical secrecy. 3. Information about iatrogeny. 4. The concept of diagnosis and semiotics. 5. Familiarize patients with the procedure. 6.Propedical clinical functions.
The purpose of the lecture:	Introduce students to the subject of ICP. Its role in medicine, history. Medical deontology. The concept of diagnosis.
Teaching style	Lecture interview
Form of teaching	Large, grouped.
Teaching equipment	Textbook, lecture content, projector, computer.
Teaching status	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers.

1.2. Technological map of lectures.

Stages of work	Educator	Learners

and time.		
Preparatory phase	Preparatory phase 1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
1. Introduction to the topic (15 minutes)	1. Introduces the purpose and function of the topic 2. Asks questions on the topic.	They listen Students answer the questions posed
2 - the main stage (65 minutes)	1. Explains the topic, showing slides 2. Uses posters	They listen They listen
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

Brief description

Medical deontology, goals of propaedeutic clinic. Semiotics. The concept of diagnosis. General plan of examination of patients. Patient anamnesis, medical history. Brief information about the development of internal medicine. The main goals and objectives of the ICP. About medical deontology. Methods of examination of patients. The importance of the medical record as a scientific, medical and legal document. The importance of questioning and anamnesis in the diagnosis. Hereditary factors. Diseases experienced.

Тема: Кириш. Ички касалликлар фанининг Узбекистонда тараккиети. Терапевтик мактаблар. Шарк клиник тиббиетининг намоендалари: Ибн Сино, ар – Розий. Тиббиет деонтологияси. Пропедевтик клиника вазифалари. Беморни текшириш режаси. Касаллик тарихи. Анамнез.

- Терапия фани 18 аср охирларида мужассамланди. (Гленар, Боткин, Захарин.)
- Кончаловский: «Каждый хирург в то же время должен быть хорошим терапевтом, ибо хирургический метод лечения является частью терапии»
- «Propaideo» грек. суз – дастлабки ургатиш.

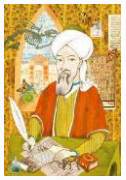
Мамлакатимиз терапевтик мактаблари асосчилари:

1. Слоним М.И.(1892-1945),терапия, физиотерапия
2. Мирочник М.Ф. (1875-1945) терапия, гастроэнтерология

3. Каценович Р.А. (1920-2003) кардиология
3. Аскаров А. А. терапия, гастроэнтерология
5. Йулдашев К.Й. (терапия, кардиология)

Тошкент шифокорлари 1920 йилларда. Марказда профессор - укитувчилар

Шарк клиник тиббиетининг асосий намоендалари:



Тиббиет деонтологияси:

«deontos» - бурч. «logos» - фан.

Шифокор ва хамшира, кичик тиббиет ходими, бемор хамда унинг кавму кариндошлари орасидаги булажак сухбатнинг маданият даражасини таъминловчи фан.

Эвтаназия - (evos – тинч, осойишта, tanatos – улим)

- Беморни уз еки якин кариндошлари истагига мувофик хаетдан куз юмишини тезлаштириш (инкурабел холатларда: политравмалар, онкологик хасталиклар ва х.о.)

Т У Р Л А Р И:

- Пассив(бемор муолажадан очикдан очик еки яширинч равишда бош тортади)
- Актив(тиббий ходимлари томонидан амалга оширилади)

Ички касалликлар пропедевтикаси (ИКП) фанининг максади:

- Талабаларни ички касалликлар клиникасида кенг таркалган хасталикларнинг асосий клиник аломатлари, уларнинг келиб чикиш механизми хамда кулланилиши лозим булган клиник ва лаборатор-инструментал текшириш усулларининг диагностик ахамияти билан таништириш.

Клиник аломатларнинг намоен булиш холатига тугри бахо бера олиш учун замин тайерлаш

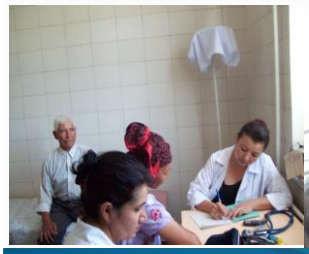
Беморларни текшириш умумий режаси уз ичига камраб олади:

- а) Субъектив (сураб суриштириш – interrogatio: **шикоятлар, хасталик тарихи – anamnesis morbi ва хает тарихи - anamnesis vitae**)
- б) Объектив – st. praesens obiectivus (**куздан кечириш - inspectio, пальпация - palpatio, перкуссия - percussio, аускультация - auscultatio**)
- в) Клиник-лаборатор (кон, сийдик умумий тахлили, биокимевий тахлиллар ва х.о.)
- г) Инструментал (рентгенологик, эндоскопик, томография ва х.о.)

Текшириш асосий усуллари:

1.Субъектив

Compliance (хамкорлик) субъектив усуллар самарадорлиги асосидир



КУШ БАЛЛОНЛИ ЭНТЕРОСКОПИЯ (ХИРОНОРИ ЯМАМАТО, 2004й.)

•Qui bene diagnoscirt, bene curat

Диагноз. Диагностик жараен ва усуллар

«Симптомдан диагнозга»

- Diagnosis (грек. текшириш, аниклаш,фарклаш)
- Qui bene diagnoscirt, bene curat

«Ким аник диагноз куйса, у яхши даволайди» (Герман Бургава)

Диагнозга аниклик киритиш жараени давомида эътибор бериш лозим:

а) Айни хасталикка хос функционал узгаришлар характери ва даражаси

б) Ушбу касалликка хос клиник аломатлар мажмуаси

в) Мазкур касаллик сабаблари

Д И А Г Н О С Т И К А «Qui bene diagnoscirt, bene curat»

Диагностика – анамнестик ва объектив маълумотларга асосланиб касалликни аниклаш. Куйидаги усулларга таянади:

а) Индукция

б) Дедукция

Д И А Г Н О С Т И К А

Диагностик жараен боскичлари:

- 1. Далилларни туплаш
- 2.Аналогия принципини куллаш (конкрет еки абстаркт тажрибага асосланиб)
- 3.Дастлабки диагностик гипотеза
- 4.Ухшаш диагностик гипотезалар билан таккослаш
- 5.Кушимча текшириш усулларини куллаш
- 6.Сунгги диагностик гипотеза

Диагностика

- Диагностик жараен боскичлари таянади:

- а) Клиник мушохада кенглигига
- б) Анамнез йига олиш махоратига
- в) Тупланган маълумотларни бахолашга

ДИАГНОСТИКА

- Diagnosis ex observacione (узок назорат давомида)
- Diagnosis per exclusionem (инкор этиш оркали)
- Diagnosis ex juantibus (синамали даволаш оркали)

Диагностика

- Диагностика илмий жараен булиб уз ичига камраб олади:
- А) Семиотикани; (Г. Мондор: «симптомларни санаб утиш эмас, балки уларни киеслаб билиш зарур»
- Б) Беморларни диагностик текшириш усулларини еки диагностик техникани;
- В) Диагноз назарияси ва усулининг методологик асосларини.

Диагностик жараен схемаси:

- 1. Сураб суриштириш:
- а) шикоятлар
- б) касаллик анамнези
- в) хает анамнези
- 2. Объектив
- 3. Лаборатор
- 4.Инструментал

Текшириш схемаси дедуктивдир. 20 000 ортик касалликлари тури мавжуд. Диагностик жараен вазифаси – ушбу ракамни 1 тага кадар кадар тушириш. Шикоятлар тахлили максади (схеманинг 1-чи боскичи)- кайси тизим (кон айланиш, нафас, хазм ва х.о.) органлари шикастланган. Ушбу кадам учраши мумкин булган хасталикдар сонини анчага камайтиради (2000 га кадар).

Диагностик жараен схемаси:

- Касаллик тарихи тахлилини вазифаси (схеманинг 2-чи боскичи) – мазкур хасталик уткир еки сурункалилигини аниклашдан иборатдир. Бу эса текшириш доирасини янада торайтиради. Мисол, суриштирув хасталикни уткир касалликлар гурухига дохиллигини аниклади. Уткир касалликлар гурухи атиги 200 нозологик бирликдан иборат. Демак, икки кадам билан гумонсираетилган диагнозлар сони 20 000 дан 200 га кадар камайди.

Диагностик хатоликлар сабаби: (Р. Хегглин)

1.Билимсизлик

2. Етарлича текширмаслик:

а) техник имкониятсизлик

б) вакт етишмовчилиги туфайли

в) огир ахволли бемор

3. Тафаккур давомидаги хатоликлар:

а)конструктив тафаккурга эга булмаслик

б)таклиф этилган диагноз хатосиз эканлигига ута ишонч

Диагностик хатоликлар сабаби: (Р. Хегглин)

в) кибр-хаволик, манманлик билан диагноз куйиш

г) мантикан хато хулосалар

д) ута кизик диагнозлар куйишга интилиш

е) пессимизм еки оптимизмга мойиллик

ж) иккиланиш

з) хамкасблар фикрини менсимаслик

Врач хатоликлари тури:

- **Н. И. Краковский ва Ю. Я. Грицман (1959)**
- диагностик;
- даволаш-тактик;
- даволаш-техник;
- ташкилий;
- хужжатлардаги камчиликлар;
- тартибий камчиликлар.

Диагноз классификацияси:

1. Характери хамда мохиятига асосан:

этиологик, патогенетик,нозологик, патологоанатомик,анатомик, патофизиологик

2. Шаклланиш тартиби хамда тасдигига кура:

- тугридан тугри шаклланган диагноз (симптомдан диагнозга), диф. диагноз (киеслашга асосланган), diagnosis ex observacione (узок назорат давомида),
- diagnosis ex juantibus (синамали даволаш оркали)

Диагноз классификацияси:

3. Аникланган муддатига караб:
эрта вактли, кечиктирилган, секцион (аутопсия натижаларига асосланиб)
4. Ишончлик даражасига караб:
тахминий, дастлабки, охирги еки сунгги, мужмал

Асосий диагностик усуллар (субъектив ва объектив):

маълумотларга таяниб диагноз куйилади

Кушимча диагностик усуллар:

1. Клиник-лаборатор: кон, сийдик умумий анализи, биохимиявий анализ ва х.о.

2. Инструментал: рентгенологик, эндоскопик, томографик (компьютерли, мультиспирални, ядроли магнит-резонанс, электрон-нурли, позитрон-эмиссион томографиялар)

Кушимча диагностик усуллар:

Qui bene diagnoscirt, bene curat

20% холларда клиник-лаборатор ва инструментал текшириш усуллари маълумотига асосланиб диагноз куйилади

«Симптомдан синдромга ва ундан кейин эса диагнозга»

ХУЛОСА:
Демак диагноз куйиш жараени
3 боскичдан иборат:
а) симптомларни аниклаш
б) симптомларни синдромга бирлаштириш
в) синдромларга асосланиб диагноз куйиш

«Факат тугри диагноз куйган мутахассисгина, самарали даволайди»

ЭЪТИБОРИНГИЗ УЧУН РАХМАТ !

Lecture №2

Respiratory system. Control methods. Inquiry. Physical examination methods: objective examination methods such as examination, palpation, percussion and auscultation. Primary and secondary respiratory interactions. Additional tests include bronchoscopy, bronchography, and tomography. Check for sputum.

1. Teaching module of lecture technology.

Class time - 2 hours	Number of students: 20 to 60
Training form	Lecture information lesson
Lecture plan	1. 1. Methods of examination of patients with respiratory diseases

	2. 2. Inquiry, main complaints, review 3. 3. palpation and percussion (comparative and topographic). 4. 4. Techniques and rules of lung auscultation. 5. 5. Primary and secondary respiratory noises. 6. 6. The concept of methods of functional-instrumental examination of patients with respiratory diseases.
The purpose of the lecture:	Teaching students inquiry, palpation and percussion.
Teaching style	Lecture interview
Form of teaching	Large, grouped.
Teaching equipment	Textbook, lecture content, projector, computer.
Teaching status	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers.

1.2 Technological map of lectures

Stages and timing of work.	Educator	Learners
Preparatory phase	1. Preparation of curriculum on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
1. Introduction to the topic (15 minutes)	1. Introduces the purpose and function of the topic 2. Asks questions on the topic.	They listen Students answer the questions posed
2 - the main stage 65 minutes)	1. Explains the topic, show slides 2. Uses display posters	They listen They listen
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

Brief description

Cough (dry, wet, duration, time of onset) Sputum secretion - the nature, amount, dependence of sputum secretion on the patient's condition. Bleeding (nose, lungs, nasopharynx, esophagus, stomach), bleeding, duration, diagnostic value. Disorders of nasal breathing. Chest examination, palpation. Chest pain (nature, location, duration, intensity, distribution) Chest examination, palpation. Pathological forms of the chest. Types of asthma (norm and pathology). Chest shape, topographic lines. Topographic percussion. Determining the upper, lower, upper, lower, and lower extremities of the lungs. Changes in the boundaries of the lungs in various physiological and pathological conditions.

Techniques and rules of lung auscultation. Basic (vesicular and bronchial) respiratory noises, mechanism, change: increase and decrease (physiological and pathological) and their diagnostic

significance. medium, large vesicles), localization and distribution, diagnostic value. Examination of sputum and pleural fluid, diagnostic value. The difference between transudate and exudate. Interpretation of the obtained results.

Лекция №2
Мавзу:Нафас тизими хасталиклари бор беморларни текшириш усуллари: сураб-суриштириш, куздан кечириш, пальпация, перкуссия

Текшириш усуллари:

- 1. Субъектив: jnterrogatjo - сураб суриштириш(паспорт кисми, шикоятлар, anamnesis morbi, anamnesis vitae)
- 2. Объектив: inspectio, palpatio, percussio, auscultacio
- 3. Клиник-лаборатор
- 4. Инструментал

Беморларни текширишни асосий боскичлари:

- 1. Куздан кечириш
- 2. Пальпация
- 3. Перкуссия
- 4. Аускультация
- 5. Клиник мушохада еки тафаккурлаш

Асосий шикоятлари:

- 1. Йутал (tussis)
- 2. Балгам (sputum)
- 3. Кон тупириш (haemoptoe)
- 4. Хансираш (dyspnoe)
- 5. Плеврал огрик (dolor)
- 6. Иситма (febris)

Йуталнинг асосий хусусиятлари:
(хаво окими тезлиги 0,5дан токи 50–120 м/сек)

- 1. Келиб чикиш механизми
- 2. Сабаби (нафас йулларининг турли булимларидаги шиллик каватда жойлашган йутал рецепторларини – яллигланиш (бронхит), механик (чанг ва х.о), кимевий (уткир хид, тутун ва х.о.), термик (ута иссик еки совук хаво) омиллар билан таъсирланиши
- 3. Тури: курук еки нам (продуктив еки балгамли)

Балгам хусусиятлари:

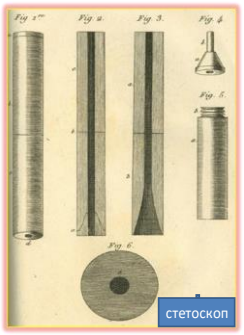
- 1. Микдори
- 2. Консистенцияси (суюк еки куюклиги)
- 3. Ранги, куриниши ва хиди
- 4. Таркиби (кон ва унинг шаклли элементлари («зангсимон» балгам) мавжудлиги)
- 5. Каватлари (уч каватли: юкориси-купикли сероз суюклик, уртаси-лейко- ва эритроцитли суюклик ва пасткиси-йирингли

Р. Лаэннек (1782-1826й)

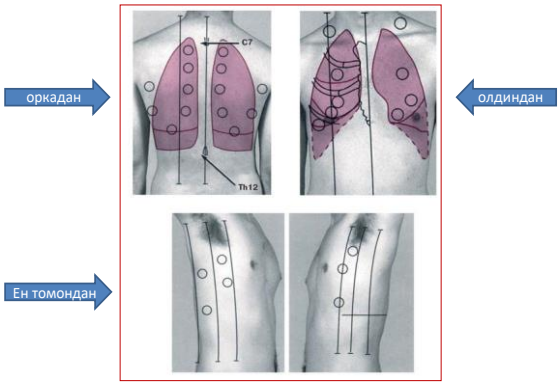
Бевосита аускультация

Утмишда аускультация

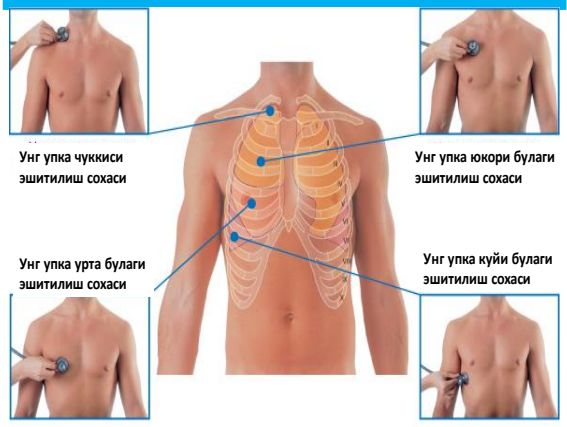
Аускультация техник воситалари:



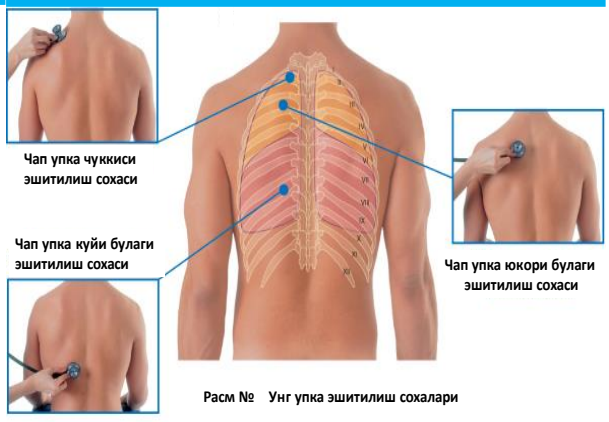
Аускультация тартиби:



Олд томондан



Орка томондан



Расм № Унг упка эшитилиш сохалари

Нормал нафас шовкинлари:

1 – везикуляр (альвеоляр)

2 - бронхиал (ларинготрахеал)

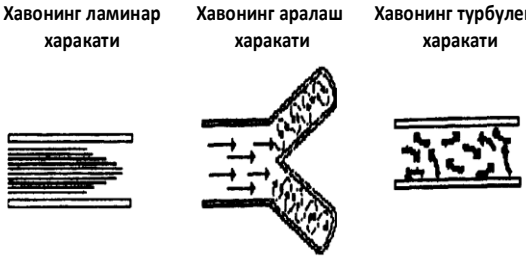
• Лаэннек томонидан таклиф этилган

Нафас шовкинларининг замонавий классификацияси

Тубуляр (Трахеал – бронхиал) Бронховезикуляр Везикуляр

Расм № Нафас шовкинларининг замонавий классификацияси

Хаво харакати турлари



Расм № Хаво харакати турлари

Везикуляр нафас шовкини

«Ф» харфи талафузидаги товушни эслатади ва упканинг куйи сохаларида (альвеоляр тукима тараккий килган) яккол эшитилади.

Везикуляр нафас шовкинининг асосий хусусиятлари:

1 – у юмшок ва бугик(график манзараси)
2 – унга киска экспиратор фаза хос (экспиратор фазанинг сунгги икки кисмида эшитилмайди. Инспиратив ва экспиратив компонентлари нисбати 3:1)
3 – нафас олиш ва чикариш орасида пауза йук

Везикуляр нафас шовкинини нормада узгаришлари:

Кучайиши:
- А) астеникларда
- Б) еш угил болаларда - пуэрил нафас деб номланади (puer – угил бола)
- В) огир жисмоний мехнат

Сусайиши:
- А) семиз кишиларда (тери ости ег катламини бехад тараккий этиши туфайли)
- Б) спортчиларда (боди билдинг)

Везикуляр нафас шовкининг кукрак кафасида яккол эшитили сохалари

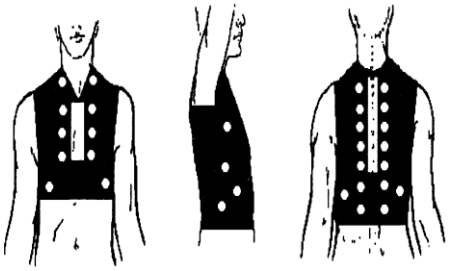


Рис. 14.6. Приводится с изменениями из: *Lehrer S.: Understanding Lung Sounds. Philadelphia, W.B. Saunders, 1984*

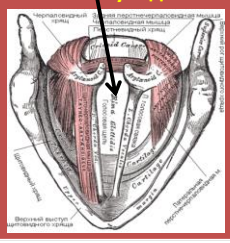
Везикуляр нафас шовкинини патологияда узгариши

Кучайиши:
а) дагал везикуляр нафас шовкини
б) саккодирлашган везикуляр нафас шовкини

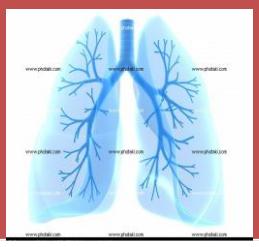
Сусайиш сабаблари:
а) альвеоляр (альвеолалар сони камайиши, деворини элатиклик даражасини пасайиши
б) экстраальвеоляр (бронх диаметрини торайиши, миозит, невральгия)

Бронхиал нафас шовкини

- Овоз бойламаси еригидан хаво утиши натижасида пайдо булади



- «Х» харфи талафузидаги товушни эслатади ва нафас чикиши фазасида кучли эшитилади



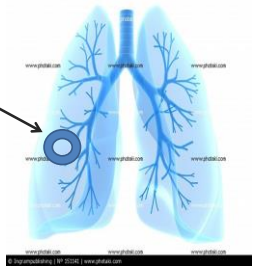
Бронхиал нафас шовкини хусусиятлари:

1. Баланд (график манзараси йугон инспиратор ва экспиратор чизиклар билан чизилади)
2. Экспиратор фазаси чузик ва давомийлиги билан, одатан, инспиратор фазага тенг (нисбати 1:1)
3. Бронхиал шовкин эшитилмаган чогда, нафас олиш ва чикариш орасида пауза булади

Бронхиал нафас шовкинини нормада эшитилиш нукталари

Бронхиал нафас шовкинини патологик турлари:

1 – амфорик (amfora – куза). Упкада диаметри камида 5-6 см ли хаволи бушлик ва у суюкликсиз хамда бронх билан боглик булиши шарт



Бронхиал нафас шовкинини патологик турлари:

2 – металлик (очик пневмотораксда)

3 – стенотик (бронхитларда)

4 – везикобронхиал (нафас олишда везикуляр, чикаришда эса бронхиал шовкин эшитилади, мисол крупоз пневмонияда)

Везикуляр ва бронхиал нафас шовкинларининг фарки:

Мезонлар:	Нормал нафас шовкинлар	
	Везикуляр	Бронхиал
1. Келиб чикиш механизми	Альвеолалар девор тебраниши	Овоз бойламлари тор еригидан хавони утиши
2. Эшитилиши нафаснинг кайси фазасига боглик	Инспиратор	Экспиратор
3. Эшитилиш сохаси	Упканинг куйи кисми	Упканинг юкори кисми
4. Шовкин ухшайди:	«Ф» харфи талафузидаги товушга	«Х» харфи талафузидаги товушга

Патологик нафас шовкинлари

1 – хириллашлар (ronchi)

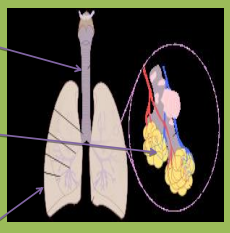
ЖАРОХАТ БРОНХЛАРДА

2 – крепитация (crepitacia)

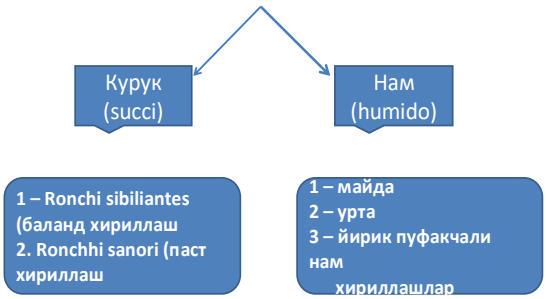
ЖАРОХАТ АЛЬВЕОЛАЛАРДА

3 – плевра ишкаланиш шовкини

ЖАРОХАТ ПЛЕВРА ВАРАКЛАРИДА



Хириллашлар тури:



Патологик нафас шовкинларининг алохида турлари

1 – чайкалиш шовкини (илк бор Гиппократ томонидан таклиф этилган) – succusio Hippocratica

2 – томаетган томчи шовкини – gutta cadens

Крепитациянинг график манзараси

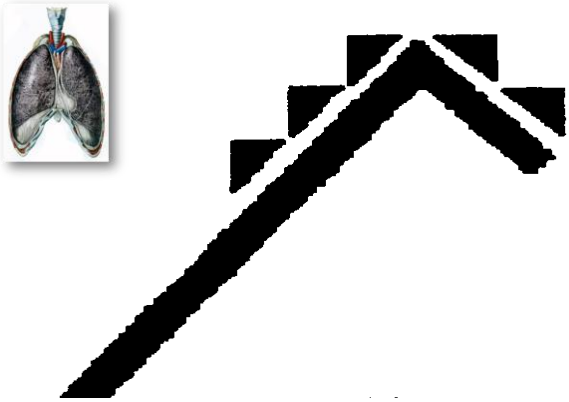
Крепитация ва нам хириллашлар дифференциацияси

Нам хириллашлар	Крепитация
• Йирик ва дагал	• Майда ва юмшок
• Паст частотали	• Юкори частотали
• Сийрак	• Гужжа
• Зурикишга боглик эмас	• Зурикишга боглик
• Гавда холати узгаришида узгармайди	• Гавда холати узгариши билан узгаради
• Йутал пайтида йуколади	• Йутал пайтида йуколмайди
• Огиз бушлигига кадар таркалади	• Огиз бушлигига кадар таркалмайди
• Обструкция билан боглиг	• Рестрикция билан боглик

Курук хуштаксимон хириллашлар билан кечадиган клиник холатлар

- Инфекция (коклюш, ларингит, трахеобронхит)
- Ларинго-, трахео- еки брохомяляция
- Трахея ва хикилдок усмаси
- Трахея стенози
- Овоз бойламалари фаолияти бузилиши
- Ет жисмлар аспирацияси
- Йирик хаво йуллари стенози
- Упка сурункали обструктив касаллиги
- Бронхорея (бронхитда, муковисцидозда)
- Облитерацияловчи брохиолит
- Фиброзловчи альвеолит (Хамман – Рич касаллиги)
- Пневмонит (ута сезгирлик натижасида)
- Упка шиши
- Согломларда кучли нафас чикариш пайтида

Плевра ишкаланиш шовкинининг график манзараси



Плевра ишкаланиш шовкинининг физик хусусияти

Утказувчанлик туфайли содир буладиган овоз шовкинлари

Бронхофония – (грек. бронх шовкини) бу овознинг соф шовкини. Бронх ва хикилдокдан узокда бемор гапиретган пайтда эшитилади. Сузлар ноаник, шунинг учун хам шовкин сифатида эшитилади.

Пекторилоквия – (лотин. овоз кукракда) бронхофонияни кучайган тури, бунда кукракда талаффуз сузлари аник эшитилади.

Эгофония – (грек. эчки товуши) кукракда эчки маърашидаги ухшаш товуш эшитилади (аіх – эчки). Лаэннек дастлаб аниклаган.

Ушбу феноменлар заминида упка тукимасини зичлашув синдроми етади.

Эътиборларингиз учун рахмат!

Lecture №3

Basic clinical syndromes. Pulmonary tissue condensation syndrome. Pulmonary cavity syndrome. Air and fluid accumulation syndrome in the pleural cavity. Bronchospasm syndrome.

1. Teaching module of lecture technology.

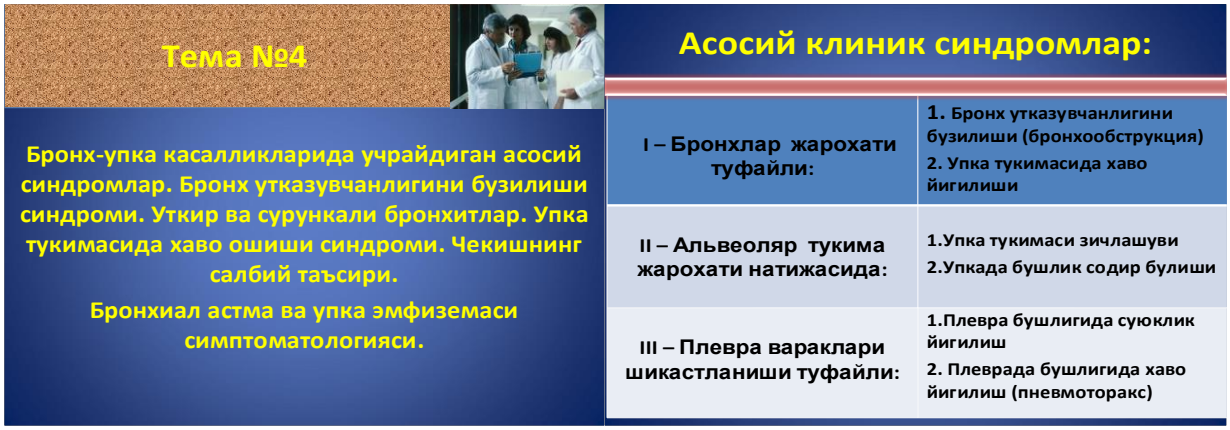
Class time - 2 hours	Number of students: 20 to 60
Training form	Lecture information lesson
Lecture plan	1. The main syndromes that occur in patients with respiratory diseases. 2. The pathogenesis of bronchial obstruction syndrome. 3. Diagnosis of acute and chronic bronchitis. 4. The pathogenesis of airway obstruction syndrome in lung tissue. 5. Adverse effects and pathogenesis of smoking on the respiratory system. 6. Symptomatology of bronchial asthma and pulmonary emphysema.
The purpose of the lecture:	To teach students the basic syndromes that occur in patients with respiratory diseases.
Teaching style	Lecture interview
Form of teaching	Large, grouped.
Teaching equipment	Textbook, lecture content, projector, computer.
Teaching status	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers.

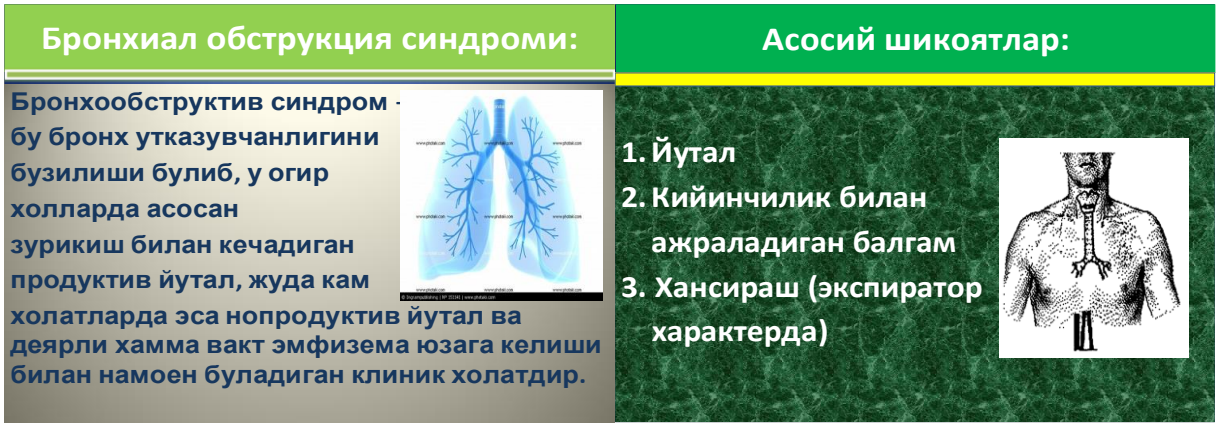
1.2 Technological map of lectures

Stages and timing of work.	Educator	Learners
Preparatory phase	1. Preparation of curriculum on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
1. Introduction to the topic (15 minutes)	1. Introduces the purpose and function of the topic 2. Asks questions on the topic.	They listen Students answer the questions posed
2 - the main stage 65 minutes)	1. Explains the topic, showing slides 2. Uses posters	They listen They listen
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

Brief description

Symptoms of acute and chronic bronchitis, the role of the profession in its development. Examination of patients with obstructive pulmonary disease: complaints, examination. palpation, percussion, auscultation. Adverse effects and pathogenesis of smoking on the respiratory organs. Symptomatology of bronchial asthma and pulmonary emphysema.





Inspectio:

Диккатга сазовор узгаришлар:

•1. Лабларни бир-бирига якинлаш-
• тириб нафас чикаради

•2. Хансираш (тинч холатда)
•3. Эмфизематоз кукрак кафаси
•4. Акроцианоз ва цианоз
•5. Гиппократ бармоклари
•(барабан таекчалари)
•

Физикал текшириш натижалари:

№	Физикал усуллар		Брохообструкция синдроми
1.	Пальпаци		Овоз дириллаши хар иккала томондан упканинг куйи чегараларида суст хис этилади.
2.	Перкуссия		Упка куйи чегараларида кутичасимон товуш эшитилади. Куйи чегараси экскурсияси чегараланган.
3.	Аускуль-я		Везикуляр нафас шовкини куйи чегараларда сусайган, курук (хуштаксимон) ва нам (турли калибрдаги) хириллашлар эшитилади

Уткир ва сурункали брохитлар

Уткир бронхит (УБ) – бу бронхлар шиллик каватини уткир диффуз яллигланиш хасталиги булиб хисобланади. Хар 1000 кишига 10-25 УБ холат тугри келади (Шишкин А.Н. 2000й). Эпидемиологик вазиятларда (грипп ва х.о.) касалланиш даражаси 2-3 марта ортиб кетади. Одатан, УБ инфекцион этиолгияли ва уткир вирусли респиратор касалликлар заминида юзага келади.

Уткир бронхит сабаблари

Инфекция турлари:

1 - вируслар: грипп, парагрипп, аденовируслар, респиратор-синцитиал, кизамик, коклюш ва х.о.
2 - бактериялар: стафилококк, стрептококк, пневмококк ва х.о.
3 – замбуруглар
4 – риккетсиялар

Юзага келтирувчи омиллар:

1 – физик ва химик омиллар: (курук, совук, иссик хаво, азот оксиди, водород сульфид ва х.о.)
2 – тез-тез совук котиш, тамаки чекиш, спиртли ичимликлар танновул килиш
3 – назофарингеал сохани сурункали инфекцияси, бурун оркали нафас олишнинг бузилиши
4 – кукрак кафаси деформацияси.

Инфекция кириш йуллари:

1 – бронхоген (асосий йул)
2 – гематоген
3 – лимфоген

Бронхиал дарахтнинг уткир яллигланиши, одатан бронхообструкция синдроми билан кечади. Бунга бронх шиллик каватининг шиши еки брохоспазм сабаб булади. Шиллик каватнинг гиперемияси ва шиши, бронх девори ва бушлигида шилликли, шиллик-йирингли еки йирингли секрет хосил булади. Киприкли эпителий дегенерацияси кузатилади. Огир холатларда жараен нафакат шиллик, балки шиллик ости ва бронх деворининг бошка каватларига хам таркалади.

Классификация (А.Н. Шишкин, 2000й)

+ Бирламчи ва иккиламчи УБ
+ Хасталанган бронх калибрига караб:
  а) трахеобронхит б) бронхит (урта бронх) в)бронхиолит
+ Кечишига караб:
  а) енгил б) урта в) огир
+ Бронхообструкция даражасига караб:
  а) обструктив б) нообструктив

Асосий клиник симптомлари:

1. Овоз хиралашуви, ютинишда томокда огрик, туш ортида тирналиш ва безовта килувчи курук йутал (уткир респиратор вирусли инфекция окибатида)
2. Курук йутал (асосий симптом)
3. Кукрак кафаси пастки сохаларида кучли йутал пайтида огрик

Физикал текшириш усуллари информацияси саез. Лаборатор ва инструментал текшириш натижалари носпецифик.

Сурункали бронхит

Сурункали бронхит (СБ) – бронх шиллик каватининг сурункали диффуз яллигланиши булиб, бронх деворининг деструктуризацияси, гиперсекрецияси ва дренаж фаолиятининг бузилиши кузатилади.

Хавфли омиллар: тамаки чекиш, атмосфера хавосини ифлосланиши (ишлаб чикариш чикиндилари билан), бурун оркали нафас олишни бузилиши, наслий мойиллик

Этиология ва патогенези

1 – инфекция(вирус,бактерия,замбуруглар ва х.о.)

2 – химиявий (асбест, гипс, цемент, пахта чанги)

3 – физик (иклим нами, ута иссик еки совук хаво)

Мазкур омиллар йигиндиси олиб келади:

1.Бронх девори деструктиризациясига

2. Бронхиал шиллик микдорини ошишига ва унинг реологик хусусиятларини бузилишига

3. Бронх дренаж фаолиятини пасайишига

СБ – беморда сунгги 2 йилда хар йили камида 3 ой продуктив йутал кузатилса

Классификация: оддий (асоратланмаган) ва обструктив (асоратланган) СБ

Асосий клиник симптомлари:

1 – йутал, 2 – балгам ва 3 – хансираш

Кечишига караб СБ булинади:

А) енгил (тулик экспирация хажми (ОФВ) 70%

Б) урта (ОФВ 50-60%)

В) огир (ОФВ < 50%)

СБ физикал текшириш натижалари:

1	Куздан кечириш		Эмфизематоз(бочкасимон)кукрак
1.	Пальпаци		Овоз дириллаши хар иккала томондан упканинг куйи чегараларида суст хис этилади.
2.	Перкуссия		Упка куйи чегараларида кутичасимон товуш эшитилади. Куйи чегараси пасайган ва экскурсияси чегараланган.
3.	Аускуль-я		Везикуляр нафас шовкини куйи чегараларда сусайган, курук (хуштаксимон) ва нам (турли калибрдаги) хириллашлар

Лаборатор ва инструментал текшириш натижалари:

Лаборатор текшириш натижалари жуда хос эмас. Рентгеноскопия ва рентгенограф

эмфиза ва пневмосклероз аломатл

Брохографияда – жарохат характери аникланади

Спирографияда – обструкция даражасининг функционал курсатгичлари аникла

Бронхоскопияда – шиллик кават хо

визуал бахоланади ва биопсия оли

Упка тукимасида хаво ошиши синдроми (эмфизема)

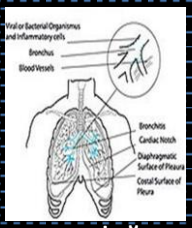
Альвеолалар девори эластиклигини сусайиши ва шу туфайли альвеоланинг кенгайиши билан кечадиган клиник холат. Тафовут этилади: бирламчи (мустакил) ва иккиламчи (СБ, бронхиал астма асорати) турлари мавжуд. Шунингдек, локал (регионал) хамда диффуз.

Морфологиясига караб:

а) панацинар(панлобуляр), б) центриацинар (центрилобуляр), в) периацинар г) иррегуляр (чандикли) д) буллез

Сабаблари:

1 – ирсий омиллар (альфа – 1 – антитрипсин еки альфа – 2 – макроглобулин ингибиторлари дефицити)



2 – яллигланиш жараенлари ва уларни бронх деворидан ацинус марказига таркалиши

3 – бронхларни кайтмас обструкцияси туфайли альвеолалар ичра босимни ортиши

Бронхиал астма

Бронхиал астма (БА) – бронхларнинг сурункали яллигланиши булиб, специфик иммунологик еки носпецифик ноиммунологик механизмлар таъсирида уларда гиперреактивлик хусусияти тараккий килиб, тусатдан юзага келадиган хансираш хуружи билан намоен булади.

Таркалиш даражаси 4-10% ни популяцияда ташкил этади.

Этиология ва патогенези

Турли аллергенларнинг (А) хаво йулларига тушиши сабаб булади. А булинади: 1)экзоген ва 2)эндогенларга. Экзогенларга киради: усимлик чанги, чанг ва хид, овкат махсулотлари(клубника, шоколад, тухум), уй чанги. Ушбу А таъсирида юзага келадиган БА экзоген еки атопик деб номланади. Эндоген омиллар туфайли юзага келадиган БА эндоген еки топик деб номланади. Мисол:

«аспиринли» БА, хомиладордаги БА, психоген БА,

зурикишдаги БА, гиперэозинофилли БА.

Патогенезида бронхларнинг сурункали

Этиология ва патогенези

Сенсибилизацияга учраган организм А билан такрор контактда булса турли биологик фаол моддалар вужудга келади жумладан: гистамин, анафилаксиянинг эозинофилли ва нейтрофилли хемотаксик омиллари. Айни пайтда таркибида лейкотриен мавжуд анафилаксиянинг секин таъсир этувчи субстанцияси хам хосил булади. Лейкотриен гистамин катори кучли бронхоспастик таъсирга эга. Бронхоспастик реакция фазалари: 1) кон томирлар утказувчанлиги ошади ва шиллик кават шиши вужудга келади 2) хемотаксик омиллар(лейкотриенлар, тромбоксанлар)

Классификация:

1 – фаза: интермиттирловчи еки узгарувчан астма. Хуруж хафтада 1 марта, тунгиси ойда 2 марта.

2 – фаза: персистирловчи енгил еки доимий астма. Хуруж хафтада 1 мартадан ортик, тунгиси ойда 2 мартадан куп.

3 – фаза: персистирловчи урта огирликдаги астма. Хуруж хар кун, тунгуси хам хар кун.

4 – фаза: мураккаб персистирловчи астма. Хуруж кунига бир неча марта, тунгиси

Клиникаси:

1) Нафас бугилиши хуружи(тусатдан юзага келади)

2) Йутал (кетма – кет юзага келади)

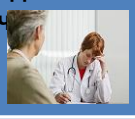
3) Кийинлик билан ажраладиган балгам (шишасимон,

е

Астматик статус (АС):

Хуруж 24 соат ва ундан ортик вакт давом этса хамда конвенционал(2,4% -10,0мл эуфиллин еки 1кг вазнга 0,5мг преднизолон эритмалари вена ичига юборилса)муолажа ердамида бартараф булмаса АС деб тан олинади. Боскичлари: 1 – нисбий компенсация, 2 – тотал обструкция («гунг» упка) ва 3 – гипоксемик кома.

Физикал текшириш натижалари:

1	Куздан кеч 	Мажбурий холат, бемор утирган. Нафас шовкинли.Эмфизематоз(бочкасимон)
1.	Пальпация	Овоз дириллаши хар иккала томондан упканинг куйи чегараларида суст хис этилади.
2.	Перкуссия	Упка куйи чегараларида кутичасимон товуш эшитилади. Куйи чегараси пасайган ва
3.	Аускуль-я	Везикуляр нафас шовкини сусайган якка холларда курук (хуштаксимон) хириллашлар эшитилади.

Кушимча текшириш усуллари:

1. Лаборатор: а)кон умумий анализи (эозинфилия), кузиш даврида лейкоцитоз ва ЭЧТ ошган б) балгамда Куршман спирали, Шарко-Лейден кристаллари
2. Пикфлоуметрия – нафас чикариш тезлигини аниклаш (пиковая скорость выдоха – ПСВ)
3. Нафас ташки функцияларини текшириш (ПСВ, обьем форсированного выдоха – ОФВ)

Эътиборингиз учун рахмат!

Lecture №4

Cardiovascular system. Control methods. Inquiry. Review. Palpation, percussion and auscultation. Heart tones are the norm and pathology. Noises.

1. Teaching module of lecture technology..

Class time - 2 hours	Number of students: 20 to 80
Training form	Lecture information lesson
Lecture plan	1. 1. Methods of examination of patients with cardiovascular disease. 2. 2. Inquiry, review. 3. 3. Palpation and percussion of the heart area
The purpose of the lecture:	To teach students how to examine patients with cardiovascular disease.
Teaching style	Lecture interview
Form of teaching	Large, grouped.
Teaching equipment	Textbook, lecture content, projector, computer.
Teaching status	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers.

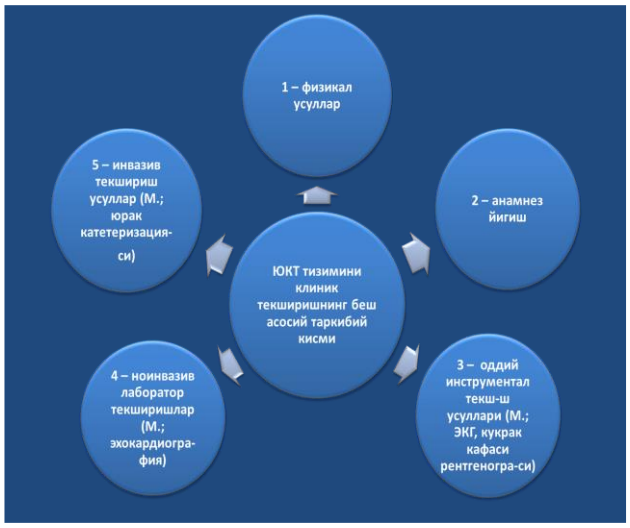
1.2 Technological map of lectures

Stages and	Educator	Learners

timing of work.		
Preparatory phase	1. Preparation of curriculum on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
1. Introduction to the topic (15 minutes)	1. Introduces the purpose and function of the topic 2. Asks questions on the topic.	They listen Students answer the questions posed
2 - the main stage 65 minutes)	1. Explains the topic, showing slides 2. Uses posters	They listen They listen
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

Brief description

Inquiry. The main complaints, their pathogenesis. Pain in the heart area, the mechanism of pain formation, localization, nature, duration, irradiation, intensity distribution, nocturnal shortness of breath, pain reduction, disappearance, mechanism of occurrence, intensity. Cardiac asthma. Heart rate: persistence, aggression, intensity, duration, dependence on excitement, stress, mood swings, food. Feeling of discomfort in the heart, pulsation in various parts of the body. Cough, hemorrhage, mechanism of occurrence, diagnostic value. Review. Body structure. The state of consciousness. Skin color, redness, whitening, bruising. The difference between cardiac cyanosis and pulmonary cyanosis. Mechanism of localization, localization, diagnostic value, differences from renal tumors. Examination of peripheral arteries of the heart. Palpation of the heart. Techniques and rules of cardiac percussion. Relative heart rate. Changes in heart rate in pathology: in diseases of the respiratory system and heart, vascular disease, changes in body position.


ЮКТ тизимини клиник текширишнинг беш асосий таркибий кисми
1 – физикал усуллар
2 – анамнез йигиш
3 – оддий инструментал текш-ш усуллари (М.; ЭКГ, кукрак кафаси рентгеногра-си)
4 – ноинвазив лаборатор текширишлар (М.; эхокардиогра-фия)
5 – инвазив текшириш усуллар (М.; юрак катетеризация-си)


Физикал текшириш усулларини куллаш жараенида куйидаги беш таркибий кисмга алохида эътибор бериш лозим. Чунки аник диагноз куйишда бешаласи худди беш бармокдек зарур.
1 – беморнинг ташки киефаси (куздан кечириш)
2 - артериал пульс (пальпация)
3 – марказий веноз босим ва буйинтурук венаси (БВ) пульсацияси (куздан кечириш)
4 – юрак сохасини текшириш (куздан кечириш, пальпация ва перкуссия)
5 – аускультация («... ЮКТ аускультацияси физикал текшириш усулларининг кироличасидир» Сальваторе Манджони)

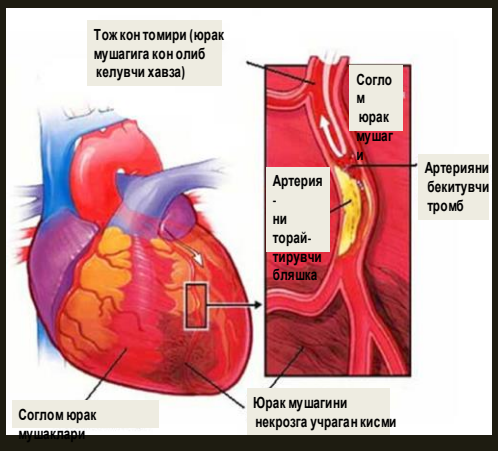

ЮКТ беморларининг асосий шикоятлари:
1.Огрик а) ишемик б) кардиальгия-лар (ишемик огрикдан бошка турлари)
2. АКБ узгаришлари (анамнезга мувофик)
3. Хансираш
4. Шишлар
5. Никтурия
6. Йутал ва
кон тупири
7. Юрак тепиши ва тухтаб уриши
8.Худдан кетиш холлари
9. Тез чарчаш
10. Унг ковурга ейи сохасида огрик ва огирлик хиссиети


Кон айланиши бузилиши билан боглик шикоятлар
а) упкада: хансираш, йутал ва кон тупириш
б) бош мияда: бош огриги, бош айланиши, куз олди коронгилашув и
в) корин бушлигида: коринда огрик, кунгил айниши, кусиш, метеоризм
г) оекларда: огрик, уюшиш, кучсизлик ва томир тортишуви

Ангиноз огрик (АО) сабаблари:

1 – коронороген (коронаросклероз, тромбоз, тож кон томирлари эмболияси, коронарит, коронароспазм);

2 – нокоронароген (анемиялар, аортал нуксонлар, энзимопатиялар – цитохром 450 ферменти тизимида);



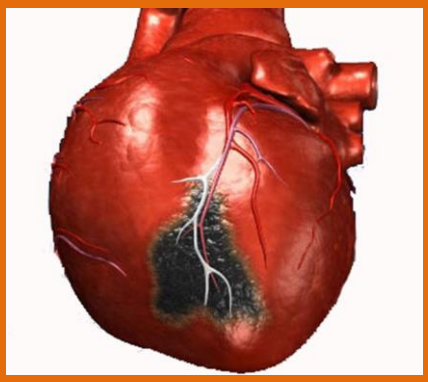
Давомийлигига караб АОбулинади:

1 – стенокардияга хос (давомийлиги 15 минутга кадар)

2 – инфарктга хос (давомийлиги 15 минутдан ортик: соатлаб, суткал

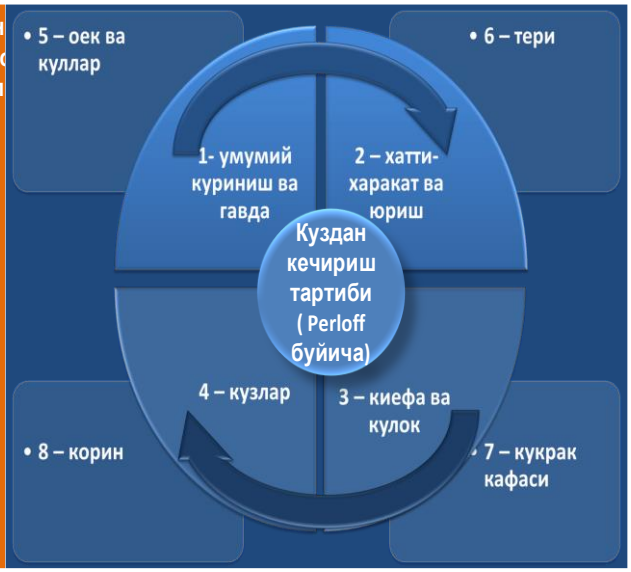
Расм 1 Ангиноз огрик: стенокардияда (А) ва миокард инфарктида (Б);

ЮКТ хасталикларида хансираш инспиратор характерга эга булиб, куйидаги : енгил (I), урта (II) ва огир (III) даражаларга булинади ва одат тусига кириб колган (I), енгил (II) жисмоний зурикишларни бажараетганда ва тинч холатда (III) кузатилади.



Шишлар (oedema) юрак етишмовчилиги билан асоратланган хасталигини мухим аломати булиб хисобланади хамда а)ло (регионал) ва б)генерализациялашган (таркок) турларга бул

Расм 2 Локал (А) ва таркок (Б) шишлар



ЮКТ беморларини умумий куздан кечиришнинг узига хос хусусиятлари:

Ортопноэ – мажбурий утириш еки бош остини баланд килган холда етиш

Цианоз: тери, бармоклар, бурун кирраси, лаблар, кулокларни кукимтир тус олиши

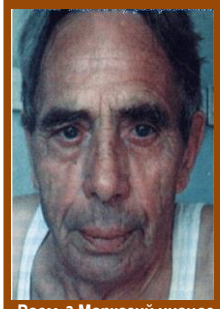
Липидлар алмаш-ви бузил. туфайли оч-сарик тусли холестерин тугунчалари - ксантелазмалар ковок териларида пайдо булади

Оеклар (энг аввало болдир ва товонларни) шиши – катта кон айланиш доирасида кон димланишига хос аломат

Тана терисида, оек ва кул бармокларининг ташки юзаларида сарик каттик тузилмалар – ксантомалар пайдо булади

Кул ва оек бармоклари барабан таекчаларига ухшаб колиши – тугма кук нуксонларда ва инфекцион эндокардитларда учрайди

Келиб чикишига караб цианоз булинади:



Расм 3 Марказий цианоз

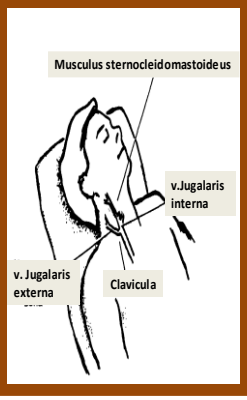
1. Марказий цианоз – а) нафас етишмовчилиги ; б) артериал ва веноз конни аралашуви туфайли юзага келадиган артериал кон гипоксияси сабабли

2. Периферик цианоз – а) кон айланишини етишмовчилиги; б) кон айланишини махаллий бузилиши туфайли кон харакатини сусайиши ва тукималарни керагидан ортик кислородни истеъмол килиши

Умумий куздан кечиришнинг диккатга сазовор холатлари:

«Для решения многих клинических задач следует проводить анализ яремного венного пульса по давлению и формы, ибо трудно найти более информативный физикальный признак» (Поль Вуд. Болезни сердца и системы кровообращения. Филадельфия, Дж. Б. Липпинкотт, 1956г)

Расм 4 Веноз пульснинг анатомик ориентирлари

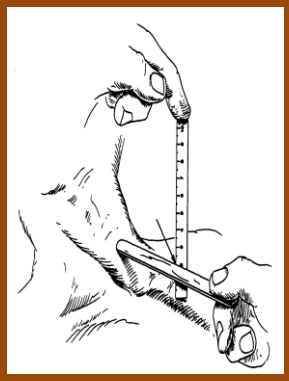


Веноз ва артериал пульснинг визуал фарки

Веноз PS:	Артериал PS:
а)пульс тулкини ичкарига йуналган	а) пульс тулкини ташкарига йуналган
б) бир циклда иккита чукки	б) бир циклда бирта чекки
в) корин босилганда узгаради	в) корин босилганда узгармайди
г) баъзан кулокка (мочки) таркалади	г) кулокка (мочки) таркалмайди

Марказий веноз босимни улчаш техникаси

1. Ички буйинтурук венаси (ИБВ) ва унинг пульсацияси яккол кузга ташланиши учун беморга дастлаб ушбу учун хос холат таклиф этилади (Расм 5)
2. ИБВ пульсациясининг энг баланд нуктаси аникланади. Ушбу, одатан нафас олиш актида намоен булади
3. Тушдаги – Луи бурчаги топилиши лозим (тушнинг дастаси ва танаси бириккан жойда)
4. Луи бурчаги ва ИБВ пульсациясининг чуккиси орасидаги масофа см. вертикал холатда улчанилади. Ушбу масофа буйинтурук венасидаги



Расм 5 Марказий веноз босимни улчаш

ЮКТ беморларини махаллий куздан кечиришдаги узига аломатлари:

ЮКТ физиологияси ва патологиясига хос пальпатор феноменлар

Физиологияда:

1. Чукки зарби (одатан уни пациентларнинг ⅓ аниклаш душвор)
2. PSни аниклаш

1. Чукки зарби
2. Юрак зарби
3. «Мушук хириллаши»
4. Эпигастрал пульсация
5. «Икки тукмокча» симптоми

Патологияда:

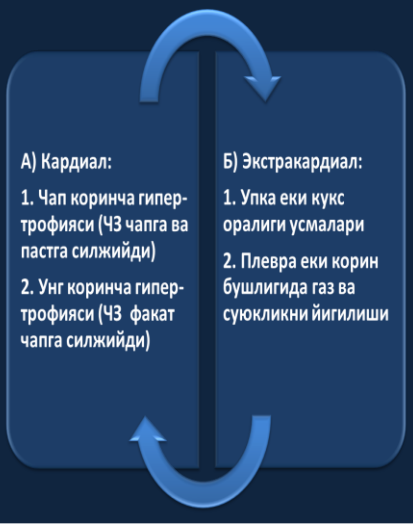
«Пальпаторная оценка сердечного толчка остается важной частью следования сердца даже в наш электронный век» (Сальваторе Манджон

Чукки зарбининг (ЧЗ) нормал хусусиятлари:

1. Кенглиги – кукрак кафасининг ЧЗ ларзага келирадиган майдони (N=1-2см)
2. Баландлиги – кукрак кафасининг ЧЗ юзага келтирадиган тебраниши
3. Кучи (резистентлиги) – ЧЗ нинг пайпасловчи бармокларга курсатган босими

В вышедшей в 1628 году «De Motu Cordis» Гарвей писал «Сердце восстает и
поднимается вверх к некой точке так, что в этот момент ударяет изнутри по

ЧЗ нинг силжиш сабаблари



А) Кардиал:

1. Чап коринча гипертрофияси (ЧЗ чапга ва пастга силжийди)
2. Унг коринча гипертрофияси (ЧЗ факат чапга силжийди)

Б) Экстракардиал:

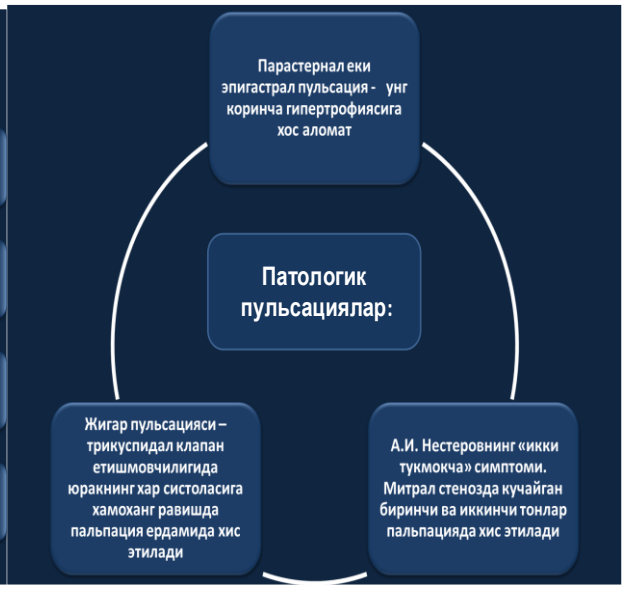
1. Упка еки кукс оралиги усмалари
2. Плевра еки корин бушлигида газ ва суюкликни йигилиши

Юрак сохасидаги патологик пульсациялар:

1. Юрак зарби (у юрак камералари, айникса унг коринча кискариши туфайли юзага келади)
   - Нормада юрак зарби куринмайди еки озгин кишиларда (ковургалараро масофа кенглиги сабабли) кузга зурга илинади
   - Унг коринча гипертрофиясларида кузга яккол ташланади, чунки у ушбу коринча систоласи билан чамбарчарс боглик
2. «Мушук хириллаши» – кукрак кафасининг чегараланган сохасини титроки. Систолик ва диастолик турлари мавжуд
   - Систолик титраш митрал регургитация ва аортал стенозда учрайди
   - Диастолик титраш эса митрал стенозда юрак чуккисида аникланади

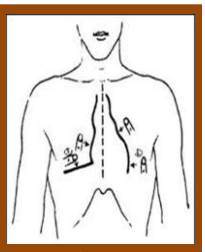
Патологик пульсациялар:

- **Иккилан-ган ЧЗ** — Гипертрофик обструктив кардиомиопатияга дучор булган айрим беморларда учрайди
- **Чузик ЧЗ** — Узок муддат давом этувчи тизимли артериал гипертензияда учрайди
- **Пресисто-лик зарба** — Юрак 4 тонининг пальпатор эквиваленти
- **Эрта диастолик зарба** — Юрак 3 тонининг пальпатор эквиваленти



Юрак перкуссияси

Расм 6 Юрак бусага перкуссияси Плещь-Гольдшайер усулида



Расм 7 Юрак тумтокли-гини перкуссиясида бар. мок плессиметр сохаси

Тугри бажарилган перкуссия (П) ханузгача уз клиник ахамиятини йукотмаган. Амалда юрак сохаси П. орган чегараларини 1 см хато билан аниклашга имкон беради. Аммо, П. усулини мохирона эгаллашдаги душворлик ва кукрак кафаси органларини рентгеноскопияси имконияти тулаконли эканлигини инобатга олиб, эътироф этиш мумкинки, юрак П. каби физикал усул урнини секинлик билан техник воситалар эгаллай бошлади.

Перкуссия техникаси ва юракнинг кукрак кафаси олдинги деворидаги конфигурацияси

Расм 8. Нормал (А), митрал (Б) ва аортал (В) юрак конфигурациялари

Lecture №5

The concept of ECG, FKG and ExoKG. ECG changes in cardiac hypertrophy. ECG changes in acute myocardial infarction. Arrhythmias. The concept of cardiac fibrillation. Acute rheumatic fever. Heart defects. Mitral foramen narrowing. Mitral and aortic heart defects.

1. Teaching module of lecture technology.

Class time - 2 hours	Studentlar soni: 20 dan 60 gacha
Training form	Lecture information lesson
Lecture plan	1. 1. Symptomatology of rheumatism and primary rheumatic heart disease. 2. 2. Diagnosis of acquired heart defects (mitral and aortic). 3. 3. Acute and chronic heart failure syndrome. 4. Left ventricular failure.
The purpose of the lecture:	Students will be taught the symptoms of rheumatism and primary rheumatic heart disease, diagnosis of acquired heart defects (mitral and aortic). acute and chronic heart failure syndrome, left ventricular failure.
Teaching style	Lecture interview

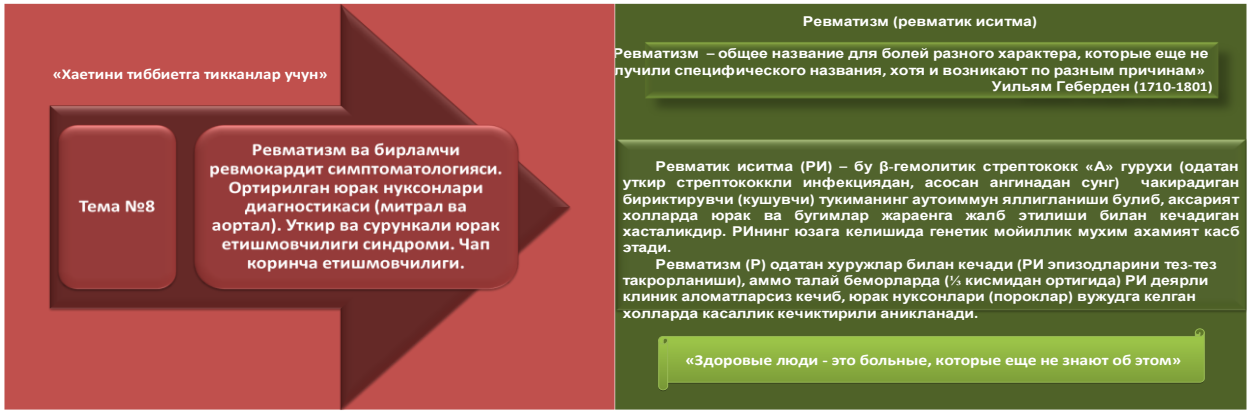
Form of teaching	Large, grouped.
Teaching equipment	Textbook, lecture content, projector, computer.
Teaching status	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers.

1.2 Technological map of lectures

Stages and timing of work.	Educator	Learners
Preparatory phase	1. Preparation of curriculum on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
1. Introduction to the topic (15 minutes)	1. Introduces the purpose and function of the topic 2. Asks questions on the topic.	They listen Students answer the questions posed
2 - the main stage 65 minutes)	1. Explains the topic, showing slides 2. Uses posters	They listen They listen
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

Brief description

Heart defects. Etiology, pathogenesis of acquired heart defects. Mitral valve insufficiency (hemodynamics, symptoms, complaints, examination, palpation, percussion, auscultation). Mitral stenosis. Hemodynamics, complaints, examination, palpation, percussion, auscultation. Complaints of ECG, FCG, and EXOKG changes in mitral regurgitation. Acute and chronic heart failure: examination, palpation, percussion, auscultation, ECG, ECG, FCG). Clinical manifestations (asthma, diagnosis of lung cancer, emergency care). Stages of chronic heart failure (compensated and decompensated). Symptomatology of heart failure, compensation mechanism. Aortic valve insufficiency. Hemodynamics. Hemodynamics, symptomatology of aortic stenosis.



В.А. Насонова фикрича Р – бу унга мойилиги булган (7-15 еш) стрептококкли инфекция таъсирида бириктирувчи (кушувчи) тукимада юзага келадиган системали касаллик булиб, патологик жараен асосан юракда (ревмокардит) локализацияланади.

Ушбу фикр Р га берилган замонавий баходир. Дархакикат, биринчидан – Р кушувчи тукиманинг тизимли касаллиги, айни пайтда нафакат юракдаги, балки узга органладаги бириктирувчи тукима хам патологик жараенга жалб этилади. Иккинчидан– Р нинг этиологик омили булиб гемолитик стрептококк хизмат килсада, бирок у барчада эмас, балки мойиллик булган шахсларда юзага келади. Учинчидан, касаллик эрта ешдан бошлансада, у умрнинг охиригача у еки бу даражада безовталик чакириб туради.

"Ревматизм" грекча REW – окаман сузидан олинган булиб, rhevmatismus – окмок демакдир. Уша даврда бош мияда зарарли суюкли пайдо булиб, у организмнинг бошка кисмларига окиши туфайли бугимлар шикастланади, деб тасаввур этилган. Бугимларнинг турли касалликлари Р деб тан олинган. Буйо (1840 г) ва айни пайтда Г.И.Сокольский бугим ва юрак хасталиклари орасида богликлик борлигини аниклашган. Кейинчалик С.П. Боткин Р да нафакат бугим ва юрак, балки бошка ички органлар хам маълум даражада жаранга жалб этилиши эътироф этилган.

Этиологияси:

А.И. Нестеров: «СТРЕПТОКОККСИЗ РЕВМАТИЗМ ЙУК».

Р патогенези

Яллигланишнинг биологик актив медиаторларини (гистамин, серотонин и бошкалар) хосил булиши

Ревматик яллигланиш жараенининг бир катор патоморфологик боскичлари тафовут этилади. Уларни билиш клиницист учун шарт ва зарур:

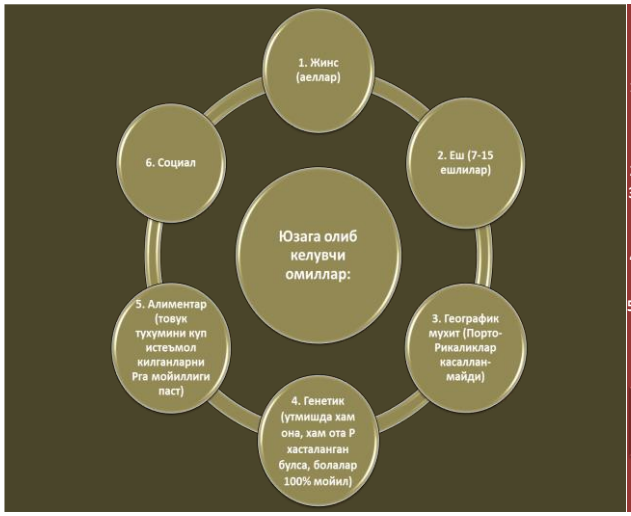
1.Мукоид букиш боскичи – 2 хафта атрофида давом этади

2. Фибриноидли шимиш (пропитывания), бу боскичда хужайралараро бушликка фибрин утказувчанлиги ошган кон томирлари деворидан сизиб ута бошлайди ва некрозга учрайди. Давомийлиги 4 хафтагача.

3.Хужайра инфильтацияси боскичи, бунда некрозга учраган фибрин толалари атрофида хужайра элементлари йигила бошлайди (Ашоф-Талалаев тугунчаси). Давомийлиги 2 ойгача.

4.Склерозга учраш боскичи, 2 ойгача давом этади.

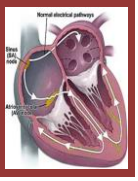
Мукоид букиш боскичи (2 хафта)тулик ва фибриноидли шимилиш даврининг дастлабки 2 хафтасидаги патоморфологик узгаришлар хали кайтардир. Буни билиш мухим ахамият касб этади.



Р асосий клиник вариантлари:

(рус педиатри Киссель томонидан таклиф этилган)

1. Кардит – юракнинг кайси кавати (эндокард еки миокард)купрок Р яллигланишга дучор булганини аниклаш кийинлиги туфайли купрок ревмокардит термини ишлатила бошланди. Р натижасида вужудга келган юрак нуксонлари хам кардит тушунчаси таркибига киритилади.
2. Полиартрит – Р хозирги пайтда атиги 25% холларда учрайди.
3. Хорея болалар МНС ревматик яллигланиши булиб, бунда асосан стриапаллид шикастланади ва у тартибсиз харакатлар, киефада узгаришлар ва хуснихат бу билан кечади.
4. Ревматик (Гебердена) тугунчалар – нухот катталигида болдир сохаси тери ост буладиган огриксиз тузилмалар. Атиги 0.5-1% холларда учрайди.
5. Халкасимон эритема – болдир, сон сохаси териларида юзага келадиган ва якка таркок эритематоз халкалар. Улар киска муддатли булиб, Р. 1-2 % холларида уч



"Квалификация врача - главная врачебная тайна". М. Горький

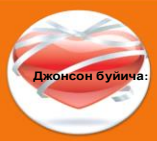
Р диагностик мезонлари катта ва кичикка булинади

Катта мезонлар:
кардит, полиартрит, хорея, халкасимон эритема, ревматик (Геберден) тугунчалари

Кичик мезонлар:
а)клиник (артралгия, иситма); б) лаборатор (ЭЧТ, АСК, АСГ, АСЛ-О,S ва бошкалар титрини ошиши)

"Каждый народ имеет ту медицину, которую ему финансир

Диагностик мезонлар



Джонсон буйича:

I. Асосийлар: кардит, полиартрит, хорея, ревматик тугунчалар ва халкасимон эритема

II. Кушимчалар: а) клиник (артралгия, иситма) б) лаборатор (ЭЧТ, фибриноген, АСК, АСГ, АСЛ-О,S титрларини ошиши)

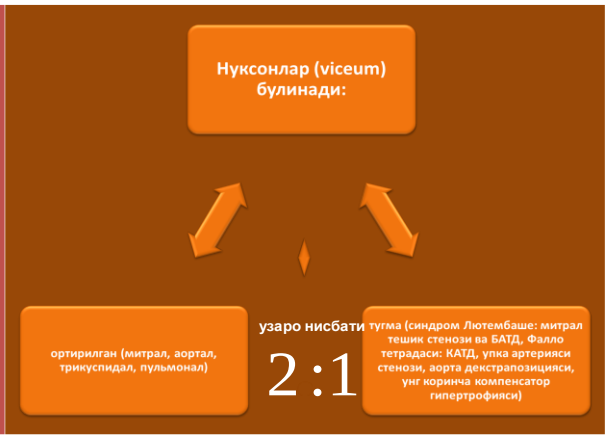
А.И. Нестеров буйича:

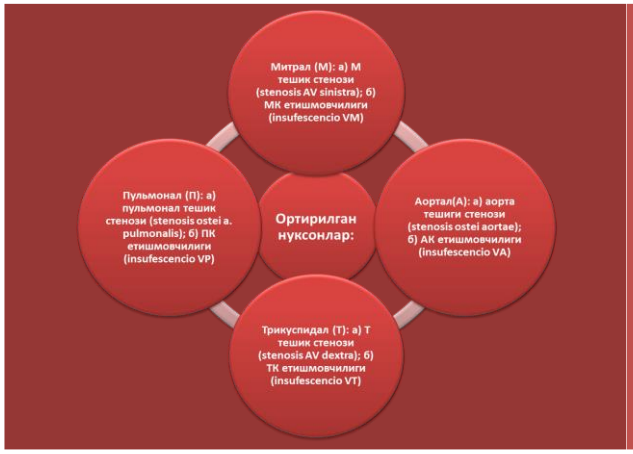
I. Асосийлар: кардит, полиартрит, хорея, ревматик тугунчалар, халкасимон эритема, ревматик анамнез и ех iuvantibus муолажа

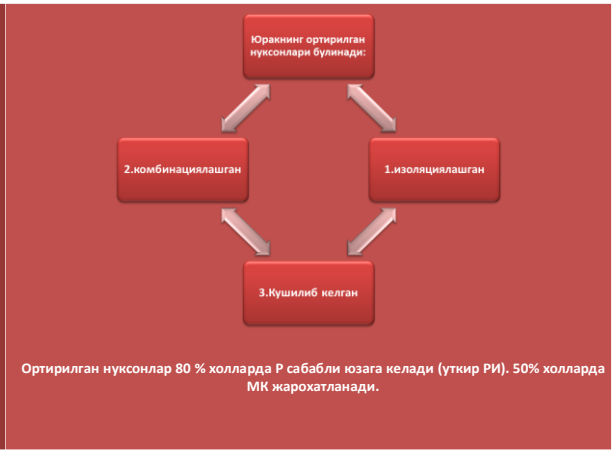
II. Кушимчалар: а) умумийлар (артралгия, иситма, тери ранги окариши) б) махсуслари (лейкоцитоз, ЭЧТ ва АСК, АСГ ва АСЛ-О,S титрларини ошиши)

«Амалиетдаги асосий дори бу шифокорнинг узидир»

«Айрим дорилар хасталикдан кура зараррлидир» (Фрэнсис

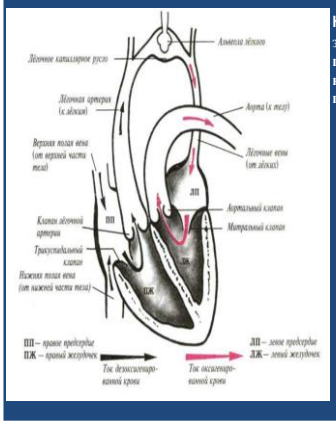






Ортирилган нуксонлар 80 % холларда Р сабабли юзага келади (уткир РИ). 50% холларда МК жарохатланади.

Митрал (МС) – stenosis ostii venosi sinistri s. stenosis mitralis, чап булмача ва коринча-аро тешикнинг торайиши булиб, унда диастола фазасида чап булмачадан чап к окиши лозим булган кон микдори кескин камайади.



Нормада митрал тешик майдони 4-6см² таш этади. 3см² гача торайса хам хали клиник бел-гилар намоен булмайди. Факаттина 2см² га кадар торайиб колсагина МС симптомлари пайдо була бошлайди.

МС сабаблари:

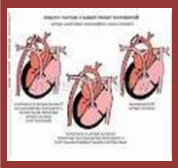
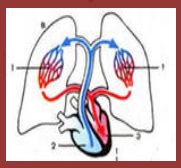
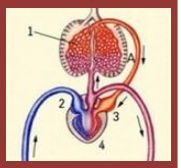
1.РИ (50% дан хам ортик холларда);
2.МК табакалари атеросклерози ва кальцификацияси;
1.МК табакалари пролапси;
2.Тугма формалари (Лютембаше синдроми);

Компенсатор механизмлар:

1. Булмача ичра босим ошиши;
2. Упка артерияси гипертензиясини юзага к ши (40/30 мм с.устинига кадар, N 25/15 мм устинига тенг)
3. ЧК диастола вакти чузилади

МС кечишида 3 давр тафовут этилади:

1. Компенсация → 2. Упка артерияси гипертензияси ва УК гипертрофияси → 3. УК етишмовчилиги (катта кон айланиш доирасида димланиш)

МС клиник аломатлари

Илк шикоятлар 40-50 ешда пайдо була бошлайди. МС мавжудлиги тасдикланган кейин, беморлар хатто муолажа кабул килмаса хам, тахминан 10 йиллардан кейин МС хос илк клиник белгилар намоен булади.

Шикоятлар:

1. Енгил жисмоний зурикишлар давомида хансираш;
2. Ортопноэ;
3. Тунги пароксизмал хансираш;
4. Йутал, дастлаб курик, сунгра продуктив тус олаиши мумкин;
5. Кон тупириш («юрак нуксони хужайралари»);
6. Шишлар (oedema)

PS. Курук йутал асосан жисмоний зурикиш давомида еки тунда содир булади. Упка шишида йутал пушти ранг купикли балгам еки айрим холларда кон тупириш, хатто кизил рангли кон ажралиши билан кечиши мумкин.

МС тугридан тугри аломатлари

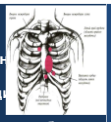
Асосийлар:

- Юрак чуккисиди диастолик шовкин;
- Кушимча тоннинг пайдо булиши (50%), (МК очилиш тони – opening snap);
- Кучайган («карсаксимон», замбарак товушли – Образцовча) I тон ;
- II тоннинг упка компонентини кучайиши;
-Чапдан 2 ковурга оралигида эшитиладиган диастолический (Грехэм Стилл)
- Диастолик калтираш;

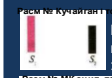
Кушимчалар:

- facies mitralis (еногларни кукимтир-кизил рангга буялиши);
- Периферик шишлар;
- Pulsus differens;
- Буйин веналарини буртиб чикиши;

Физикал текшириш натижалари:

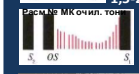


1 – куздан кечириш: митрал учлик («капалак» симптоми, митрал нан
ва facies mitralis), эпигастрал пульсация, юрак букрилиги;
2 – пальпация: юрак букрилиги – gibbus cardiaca, эпигастрал пульсац
мушук хириллаши – fremissement cataire (диастолик калтираш),
А.И.Нестеровнинг «икки тукмокча» симптоми, pulsus differens, юрак зарби;
3 – перкуссия: унг юрак чегарасини унгга ва юкорига силжиши (унг юрак, a. pulmo
ва чап булмача гипертрофияси хисобидан);
4 – аускультация: I тоннинг кучайиши, Мкнинг очилиш тони («бедана» ритми), ди
шовкин чуккида (асосий аускультатив белги), II тоннинг сусайиши ва чап том
2 ковурга оралигида эшитиладиган диастолик (Грехэм Стилл) шовкини.



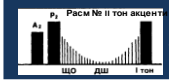
Расм № Кучайган I тон

Кучайган «карсаксимон» еки «замбарак товушли» (Расм.№) I тон юрак чуккисидаV ковурга оралигида lin.medioclavicularis sinistra дан 1,5-2 см ичкарида эшитилади;



Расм № МК очил. тони

«Бедана» ритми (Расм. № ва диастолик шовкин (V ковурга ора
гида lin.medioclavicularis sinistra дан 1,5-2 см ичкарида эшитилади



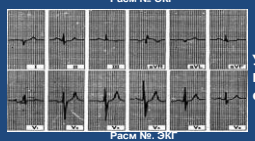
Расм № II тон акценти

II тон акценти ва Грехэм Стиллнинг диастолик шовкини (Ра
a.pulmonalis нуктасида (II ковурга оралиги туш суяги чап кир
си) эшитилади;

Инструментал текшириш натижалари

Расм № ЭКГ

МС да учрайдиган чап булмача фибрилляцияси аломатлари. Р тишча аникланмайди;



Расм №. ЭКГ

Унг коринча гипертрофияси ЭКГ аломатлари. R тишча нихоятда баланд V 1-2 узатишларда, ST сегмент ва Т тишча узгарган;

Расм № ФКГ

МСнинг ФКГ аломатлари. Кучайган I тон хамда диастолик шовкин регистрация килинади;

Инструментал текшириш натижалари

Расм № Рентгенограмма

Рентгенологик белгилари: упка юкори булаги васкул
циясини кучайиши ва митрал конфигурация;

Расм № ЭхоКГ

МС эхографик манзараси. Допплер ЭхоКГ ердамида м
тешик майдони хамда чап булмача ва коринча орасид
босим градиенти ва упка артериясидаги босим курса
лари аникланади, айни пайтда МС огирлик даражаси
бахо берилади;

МК етишмовчилиги (митрал регургитация) – insufficientia valvulae bicuspidalis s. mitralis – ЧК систоласи давомида МК табакаларини тулик епилмаслиги билан намоен булади ва конни ЧК дан Чбга тескари окиши (регургитацияси) кузатилади. Мкнинг органик ва функ-ционал етишмовчилиг фаркланади. Хозирги пайтда ушбу нуксон митрал регургитация (МР) деб хам номланади.

Расм № МР схемаси

1. Этиологияси

а. Тугма патология: клапанни булиниши, пролапс ва х.о.;
б. МК яллигланиши: Р, ТКБ (СКВ), тизимли склеродермия, аортоартериит;
в. Дегенератив жараенлар: миксоматоз дегенерация, Марфан ва Элерс—Данло синдромлари, митрал халка кальцификацияси;
г. Инфекция: инфекцион эндокардит;
д. МК аппарати патологияси: хордаларни узилиши, сургичсимон мушакларни узилиши еки дисфункцияси, митрал халка ва ЧК дилатацияси, ГКМ, МК атрофидан регургитация (сунъий клапанлар асорати);
е. Митрал вальвулопластикаси асоратлари;

Кечишига караб МР тафовутланади:

А) Уткир (папилляр мушаклар еки хордал бойламаларнинг узилиши, инфекцион эндокардит натижасида);
Б) Сурункали (РИ, юрак коронар хасталиклари натижасида);

Клиник манзараси:

а. ***Хансираш*** — ута хос шикоят. Урта ва огир сурункали МР еки уткир МР ларда купрок кузатилади;
б. ***Тезда чарчаш*** – систолик хажм самараси пасайиши туфайли юзага келади. Огир МР ва ЧК систолик дисфункциясидан далолат беради;
в. ***Кон тупуриш*** – упка шишида сустрок намоен булади ва аксинча бронх веналари деворлари емирилган пайтда массив тус олиши мумкин;
г. ***Товуш бугилиши*** – *п.* reccurens ни гипертрофияга учраган чап булмача кисиб куйиши туфайли кузатилади (Ортнер симптоми); МС да еки МС ни МР билан кушилиб келишида нисбатан купрок учрайди;

Физикал текшириш

а. ***Умумий куздан кечириш***, юрак сохаси ва кон томирларни текшириш.
1) Ташки киефа: Марфан синдроми белгилари — баланд буй, астеник гавда тузилиши, кулларни номуттаносиб узунлиги, бугимлар харакати диапозонини кенглиги, терини бехад чузувчан булиши, кукрак кафаси деформацияси, кифосколиоз, танглайни юкори булиши;
2) Асосий физиологик курсатгичлар: огир пульс урта тулишда ва тез кутарилувчан;

б. ***Пальпация:*** чукки зарби — кенг, чузилувчан, чапга силжиган. Систолик калтираш (огир МР дарак берувчи). Упка артерияси пульсацияси ушбу томирдаги гипертензия белгиси. УК пульсацияси упка артерияси гипертензиясидан еки ТР дарак беради;

в. ***Перкуссия:*** юрак чегараси унгга ва юкорига сижиганини аниклашга имкон беради (унг коринча ва a. pulmonalis узани хамда ЧБ гипертрофияси хисобидан);

в. ***Аускультация.*** *Огир* МР I тон сусайган, III тон эшитилиши мумкин; упка артерияси гипертензиясида II тон акценти кайд этилади. Пансистолик диастолик шовкин юрак чуккисида.

Расм № Марфан синдроми

Расм № Арахнодактилия

Инструментал текшириш усуллари натижаси:

1. ЭхоКГ (Расм №) ердамида МР этиологияси, унинг огирлигини, ЧК компенсатор имкониятлари, асоратлар тури (ЧК, УК етишмовчилиги) аникланади. Шунингдек кушилиб келган бошка нуксонлар хам аникланиши мумкин.


Расм № ЭхоКГ

2. Юрак катетеризацияси (Расм №). МР огирлик даражаси аникланади.


Расм № Юрак катетеризацияси

3. Коронар ангиография и вентрикулография (Расм №). Коронар ангиография ердамида ЮИК аникланади. Вентрикулография давомида кон регургитацаси, унинг огирлик даражаси ва ЧК хажми аникланади.

4. Регургитацияланаетган кон фракцияси хажмини аниклаш.


Расм № Ангиография ва вентрикулография

Аорта равоги стенози

Аортал стеноз (АС) – stenosis ostii aortae АК тешиги сохаси торайиши ва шу саба систолик хажмнинг камайиши билан кечадиган хасталикдир.

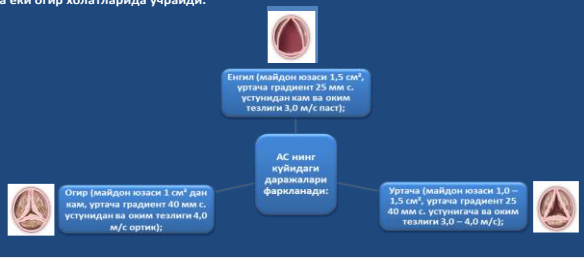
Этиологияси

а.2 табакали АК мавжудлиги туфайли стеноз (бу нуксон 2% холларда учрайди) нисбатан еши катталарда (асосан 50 ешдан кейин) ривожланади ва 50% дан ортик холларда вальвулапласикани талаб килади (Расм №).
б. РИ – деярли хамма вакт МК жарохати билан кечади. Алохида учрайдиган АС одатан норевматик сабабдан дарак беради.
в. АК изоляциялашган кальцификацияси — нисбатан куп учрайдиган сабаб; 65 ешгача 40%, 65-80 ешда 90% дан холларда АК протезлашга сабаб булади.
г. Атеросклеротик АС огир гиперлипопротеидемия-да, фиброз тугунчали — РА да, АС кальцификацияси — Педжет касаллигида ва СБЕ (ХПН) терминал бос-кичида (айрим пайтда) учрайди.
д. Инфекцион эндокардит (айникса сабаби Candida spp., Haemophilus parainfluenzae булса) ва айрим холларда АС нинг уткир варианти сифатида намоен булади.

Расм № АК холатлари

Клиник манзараси

а. Хансираш – систолик дисфункция натижасида (АС декомпенсациялашганда) еки ЧК нинг бирламчи диастолик дисфункциясида.
б. Миокарднинг кислородга булган талаба ва унинг реал таъминоти орасидаги муттаносиблик бузилиши натижасида стенокардия юзага келиши; АС бор 70% беморларда ангиноз огрик учрайди.
в. Тез чарчаш ва дармонсизлик нисбатан кечрок намоен булади ва огир АС учрайди. Куп холларда ЧК дисфункциясидан далолат беради.
г. Хушдан кетиш – систолик хажмни камайиб кетиши натижасида содир булади ва факатгина АС урта еки огир холатларида учрайди.



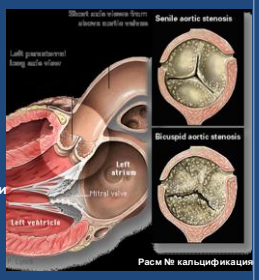
АС тугридан тугри белгилари

Асосийлари:
-Систолик шовкин - тушнинг унг томони 2 ковурга оралигида ва Боткин-Эрб н (дагал, интенсив, баланд);
- II тонни аорта устида сусайиши еки бутунлай йуколиши;
- I тонни сусайиши;
-Систолик кассирлаш (щелчок), туш унг томони 2 ковурга оралигида ва Ботки -нуктасида(«хайдалиш тонини» эшитилиши;

Кушимчалар:
- Pulsus tardus et parvus;
- Чукки зарбини кучайиши (кутарувчан), V – VI ковурга оралиги чап урта умров чизигининг ташки томонида аникланади;
- Унгда 2 ковурга оралигида систолик калтираш аникланади;
- Систолик кон босими пасайган, диастолик эса нормал еки ошган;

Диагностик жараен вазифалари

а. АС этиологияси ва огирлик даражаси аникланиши зарур (Расм №), ЧК фаолияти бахоланиши керак.
б. Юракнинг айни пайтда йулдош хасталикларини (бошка клапанлар нуксоно, коронар атеросклероз) аниклаш.
в. Хатто бошка тизимларнинг (буйрак, упка, асаб) мавжуд хасталикларини аниклаш.
г. Шикоятларига адекват бахо бериш, функционал синфларни аниклаш, бемор турмуш тарзи билан якиндан танишиш.
д. Симптомсиз кечиш холларида ноинвазив усулларни (ЭКГ, рентгенография, ЭхоКГ) куллаш.
е. Коронар атеросклерозга тахмин килганда еки хирургик муолажа таклиф этилиш кутилаетганда— юрак катетеризациясини ва коронар ангиографияни амалга ошириш.



Расм № кальцификация

«В Бухаре нет метрополитена, потому что бухарцы так низко не опускаются»
(Пропедевтик лирика)

Физикал текширишлар натижаси

а. Куздан кечириш, юрак сохаси ва кон томирларни: тери рангига эътибор(одатан ок рангда);

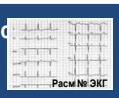
б. Пальпация, чузилувчан чукки зарби (лекин кенг эмас), пайпаслашда хис этиладиган IV тон ЧК гипертрофиси дараги; систолик калтирашни пайпаслаш мумкин. АС огир даражаларида секин кутариладиган ва паст амплитудали пульс тулкини кузатилади (секин ва кичик пульс);

в.Перкуссия, юрак нисбий тумтоклик чегараларини чапга силжиши кузатилади;

г. Аускультация, II тоннинг аортал компоненти сусайган; АС мезосистолик шовкин эшитилади; унинг эшитилиши II тон бошланиши арафасида тугайди, туш суяги чап томонида якши эшитилади ва хатто уйку артерияларигача таркалади. АС даражаси ортган сари ушбу шовкин интенсивлиги оша боради ва шунинг учун юрак ва уйку артериялари сохасида пальпатор аникланадиган систолик калтираш юзага келади. Хатто айрим холларда ушбу шовкиннинг юкори частотали компонентлари култик ости сохасига кадар таркалиши ва эшитилиши ва худди шу сабабли МР хос шовкинни имитация килиши мумкин (Галлаварден симптоми).

Инструментал текшириш усуллари натижас

а. ЭКГ – ЧК гипертрофияси белгилари (Расм №), Р тишча нормал булади, агар ЧП катталашмаган булса.


Расм № ЭКГ

б. ФКГ – систолик шовкин кайд этилади (Расм №), I тон билан биргаликда «АК очилиш тони» аникланиши мумкин.


Расм № ФКГ

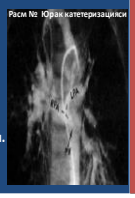
в. Кукрак кафаси органлари рентгенографияси: АК кальцификацияси ва аортанинг постстенотик дилатацияси, ЧК дилатацияси ва сунгги боскичларида упкада кон димланиши аломатлари кайд этилиши мумкин.


Расм № рентгенограмма

д. ЭхоКГ. АК структураси аникланади (2 табакали клапан, табакаларни калинлашуви, фиброз, кальцификация, вегетация), АК харакати хусусиятлари (табакалар харакати диапозони, очилиш амплитудаси) ва АК тешиги майдони юзаси (Расм №) аникланади; аорта илдизидаги узгаришлар (постстенотик дилатация), ЧК гигими, гипертрофияси даражаси, хайдалиш фракцияси , ЧБ хажми, бошка клапанлар холатига бахо берилади. Допплер ЭхоКГ ердамида аорта ва ЧК орасидаги босим градиенти аник кайд этилади.


Расм № ЭхоКГ

г. Юрак катетеризациси ва коронар ангиография ердамида ЧК хайдалиш фракцияси хажмини пасайиши сабаблари аникланади. Гемодинамик параметрлар аникланади: аорта ва ЧК аро босим градиенти, систолик хажм микдори, упка артериясидаги босим, АК майдони юзаси ва бошкалар. Вентрикулография ердамида: ЧК фаолиятига бахо ва МР диагностика килинади. Коронар ангиография ердамида: коронар атеросклероз диагностикаси амалга оширилади. Аортография: аортал етишмовчилиги диагностика килинади.


Расм № Юрак катетеризацияси

Аортал клапан (АК) етишмовчилиги - insufficientia valvulae semilunaris aortae, аортал ре-
гургитация (АР), аортага хайдалган коннинг (50%гача) талайгина кисмини АК абсолют еки нисбий етишмовчилиги сабабли кайтиб ЧК (диастола фазасида)тескари окиши (регургитацияси) кузатиладиган патологик холатдир.

Этиологияси:

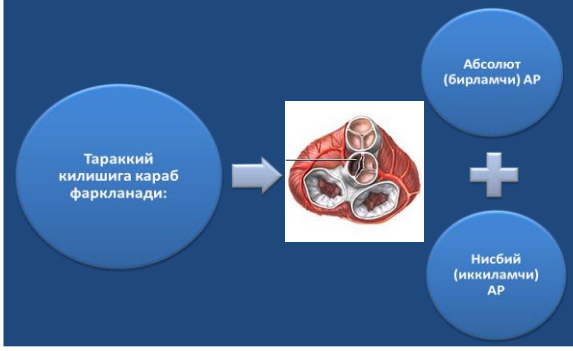
а. АК жарохати турлари

1) Тугма 2 табакали АК: тулик бекилмайди еки пролапс; 2) Р;
3) Инфекцион эндокардит: аксарият холларда МК билан биргаликда шикастланади; табакалар емирилади, пролапс;
4) Миксоматоз дегенерация: пролапсга олиб келади;
5) Вальвулит: яллигланиш чандиклари табакаларни тулик бекилишига йул бермайди.
6) Травма: бирламчи жарохат (табака букилиши еки узилиши кузатилади); иккиламчи пролапс аорта девори емир-да вужудга келади.

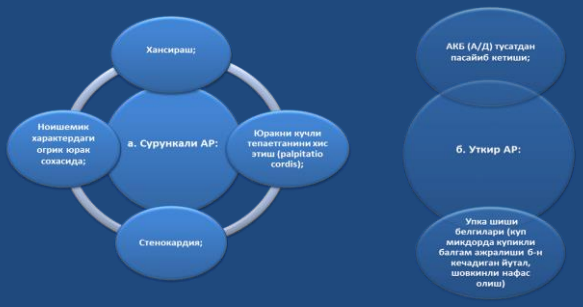
б. Аорта илдизи жарохати турлари

1) Бириктирувчи тукима ирсий хасталиклари: кушувчи тукима юмшайиб колиши еки медионекрози аорта илдизи дилатациясига олиб келади. Аортоаннуляр эктазия (медионекроз натижасида)—аксарият холларда еши улуг кишиларда изоляциялашган аортал етишмовчиликка сабаб булиб хизмат килади; айрим пайтларда Марфан синдромининг бир аломати сифатида намоен булади.
2) АГ: аорта илдизининг сурункали дилатацияси.
3) Сифилис: аорта дилатацияси, деворларини калинлашуви;
4) Аорта девори емирилиши: табакалар таянч аппарати патологияси.
5) Коринчалар аро тусик дефекти.

АК етишмовчилиги турлари



Клиник манзараси



Сурункали АР физикал текшириш натижалари

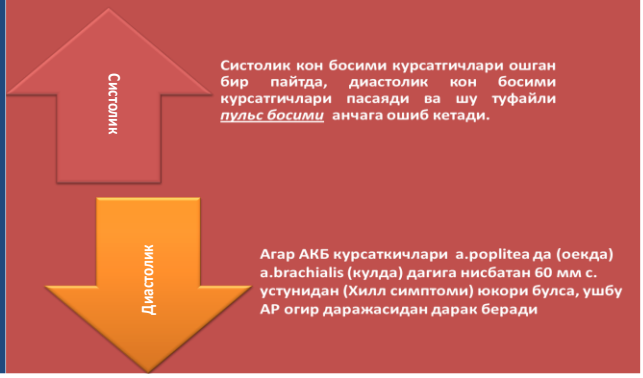
а. *Куздан кечириш* – Марфан синдроми белгиларини булиши, Мюссе, Квинке симптомлари, уйку артерияси «ракси»;

б. *Пальпация* – Корриген пульси (баланд ва тез пульс): a.radialis да кулни юрак сохасига нисбатан баланд кутариш холларида яхширок хис этилади, Квинке пульси: тирнок илдизи капиллярларини аранг кузга илинадиган пульсацияси; чукки зарби — кенг, чузик ва кучайган, чапга силжиган; III тонни пайпаслаш, тушнинг юкори чап кирраси сохасида диастолик калтирашни аниклаш;

в. *Перкуссия* – юрак нисбий тумтоклик чегараларини чапга силжиши;

г. *Аускультация* – сунувчи диастолик шовкин (тушнинг чап кирраси сохасида нафас чикариш фазасида олдинга энгашган холда яхширок эшитилади); паст частотали мезодиастолик шовкин МК сохасида (*Флинта шовкини*) кайд этилади; *Траубе тони*: сон артерияси сохасида баланд замбаракли тон; *Боткин тони* елка артериясида (агар ушбу тон кул вертикал холатида эшитилса унда у *Курлова тони* деб эътироф этилади). *Дюрозье шовкини:* сон артериясида шовкин аникланади;

Пульс босими узгаришини узига хос хусусиятлари

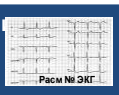


Систолик кон босими курсатгичлари ошган бир пайтда, диастолик кон босими курсатгичлари пасаяди ва шу туфайли *пульс босими* анчага ошиб кетади.

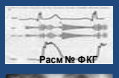
Агар АКБ курсаткичлари a.poplitea да (оекда) a.brachialis (кулда) дагига нисбатан 60 мм с. устунидан (Хилл симптоми) юкори булса, ушбу АР огир даражасидан дарак беради

Диагностиканинг инструментал усуллари

а. ЭКГ: ЧК ва ЧБ гипертрофияси белгилари (Расм №);


Расм № ЭКГ

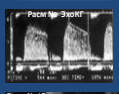
б. ФКГ: диастолик шовкин кайд этилади (Расм №);


Расм № ФКГ

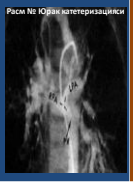
в. Кукрак кафаси рентгенографияси: огир АР куп холларда ЧК нинг яккол гипертрофияси кузга ташланади (Расм №). Аорта кенгайган ва силжиган булади.


Расм № Рентгенограмма

д. ЭхоКГ да аникланади: АК тузилишидаги узига хослик; аорта илдизи анатомик хусусиятлари ва улчамлари; ЧК хайдалиш фракцияси; допплер воситасида эса текшириш, АР ва унинг огирлик даражаси (Расм №) аниклашга имкон беради;


Расм № ЭхоКГ

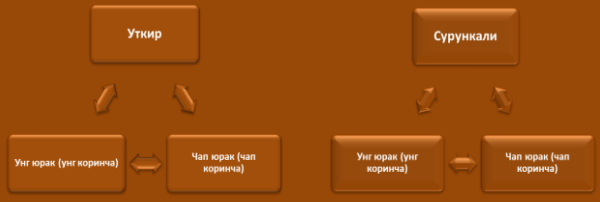
г. Юрак катетеризацияси (Расм №), коронар ангиография и аортография.
Курсатма:
1) Клиник белгилари намоен булган АР, операциядан олдин; аортанинг емиралаетган аневризмасини диагностика килиш учун, бошка клапанлар ва коронар атеросклероз диагностикаси максадида;
2) Симптомсиз кечадиган ва огирлик даражаси ноаник АР;


Расм № Юрак катетеризацияси

Юрак етишмовчилиги синдроми

Юрак етишмовчилиги синдроми (ЮЕС) органнинг насос фаолияти бузилиши натижасида содир буладиган клиник аломатларэто комплекс симптомов и клинических признаков, появляющихся на фоне нарушения насосной функции сердца. ЮЕС белгилари турли хил булади ва ушбу синдромнинг формаларига боглик. Пациент соглиги ва хаетини саклаб колиш максадида ЮЕС илк белгиларини эрта аниклаш катта ахамият касб этади.

ЮЕС классификацияси:



PS. Изоляциялашган ЮЕС (чап еки унг коринчали) асосан уткир холларда, сурункали ЮЕС эса аксарият холларда аралаш (бивентрикуляр, тотал) булади.

Уткир ЮЕС

Уткир ЮЕС – ушбу холатга хос булган клиник аломатларни киска вакт ичида (бир неча минут еки соатлар давомида) тез юзага келиши билан ажралиб туради. Унинг асосий турларига: юрак астмаси, упка шиши ва кардиоген шок дохил булади. Ушбу клиник формалар критик холатлар деб тан олинади ва зудлик билан шифокор томонидан тиббий ердам курсатилишини такозо этади.

ЮЕС уткир вариантлари соат сайин кучайиб борувчи хансираш билан бошланади. Айни пайтда бадан териси кукимтир (цианоз) тус ола бошлайди, кучли бош айланиши еки тусатдан хушни йукотиш, бет ва буйин териси йирик тер томчилари ва упкада нам хириллашлар пайдо булиши билан давом этади. Ушбу симптомлар миокард инфаркти ехуд гипертоник криз билан биргаликда намоен булиши мумкин ва юракнинг (чап коринчанинг) уткир декомпесациясидан дарак беради.

Уткир ЮЕС асосий сабаблари:

- Миокард инфаркти
- Сурункали ЮЕС декомпенсацияси
- Клапанларнинг уткир етишмовчилиги
- Юрак фаолияти ритмини бузилиши
- Юрак травмаси
- Юрак тампонадаси
- Упка артерияси тромбоэмболияси


Расм № ЮЕС ортопное холати

Сурункали ЮЕС

Сурункали ЮЕС – бу ЮКТ тизимининг кенг таркалган хасталиклари окибатида юзага келадиган симптомокомплекс булиб, унга хос булмиш аломатларни секин-аста, аммо стабил намоен булиши билан ажралиб туради. Аксарият холларда сурункали ЮЕС га хос аломатлар маълум муддат давомида охисталик билан юзага келади ва юрак (чап коринча) фаолиятини давомли декомпенсациясидан далолат беради. Аммо, айрим холларда сурункали ЮЕС симптомокомплекси юрак уткир хасталиклари хуружи (М; миокард инфаркти) заминида тараккий килиши мумкин.

Сурункали ЮЕС асосий сабаблари:

- Сурункали ЮИК (стенокардия)
- Кардиосклероз
- Сурункали упка-юрак синдроми
- Артериал гипертония
- Юракнинг клапан аппаратини хасталиклари

Сурункали ЮЕС асосий симптомлари:

- Шишлар
- Хансираш
- Сурункали курук йутал
- Холсизлик
- Юрак тепиши
- Никтурия

Юрак етишмовчилиги классификацияси

(Америка кардиологлари ассоциацияси (NYHA) томонидан 1928 й. таклиф этилиб, 1994 й. кайта куриб чикилган)

Функционал синфлар (ФС)	Характеристикаси
I ФС	Одат тусига кириб колган жисмоний зурикиш давомида ЮЕС белгилар намоен булмайди
II ФС	Одат тусига кириб колган жисмоний зурикиш давомида ЮЕС белгилари пайдо булади
III ФС	Енгил жисмоний зурикишлар давомида ЮЕС симптомлари пайдо булади
IV ФС	Хатто тинч холатда ЮЕС белгилари намоен булиб туради

рункали ЮЕС (кон айланишини сурункали етишмовчилиги) классификацияси .Х. Василенко ва Н.Д. Стражеско, 1935 г.)

I боскичи – бошлангич, кон айланишининг яширинч етишмовчилиги (КАЕ), факатгина жисмоний зурикиш давомида пайдо булади (хансираш, юрак тепиши, бехад холсизлик).

II боскичи – чузик яккол КАЕ, кичик ва катта кон айланиш доираларида димланиш белгилари тинч холатда намоен булади.
А даври – КАЕ белгилари тинч холатда суст намоен булади. Гемодинамик бузилишлар факат бирта кон айланиш (катта еки кичик) доирасида кузатилади.
Б даври – гемодинамикани яккол бузилишлари хам катта, хам кичик кон айланиш доираларида кузатила бошланади.

III боскич – сунгги, дистрофик деб хам номланади ва огир гемодинамик бузилишлар ва улар натижасида модда алмашинувида тургун узгаришлар, деярли барча ички органларда кайтмас жараенлар кузатилади.

Handouts

Respiratory aspirations

Accecмент 1

Test	Situational issue
It is observed in the examination of patients with asthma status; 1). The thoracic barrel-shaped (emphysematous) jugular veins dilate on exhalation, the nose is swollen.2). Emphysematous chest type, the heartbeat shifts to the left.3). Auxiliary muscles are involved in breathing.4). Noisy breathing with dilated jugular veins and narrowed chest. 5). Emphysematosis is a type of chest in which the heart moves to the left and the lungs move down. a) 4.5. b) 2.3; v) 3.4; g) 1.3; **Indicate the location of the pleural puncture**; 1). The axillary line is over 8 ribs.2). 7 or 8 rib intervals, above the lower ribs.3). Shovel line, 7-8 rib spacing.4). Underarm back line. 5). The posterior axillary line is 7 ribs above. a) 2.4; b) 2.3; v) 3.4; g) 4.5.	The patient, a 25-year-old female, reported herself to the doctor several years ago when she came to see the doctor. When questioned, the patient was found to have a cough, difficult sputum production, shortness of breath, and shortness of breath. During percussion in the patient, a box sound was heard on the surface of the lungs and the pulmonary excursion changed, the lower border of the lungs shifted downwards and the Krenig area shifted upwards. Bronchophonia subsides in the chest. What is your approximate diagnosis? What objective changes do we see in the patient? What auscultatory changes can be heard in this patient? What are the changes in the sputum?
Conceptual analysis: **The concept of snoring**	**Practical skills** **Lung excursion detection technique**

Accecмент 2

Test	Situational issue 6
29. Indicate auscultatory changes in the status of bronchial asthma; 1). Vesicular breathing subsides, dry wheezing is heard.2).	The patient is 44 years old, male. An ambulance was brought to the emergency medical research center and

Whistling hissing is heard, vesicular breathing subsides.3). Vesicular breathing intensifies, wheezing is heard.4). Bronchial breathing is intensified, crepitation is heard.5). Vesicular breathing subsides, crepitation is heard a) 1,2; v) 3.4; b) 2.3; g) 4.5; **30. Name the laboratory blind spots characteristic of bronchial asthma;** 1). Kurshman spirals, Sharko-Leiden crystals, leukopenia.2). Eosinophilia, Kurshman spirals.3). Lymphocytosis, Sharko-Leyden crystals.4). Lymphocytosis Eosinophilia, hypochrony.5). Kurshman spirals, Sharko-Leiden crystals, Eosinophilia, ECHT decline. a) 2, 1; v) 3.4; b) 2.3; g) 4.5;	information was received that the patient's case was related to dust. The patient has expiratory shortness of breath and bruising of the lips on examination, the chest is barrel-shaped, the accessory muscles are involved in the act of breathing. On auscultation, the patient heard diminished vesicular breathing and dry scattered wheezing, and difficulty (prolonged) exhalation was detected. Bronchophonia subsides in the chest. Make a tentative diagnosis of the patient? What is the sound vibration? What percussion changes may this patient have? What functional tests are performed and what changes are possible?
Conceptual analysis: **The concept of crepitation**	**Practical skills** **Techniques for determining the upper limit of the lungs**

Accecмент 3

Тест **25. Screams are heard:** 1). When inhaling, exhaling.2). Inflammation of the lung tissue during respiration.3). If the bronchi constrict and sputum accumulates.4). Inflammation of the lung tissue during exhalation.5). If the bronchus narrows, stage III in croupous pneumonia. a) 2.1; v) 3.4; b) 1, 3; g) 4.5. **26. Crepitation is heard;** 1). Inhalation, in bronchial asthma.2). Inflammation of the lungs during inhalation, exhalation.3). If less fluid accumulates in the alveoli, the alveoli are at the time of opening.4). Only when breathing, when the lung	**Situational issue 8** Patient M., 30 years old, male. The anamnesis revealed that he had been ill since childhood and had a whooping cough as a child. When the patient was questioned, his problems were as follows; cough, mostly in the morning and in the evening on the left side complains of more and more sputum secretion, the nature of sputum is purulent, weakness, sweating, rapid fatigue, headache i is annoying. Auscultation revealed wheezing in the left side of the patient's chest, and when the anamnesis was collected, it was found that he had a whooping cough at a young age. What is your approximate diagnosis? What are the patient's percussion changes? What are the possible bronchoscopic

tissue is inflamed. 5). In pulmonary atelectasis on respiration a) 4.5 v) 1.2; b) 2.3; g) 3,4 ;.	changes? What changes can we see in the patient's sputum?
Conceptual analysis: **Explain the increase in vesicular respiration**	**Practical skills** **Bronchophony technique**

Accecмент 4

Test	**Situational issue 9**
23. The pathological type of bronchial breathing includes: 1). Amphoric, metallic breath.2). Stenotic, pueril.3). Amphoric, saccharified.4). Stenotic, amphoric. 5). Metallic, amphoric, puerile, saccharified a) 1, 4; b) 2.3; v) 3.2; g) 4.5. **24. Screams are formed:** 1). If the wall of the bronchi thickens, the lung tissue becomes inflamed.2). If fibrous tissue forms in the bronchi, the bronchial wall thickens.3). Narrowing of the bronchi, accumulation of fluid in the bronchi (sputum) .4). If sputum accumulates in the bronchi, it is in croupous pneumonia.5). In bronchospasm, pulmonary atelectasis, sputum accumulation in the bronchi. a) 2,3; b) 1,2; v) 3.4; g) 4.5.	The patient, a 45-year-old female, reported that she had been under dispensary supervision for many years. When the doctor examines the patient objectively, the thorax is barrel-shaped, the intercostal spaces are widened, and the supraspinatus and subclavian cavities are flattened. When the patient was examined by palpator, the sound vibration was reduced. On auscultation, the patient hears vesicular breathing on all surfaces of the lungs and bronchophonia is reduced. What is the approximate diagnosis of the patient? What percussion changes will this patient have? What kind of instrumental testing is acceptable and what are the changes? What functional tests should be performed and what changes should be made?
Conceptual analysis: **Decreased vesicular respiration**	**Practical skills** **Spirography technique**

Accecмент 5

Test	**Situational issue14**
13.Krenig maydoni qisqaradi: 1). Bronxial astmada.2). Pnevmosklerozda. 3). Tuberkulyozda. 4). Eksudativ plevritda. 5). Obstruktiv bronxitda. a) 2,3; b) 1,3; v) 1,4; g) 1,5.	Patient I. 28 years old, male. He had the flu two weeks ago and his condition has not changed despite treatment. The problems identified at the doctor's appointment were cough, fever, shortness of breath, and shortness of breath, and a percussion sound when the patient was percussed

14.O’pkaning pastki chegarasining yuqoriga siljishi sabablari: 1). O’pka bujmayishi, atelektazida. 2). Jigar exinekokkida taloq katalashsa (leykozda), o’pka emfizemasida.3). Bronxial astmada pnevmosklerozda, plevra bo’shlig’ida suyuqlik, havo to’plansa. 4). Atelektazda bronxial astmada, plevra bo’shlig’ida suyuqlik to’plansa. 5). Plevra bo’shlig’ida suyuqlik to’plansa, jigar exinekokkida. a) 1,2; v) 1,4; b) 1,3; g) 1,5.	and a muffled percussion sound and auscultation in the middle of the right lung. bronchial breathing was heard. The patient's bronchophonia was found to be exacerbated. What is your approximate diagnosis? Describe the palpation changes in the patient? What are the radiological changes?
Conceptual analysis: **Explain the comatose state of the patient**	**Practical skills** **Bronchial breathing hearing points**

Accecмeнт 6

Tecт **11. The tympanic percussion sound is heard**: 1). In pulmonary emphysema. 2). If the lung abscess is empty. 3). In Krenig Square. 4). In the travbe cavity. 5). Bronchial asthma. a) 1,2; v) 2.4; b) 1.3; g) 1.5. **12. Percussion sound in the travbe area:** 1). The sound of drums. 2). Tympanic sound. 3). Box sound. 4). A muffled sound. 5). Lung sound. a) 1,2; v) 1.4; b) 1.3; g) 1.5.	**Situational issue 5** Patient M., 31 years old, male, the problems identified at the doctor's appointment were dry cough for 2 weeks, fever, pain in the right side of the chest. When the doctor asks the patient, the pain subsides on the right side and increases on the opposite side. During the physical examination, a percussion lung sound was heard. Bronchophonia has not changed. What is the approximate diagnosis of this patient? What about auscultatory changes? What instrumental tests are needed?
Conceptual analysis: **Explain the pathological types of the chest**	**Practical skills** **Chest palpation technique**

Ascents related to the cardiovascular system

Accecмeнт 1

Test **1. What are the symptoms of aortic aneurysm?** 1). Skin color is blue, white, swelling in the legs.2). The fingers are drumsticks, the skin is white and the lips are blue.3). There are rashes on the skin, paleness, blue lips, ears, nose.4). Skin is pale, lips, nose, nipples, a) 1.3; v) 2,3; b) 2.4; g) 3.4. **16. In which pathological process does the rhythm of squawking occur?** 1). Level II valve insufficiency during systole.2). Class II valve stenosis in ventricular diastole.3). In stage III valve insufficiency diastole.4) .III-stage valve stenosis in ventricular diastole. a) 2-3; v) 2-4. b) 1-3; g) 1-2;	**Situational issue** Issue 1 Patient M., an 18-year-old female, complained of weakness, rapid fatigue, shortness of breath during a medical examination in college, and on auscultation a systolic murmur was heard in the right intercostal space II, ECG showed signs of left ventricular hypertrophy . Tell me what is missing. What changes can be seen when examining the lens. Please tell, whats the story of them big puppys .....
Conceptual analysis: **Palpation changes in mitral stenosis**	**Practical skills** **Determining the relative bluntness of the heart**

Assessment 2

Test **2. Is the symptom of cat wheezing felt on palpation?**1). Mitral valve stenosis, in aortic valve insufficiency.2). In aortic valve stenosis, and pulmonary trunk insufficiency.3). 2-layer valve stenosis, and in aortic valve stenosis.4). Mitral valve stenosis. a) 1 and 3; b) 2 and 3; c) 3 and 4; g) 2 and 4. **17. III tone is formed?**1). At the beginning of ventricular systole and ventricular diastole.2). Sectional diastole and ventricular systole.3). In premature contraction of the heart muscle.4). At the beginning of ventricular diastole. a) 1-4; v) 1-2; b) 1-3; g) 2-4.	**Situational issue** Issue 2 Patient K. was 6 years old and underwent a medical examination before going to school. When the child was admitted, a diffuse cyanosis was detected, auscultated, and a systolic murmur was heard between the V ribs to the left of the sternum. What is wrong with the patient, your opinion. Describe palpator and percussion changes. What instrumental inspections need to be carried out and what changes can be expected.
Conceptual analysis: **Auscultatory changes in mitral valve stenosis**	**Practical skills** **Determining the absolute**

	blunt limit of the heart

Assessment 3

Test	**Situational issue**
3. What is detected on palpation of the heart area?1). Cardiac impulse, bulge, impulse resistance venous pulsation.2). Aortic pulsation, cardiac impulse, impulse width, cardiac hypertrophy.3). Heart rate, width, resistance.4). Height of heart rate. a) 1-3; b) 2-3; v) 1-4; g) 3-4 **18. Indicate auscultatory changes in mitral valve insufficiency?**1). I tone decreases and II tone increases.2). I tone subsides.3). Systolic noise in mitral valve projection.4). Diastolic noise in mitral valve projection. a) 2-4; v) 2-3; b) 1-2; g) 1-4.	3- masala Patient A., a 23-year-old female, complained of headache, weakness, rapid fatigue, shortness of breath during physical activity when she came to the doctor, and it was clear that she had a history of rheumatism. On physical examination — auscultation — a uniform diastolic murmur was heard at the base of the heart and at the Botkin-Erb point. What a flaw it is, your opinion. What a change we can see when we look at the patient objectively. What changes can be expected on the ECG.
Conceptual analysis: **Mitral valve stenosis and etiological factors**	**Practical skills** **Techniques for the detection of vascular tumors**

Assessment 4

Test	**Situational issue**
4. Show auscultatory change in mitral valve stenosis.1). Diastolic noise in mitral valve projection. Bedona singing rhythm.2). Systolic murmur in mitral valve projection. Bedona singing rhythm.3). I tone attenuation and diastolic noise in mitral valve projection.4). Diastolic noise and I tone increase in mitral valve projection. a) 1-4; b) 2-3; v) 1-3; g) 1-2. **19. What are the auscultatory signs of mitral valve stenosis?**1) .Diastolic noise in the projection of the mitral valve.2) .Systolic noise in the projection of the mitral valve.3). The opening	Issue 4 Patient S., 6 years old, girl, attends kindergarten. During the prophylactic examination, the doctor determined that the child had malnutrition and decided to auscultate the child to determine if there was noise during systole and diastole between the ribs II to the left of the sternum. Tell me what is missing. What change we can see when the patient is examined objectively. Describe the changes in

tone of the mitral valve is heard. 4). The rhythm of wailing is heard. a) 1-3-4. b) 2-3-4; v) 1-2-4; g) 1-2-3;	electrocardiography.
Conceptual analysis: **The concept of echocardiography examination**	**Practical skills** **Heart rate detection technique**

Assessment 5

Test	**Situational issue**
5. Is the gallop rhythm audible?1). In mitral valve stenosis and I-II tone aggravation.2). III tone or IV tone increase and I-II tone decrease.3). I tone increase and III-IV tone decrease.4). III tone increase and I tone, II tone decrease. a) 2-4; b) 1-3; v) 2-3; g) 1-4. **20. Auscultatory hearing in stenosis of the valve III?**1). II diastolic noise on the right side of the rib cage.2). II systolic murmur on the right side of the rib cage.3). Diastolic noise at the base of the dagger tumor.4). I tone enhancement at the base of the dagger-shaped tumor. a) 2-4; b) 1-2; v) 2-3; g) 3-4.	5- masala Patient M., a 15-year-old girl, was examined by a physician and found to be lagging behind her peers in growth and to have diffuse cyanosis. On auscultation, the doctor found that a systolic murmur was heard on the left side of the sternum between the II ribs. Tell the child what is wrong. Describe the changes in phonocardiography. Describe the changes in the ECG.
Conceptual analysis: **The concept of phonocardiography**	**Practical skills** **Pulse deficit detection technique**

Respiratory tests

TEST

1. Typical for croupous pneumonia stage 2 (razgar); 1). Percussion hoarse sound, auscultatory wheezing. 2). Percussion choking and auscultatory crepitation. 3). Bronchial breathing and percussive tympanic sound.4). Percussion muffled sound. 5). Auscultatory bronchial breathing.

a) 1.4;

b) 2.3;

v) 3.4;

g) 4.5.

2. Specific for lung abscess; 1). Leukocytosis, ECG depletion. 2). Leukocytosis, increased ECG. 3). Percussion on a dull sound abtses. 4). Percussion blunt sound leukopenia. 5). Increased ECG leukopenia

a) 2,3;

b) 2.4;

v) 3.4;

g) 4.5.

3.Typical for dry pleurisy; 1). Auscultatory pleural friction interaction. 2). X-ray diaphragm movement limitation. 3). Crepitation and radiological shadowing. 4). Pleural friction noise, radiological shadow. 5). Pain relief when lying on the patient's side (pleurisy).

a) 2.4.5;

b) 2,3,5;

v) 3,4,1;

g) 1,2; 5.

4. Characteristic for the upper limit of fluid in exudative pleurisy; 1). Linya Damuazo and Rauxfuss Grokk triangle. 2). Garland triangle.3). Rauxfuss Grokk triangle. 4). Linya Damuazo. 5). Garland and Rauxfuss Grokk triangle.

a) 1.5.

b) 2,3;

v) 1.4;

g) 2.4;

5. Specific for bronchial asthma; 1). Thirsty vesicular breathing; 2). Increased vesicular breathing; 3). Palpation sound drill subsided. 4). Palpator sound drills intensified. 5). Percussion-box sound. 6). Percussion tympanic sound.

a) 1,2,5.

b) 1,3,5.

v) 2,4,6.

g) 3,4,6

6. Changes that occur in an asthma attack; 1). X-ray - shadow is visible. 2). The lung area appears bright; 3). Bronchophonia subsided. 4). Bronchophonia intensified. 5). There is an obstruction in the spirography. 6). There is no obstruction on spirography.

a) 1-3-5

b) 2-4-6

v) 2-3-5

g) 1-3-6

7. Indicate the changes in palpation and bronchophonia in croupous pneumonia. 1. Sound drill is reduced. 2. Sound drill is amplified. 3. The sound drill has not changed. 4. Decreased bronchophonia. 5. Bronchophonia intensified. 6. Bronchophonia has not changed.

a) 1.5.

b) 2.5;

v) 1.6;

g) 2.4;

8. Indicate the changes that occur in palpation and bronchophonia in bronchial asthma. 1. Sound drill is reduced. 2. Sound drill is amplified. 3. The sound drill has not changed. 4. Decreased bronchophonia. 5. Bronchophonia intensified. 6. Bronchophonia has not changed.

a) 1.4;

b) 1.5.

v) 2.6;

g) 2.4;

9. Indicate the changes in percussion and auscultation in bronchial asthma. 1. Percussion box sound. 2. Percussion tympanic sound. 3. Percussion muffled sound. 4. Decreased vesicular respiration on auscultation. 5. Vesicular breathing on auscultation. 6. Bronchial breathing on auscultation.

a) 1.4.

b) 2.5;

v) 1.6;

g) 2.4;

10. Indicate the changes in palpation and bronchophonia in pulmonary emphysema. 1. Sound drill is amplified. 2. Sound drill is reduced. 3. The sound drill has not changed. 4. Bronchophonia intensified. 5. Decreased bronchophonia. 6. Bronchophonia has not changed.

a) 1.6;

b) 1.5.

v) 2.5;

g) 3,4;

11. Indicate the changes in percussion and auscultation in pulmonary emphysema. 1. Percussion muffled sound. 2. Percussion tympanic sound. 3. Percussion box sound. 4. Bronchial breathing on auscultation. 5. Vesicular breathing on auscultation. 6. Decreased vesicular respiration on auscultation.

a) 3.6.
b) 2.5;
v) 1.6;
g) 2.4;

Tests of the cardiovascular system

Tests

1. At the apex of the heart I tone decreases? 1). In aortic valve stenosis, cardiosclerosis.2). In extrasystole, mitral valve stenosis. 3). In diffuse changes of the myocardium (myocarditis, cardeosclerosis, dystrophy). 4). All the answers are correct.

a) 1-2;
b) 1-3;
v) 1-4;
g) 1-3.

2. I tone increases at the apex of the heart? 1) .In mitral valve insufficiency. 2) .Mitral valve stenosis. 3). As a result of less blood flow from the left ventricle to the left ventricle. 4) .As a result of excessive passage of blood from the left ventricle to the left ventricle.

a) 1-4;
b) 1-2;
v) 1-3;
g) 2-3.

3. I tone increases at the base of the dagger-shaped tumor? 1). Class III valve stenosis. 2). In stage III valve insufficiency. 3). In extrasystole, the ventricle is less filled with blood. 4). In extrasystole, the ventricle is overfilled with blood.

a) 2-4.

b) 1-2;

v) 1-4;

g) 1-3;

4. II tone decreases in the aorta? 1). In aortic valve insufficiency. 2). In mitral valve insufficiency. 3). In a decrease in arterial blood pressure. 4). In the rise of arterial blood pressure.

a) 1-2.

b) 2-3;

v) 3-4;

g) 1-3;

5. II tone increases in the aorta? 1). In mental agitation, in aortic valve insufficiency. 2). In hypertension, in severe physical exertion, in mental agitation. 3). In mitral valve insufficiency, severe physical exertion. 4). Under the influence of blood pressure, in the tight closure of the aortic valve.

a) 2-4;

b) 1-4;

v) 3-4;

g) 1-3.

6. II tone accent occurs in the lung sitvol? 1). In mitral stenosis, with an increase in blood pressure in the small circulatory system. 2). In the complication of blood circulation in the lungs (emphysema, pneumosclerosis). 3). In an increase in blood pressure within the greater circulation. 4). In the deficiencies of layer III and layer II valves.

a) 1-2;

b) 1-3;

v) 1-4;

) 2-3.

7. Auscultatory changes in aortic valve insufficiency?1). Double tone of trauma, diastolic noise in aortic projection. 2). Double tone of trauma, systolic noise in aortic valve projection.3). Systolic murmur in mitral valve projection and attenuation in II tone aortic projection.4). Double Vinogradov-Dyuroz interaction in the femoral artery, II tone attenuation.

a) 2-3.

b) 1-3;

v) 1-2;

g) 1-4;

8. What are the auscultatory changes in stage III valve insufficiency?1). Systolic noise is based on a dagger-shaped tumor.2). I tone decreased at the base of the dagger-shaped tumor.3). Diastolic noise is based on a dagger-shaped tumor.4). I tone intensified at the base of the dagger-shaped tumor.

a) 2-3;

b) 3-4;

v) 1-2;

g) 1-4;

9. What changes do you see when you look at the heart area?1). Aortic arch pulsation 2 rib interval to the right, heartbeat, heartbeat.2). Right ventricular pulsation is right between 3-4 ribs.3). The pulsation between the heartbeat and the III-IV ribs is to the left.4). Pulsation of the jugular veins (carotid artery) and congestion of the heart.

a) 1-3,4;

b) 1-2;

v) 1-4;

g) 2-3-4 '

10. I tone decreases… at the apex of the heart?1). In mitral valve insufficiency.2). In pulmonary systolic valve insufficiency.3). Mitral valve stenosis.4). In aortic valve insufficiency.

a) 1-4.

b) 2-3;

v) 3-4;

g) 1-2;

Respiratory problems

1 masala

The patient, a 56-year-old male, complained of coughing, fever when coming to the doctor, rapid respiratory rate, shallow breathing. On percussion, the patient had a choked percussion and puncture on the right side to the IV intercostal space. Radiography revealed the presence of a homogeneous shadow up to the IV rib space.

What approximate diagnosis can be made in a patient?

Describe the auscultatory changes in this patient?

What is the change in bronchophonia?

2 masala

The patient was a 35-year-old, sexually active woman who was questioned at the time of admission to the hospital and found to be disturbed by cough, rusty

sputum discharge with cough, fever, shortness of breath, then the patient was examined and the right breast the cage was left behind in the act of breathing, there were rashes on the lips, around the nose, redness of the right cheek areas. Bronchophonia intensified.

Percussion, tell auscultatory changes?

What are the color changes?

3 masala

The patient is 43 years old, male. The inquiry came with the following problems. Dry cough, the presence of stabbing pain in the right chest, the pain intensifies when breathing and the downward direction, complains of a rise in body temperature, when the anamnesis is collected, he considers himself ill for 1 month calculates. X-ray examination of the patient revealed the presence of a homogeneous shadow up to the IV intercostal space on the right side.

What instrumental examination is performed in this patient?

What change do we see when we examine the chest?

Describe the percussion, auscultatory changes in this patient?

Which laboratory tests are acceptable and tell us about the changes?

4 masala

When the patient arrived at the hospital, he complained of shortness of breath, shortness of breath, cough and difficulty in coughing, mucous-foamy sputum secretion, and on auscultation heard dry wheezing and prolonged exhalation. Bronchophonia subsided. Examination of the patient revealed the presence of cyanosis on the lips.

What changes do we see when we examine the chest?

What are palpator and percussion changes?

What functional inspection is performed and what are the changes?

5 masala

The patient is a 43-year-old female, with bronchial asthma, who has been under dispensary supervision at a residential clinic for several years. The patient's problems include shortness of breath, shortness of breath, shortness of breath. On objective

examination, the patient's lips are bruised, and the thoracic auxiliary muscles are involved in the act of breathing.

What are the percussion, auscultatory changes in this patient?

What are the radiological changes?

What are the changes in blood and sputum?

6- masala

The patient, a 29-year-old male, was admitted to the Housing Clinic. When the patient was questioned, he heard a cough and a large amount of purulent sputum, as well as a tympanic sound in the middle part of the right lung during percussion. On auscultation, amphoric breathing was heard at the site.

Tell us about the palpator changes?

What changes can we see on X-ray examination?

7- masala

The patient is 67 years old, male, retired. When he came to the doctor's office, he complained of stabbing pain in the right side of the chest when breathing, and on examination, this side was left behind in the act of breathing, chest asymmetry, dilated ribs, ribs when breathing swelling of the interstitial muscles was observed.

What is your approximate diagnosis?

What are the auscultatory changes?

What instrumental tests should be performed and what might be the results of these tests?

8- masala

The patient is 36 years old. Gender woman. He was found to have been under the supervision of a dispensary at a residential clinic for 18 years. Upon arrival at the doctor's appointment, auscultation and diminished vesicular breathing were heard. The patient was found to have a boxy sound in percussion, a Krenig area shifted upwards and limited lung excursion, and a decrease in the absolute blunt limit of the heart.

What is your approximate diagnosis?

Describe the radiological changes?

What can be the changes in sputum?

9- masala

Patient S., 43 years old, male, suffers from cotton dust and large amounts of harmful factor in his work. When the patient came to the doctor's office, X-rays were recommended, given that the complaints were stabbing pain and dry cough in the chest area. On radiography of the patient, the thoracic cavity is displaced to the left, with a homogeneous shadow between the 4 ribs on the right.

Tell me about the percussion changes?

Describe changes in respiratory sounds on auscultation?

What changes can be seen in the blood test?

10- masala

The patient is 44 years old, male. When he comes to the doctor's office, he complains of increased cough in the morning and a large amount of blood mixed and often purulent sputum secretion. His anamnesis revealed that he had a whooping cough, and the interrogation revealed that the sputum secretion was relieved if the patient was lying on his left side. On percussion, a tympanic sound was heard in the right lung between 4 and 5 ribs.

What auscultatory changes can the patient have?

Describe the radiological changes.

Describe changes in the patient's sputum?

11 masala

The patient is 60 years old, has been working in a ginnery for 35 years and has been smoking for 20 years. The patient has been suffering from cough for 15 years, with sputum secretion and increased shortness of breath, shortness of breath. When the patient was examined, the chest was of the emphysematous type, the ribs were slightly enlarged, and the subcutaneous fat layer was poorly developed. X-ray examination reveals fibrous sclerotic changes. Laboratory tests revealed a slight increase in compensatory erythrocytosis, leukocytosis, ECG. Sputum is mucous-purulent. It contains neutrophils, macrophages.

Describe the palpator changes in the patient

Describe the percussion changes in the patient

Describe the auscultatory changes in the patient

12 issues

The patient is 58 years old and has been smoking for 35 years. He considers himself ill for 12 years. The patient's thinness is evident. The onset of the disease began with a slight cough, followed by sputum secretion and shortness of breath in recent years. In the beginning, sighing was annoying in physical exertion, and now it is intensifying even in a calm state. On examination, the patient was thin, the skin was yellowish, the chest was barrel-shaped, and the lumbar fossa was flattened. Laboratory tests revealed a slight increase in compensatory erythrocytosis, leukocytosis, ECG. Sputum is mucous-purulent. It contains neutrophils, macrophages.

It is preferable to conduct any tests to determine the diagnosis.

State the auscultatory changes.

Name the radiological changes.

Issues related to the cardiovascular system

1- masala

Patient K., a 34-year-old male, under the supervision of a dispensary, told the doctor that he had been walking with high blood pressure for many years, had occasional headaches, and sometimes noise in his ears. when forgiven, a scattered heartbeat and a shift to the left were observed.

Describe percussion and auscultatory changes.

What are the changes in pulse.

What is the change in the ECG and what is the change in the heart.

Describe the changes in FKG.

2- masala

Patient R., 57 years old, professional driver. Upon arrival at the doctor's office, he was examined and hyperemia of the temporal area and pulsation of the temporal artery were observed, and auscultation revealed a second tone accent and systolic murmur to the right of the sternum between the second rib and a decrease in the first tone of the heart.

State the approximate diagnosis of the patient.

What changes can be expected when examining the palpator and percussion.

Issue 3

Patient Sh. 34 years old. Sex is male. When asked about the appointment, the doctor said that he had pain in the heart area, shortness of breath, fever, dysphagia

and hiccups, and that the patient had a Stokes collar, ie neck, shoulders, chest. a tumor was found in the upper part of the skull.

Describe the palpator changes.

Describe the radiological changes.

4- masala

Patient S., 53 years old, male. When asked at the doctor's appointment, he was stabbed in the heart, sometimes disturbed by noise in the ears, the objective heartbeat was hard and shifted left and down, redness of the face and temples, and high blood pressure. 'lchandi 185/115 mm sim. ust. equality was determined.

Make an approximate diagnosis of the patient.

State the changes in auscultation and pulse.

What changes can be seen on the ECG.

5 - masala

The patient was 56 years old, when he went to the doctor's office, there was a tingling, sometimes stabbing pain under the sternum, and the pain appeared after physical exertion, and this pain lasted for 15-20 minutes, left bo yin, shoulder, hand, shoulder area, palpitations, complained of shortness of breath, pain may be relieved for a while or take nitroglycerin preparations. On the ECG, the heart rate was 88 beats, the R amplitude was decreased, and the ST segment was 2 mm above the isoline.

Make an approximate diagnosis of the patient.

Describe the etiology and cause of the disease.

What instrumental inspection is preferred.

Thematic photos

 Bladder palpation technique;

 Bladder percussion technique;

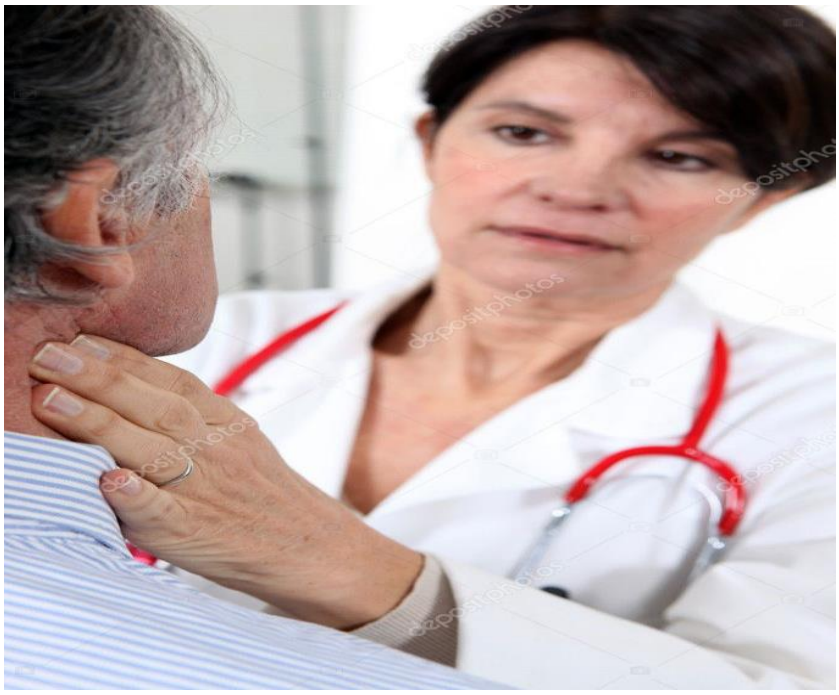
 Painful points in the urethra;

a) The apex is at the level of the umbilicus at the outer edge of the rectus abdominis.

b) The lower point is located at the level of the lateral bone crown at the outer edge of the rectus abdominis muscle.

 a) Palpation of the upper part of the right urethra.

  The technique of palpation of the descending small intestine is a) monomanual b) bimanual

 Cervical lymph node palpation technique.

 Kidney palpation technique.

 Palpation of the submandibular lymph nodes.

 Superficial palpation of the abdomen


a) Kidney palpation technique;

b) Technique of pelvic palpation;

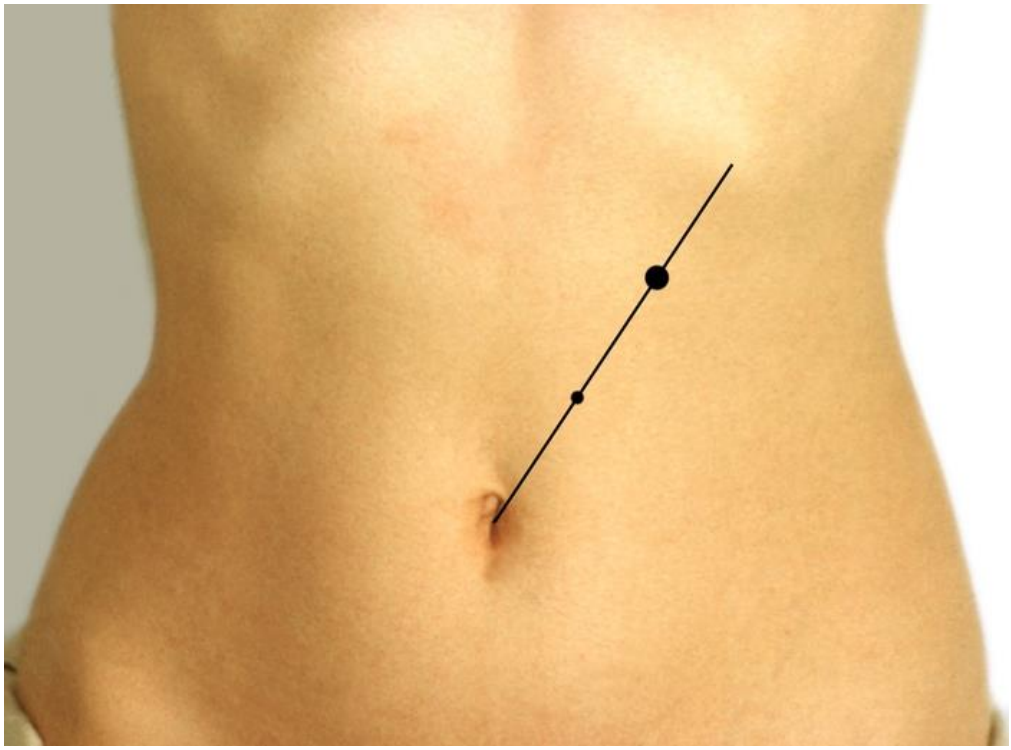
 Technique of superficial palpation of the abdomen

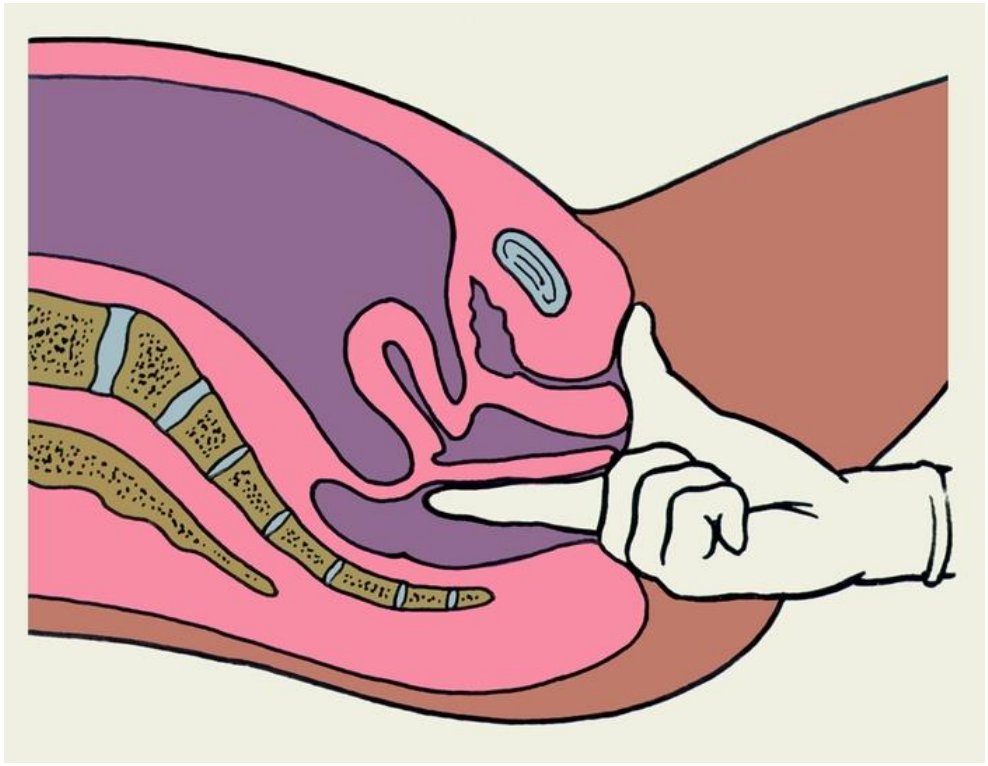
Palpation of the right flank;

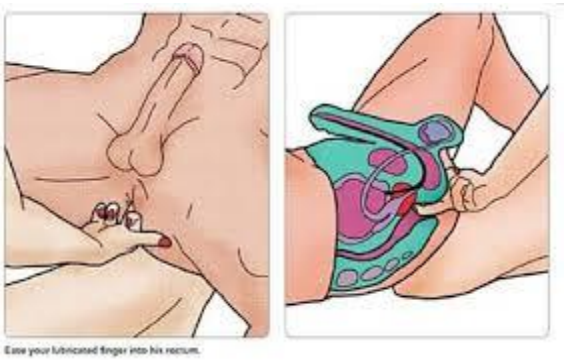

Technique of palpation of the lateral area of the sigmoid colon;


Technique of detection of convulsive symptoms (determination of ascites fluid);


(Technique of detection of convulsive symptoms (determination of ascites fluid);)

 Points of palpation of the pancreas in the Mayo-Robson method;   Technique of bimanual palpation of the abdomen;

 Rectal palpation technique (internal palpation);



Rectal palpation technique (internal palpation);

Prostate palpation technique (internal palpation);

Pulsni palpatsiya qilish texnikasi;

Palpation of the chest from the anterior surface

Palpation of the chest from the anterior lower lateral surface

Palpation of the chest from the lower axillary region

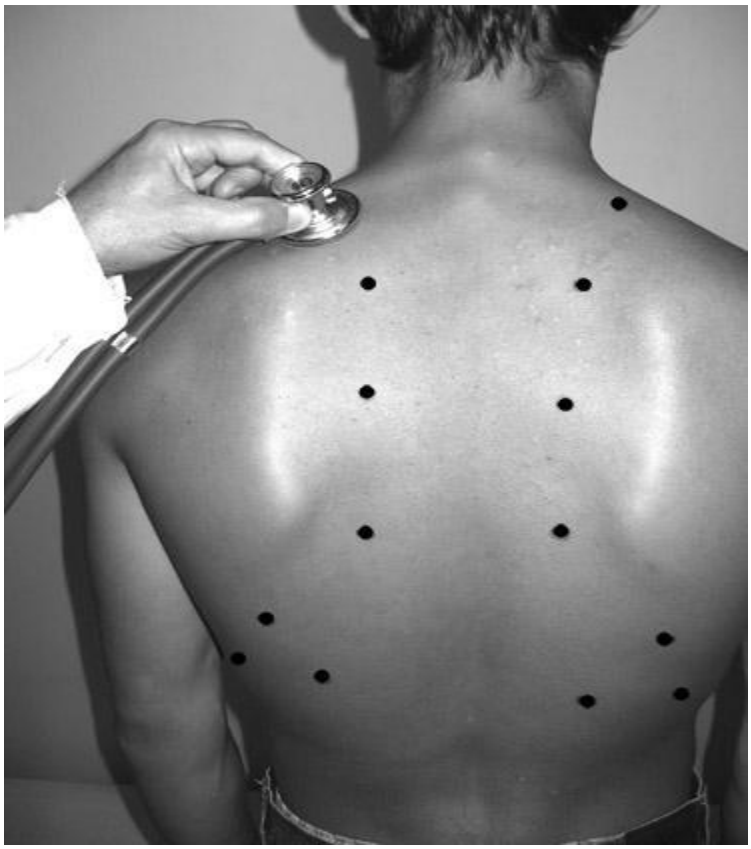
Palpation of the chest from the posterior surface of the interscapular region

Palpation of the chest from the posterior surface of the upper lobe of the lung

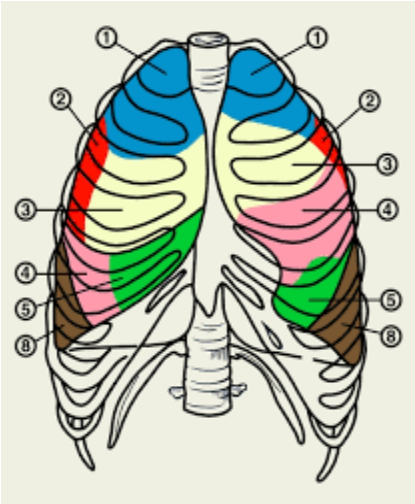
Palpation of the chest from the posterior surface of the lower scapular region

The first method of auscultation was introduced into medical practice in 1819 by the French clinician Rene Laenek

Technique of auscultation of the lungs from the posterior surface of the chest



Auscultatory points of the lungs from the posterior surface of the chest



Auscultatory points of the lungs from the anterior surface of the chest

O'pkani eshitish tartibi ko'krak qafasining old va orqa tomonidan

The order of auscultation of the lungs from the anterior surface of the chest

Проекция грудной клетки на поверхность туловища

1- надключичная ямка

2 - яремная ямка

3 - ребра

4 - реберная дуга

5 - мечевидный отросток

6 – край грудино-ключично-сосцевидной мышцы

7 – трапециевидная мышца

8 – ключица

9 – клювовидный отросток лопатки

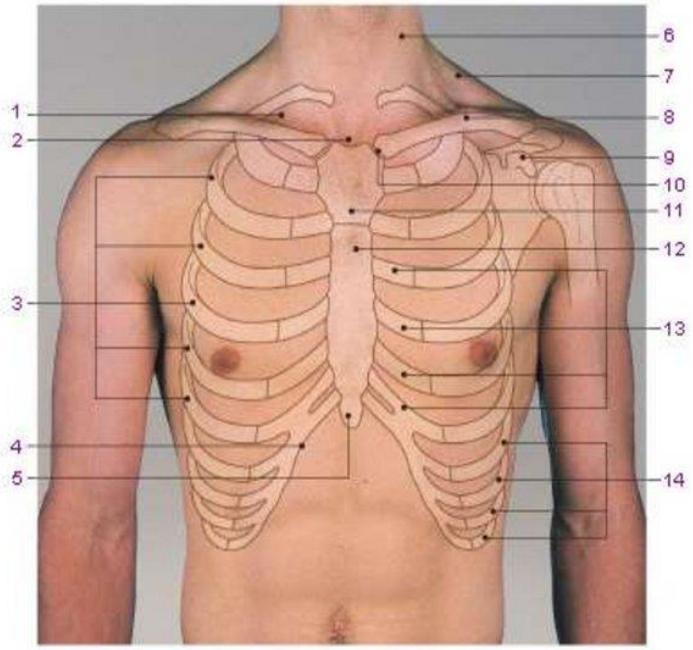
10 – грудино-ключичный сустав

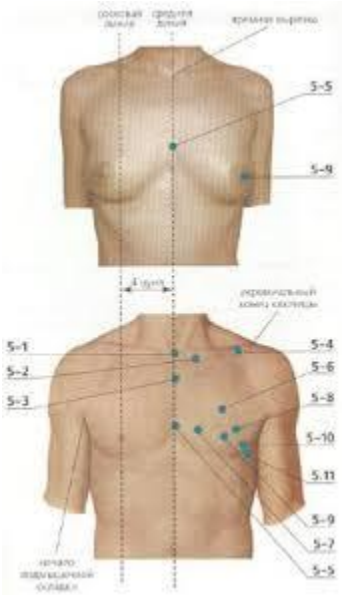
11 – рукоятка грудины

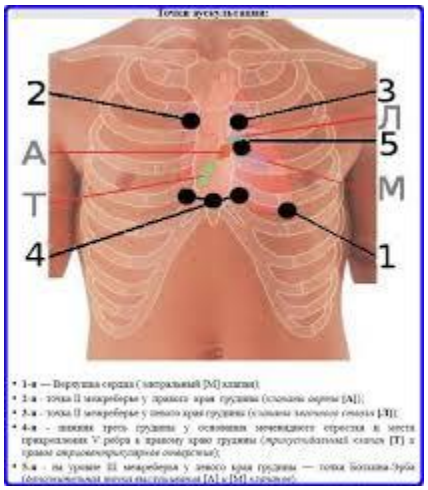
12 – тело грудины

13 – хрящи ребер

14 – VII, VIII, IX, X ребра







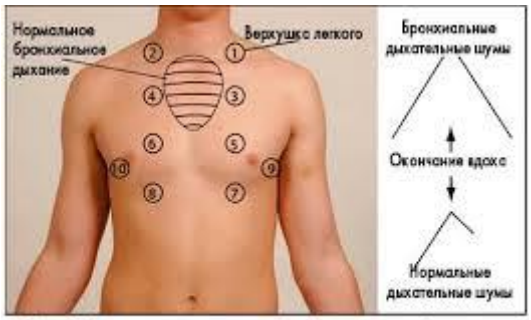
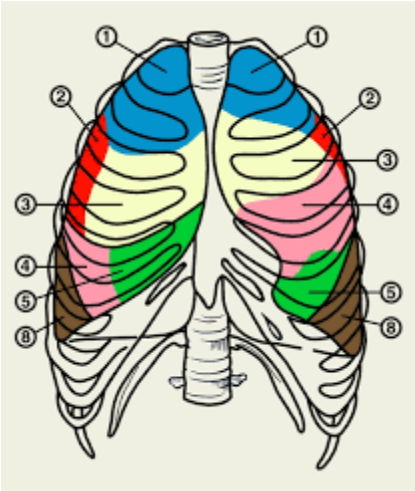


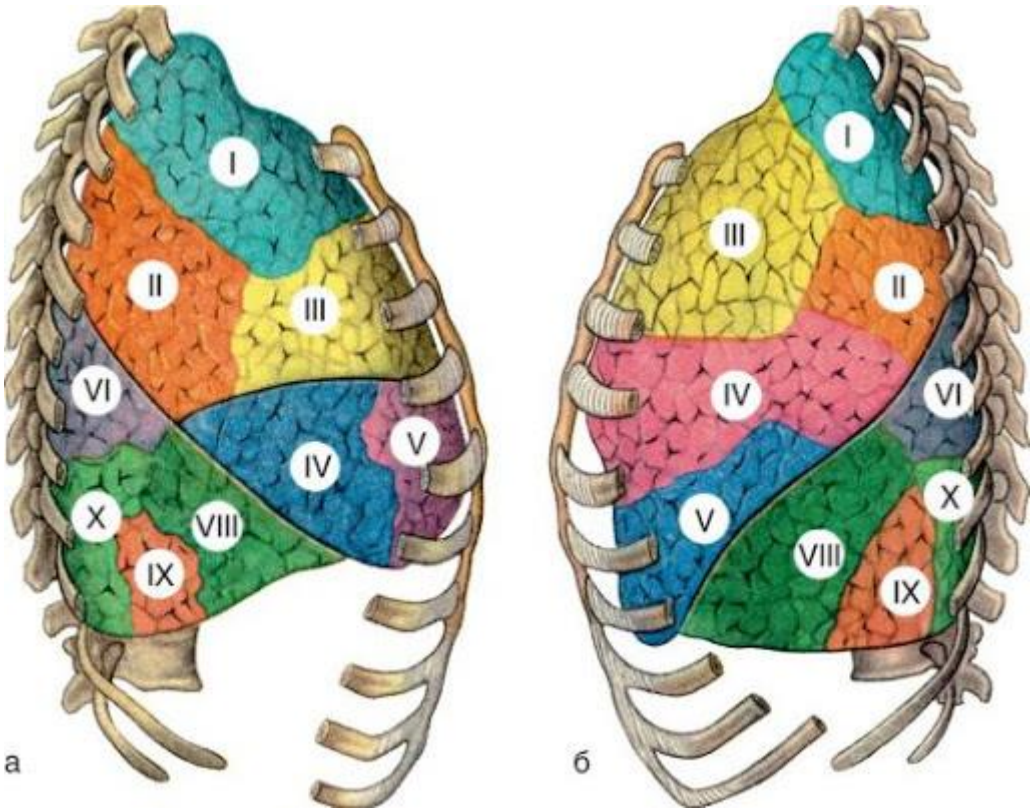
Рис. 1. Локализация везикулярного (нормального) дыхания и физиологического бронхиального дыхания на передней части грудной клетки здорового пациента (J. Gleadle) [6]

The order of listening to the upper lobe of the lung from the anterior surface of the chest

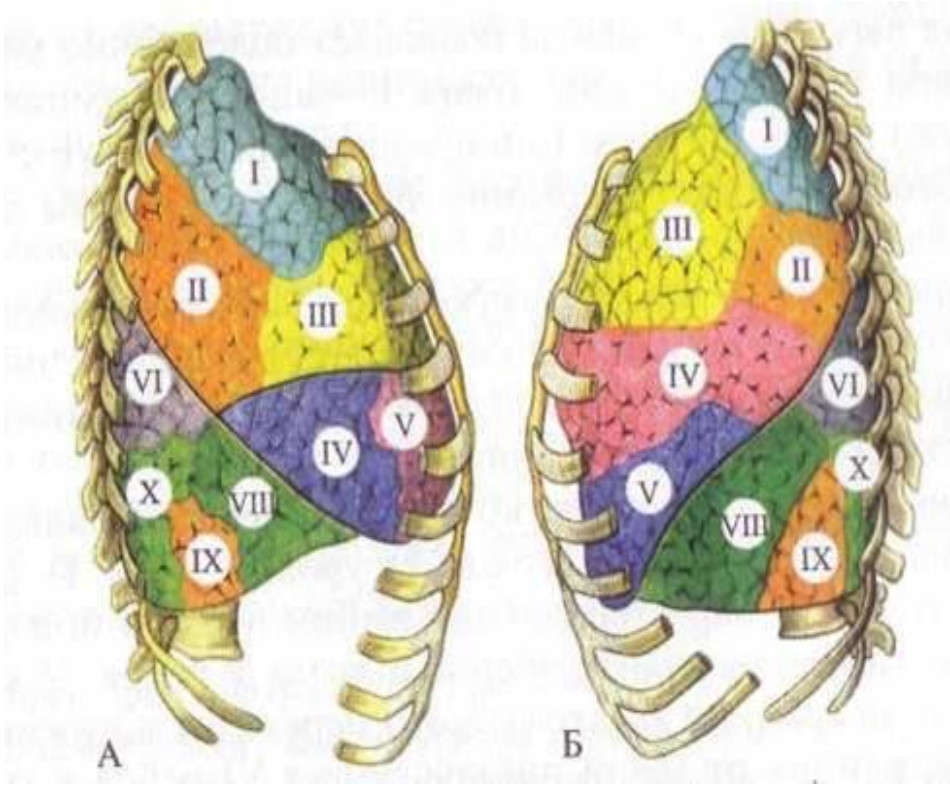
The order of listening to the upper lobe of the lung from the back of the chest
Cells



Places of placing the phonendoscope along the intercostal spaces



The location of the lung segments in the chest from the anterior surface of the chest



The location of the lung segments in the chest from the lateral surface of the chest

The order of listening to the upper lobe of the lung from the back of the chest

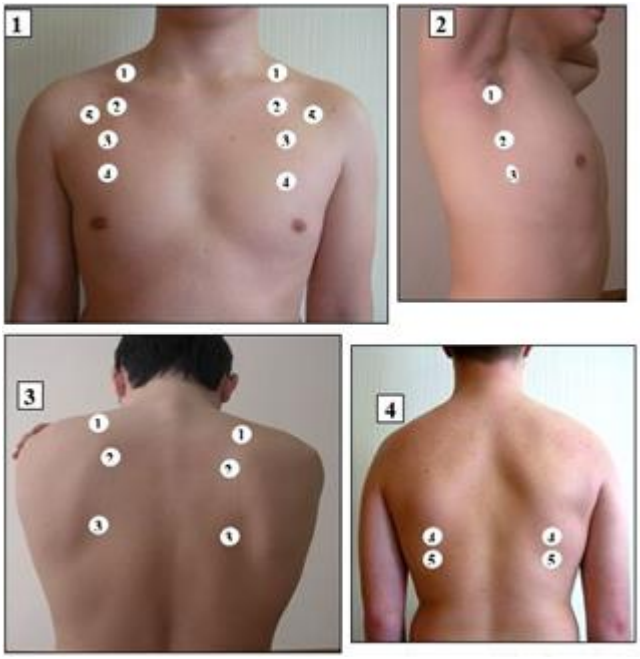
cells

The order of listening to the upper lobe of the lung from the back of the chest
Cells

The procedure for listening to the fetal heart

The procedure for listening to the fetal heart

Auscultation points of the lung from the anterior surface of the chest A and from the posterior surface of the lungs B. To listen to the posterior surface of the lungs, the hands are folded and pressed to the chest, while the scapula is pushed outward and the lungs are well listened to.



The order of hearing of the lungs and the points of hearing are 1 in front, 2 in the axilla and 3-4 in the back.

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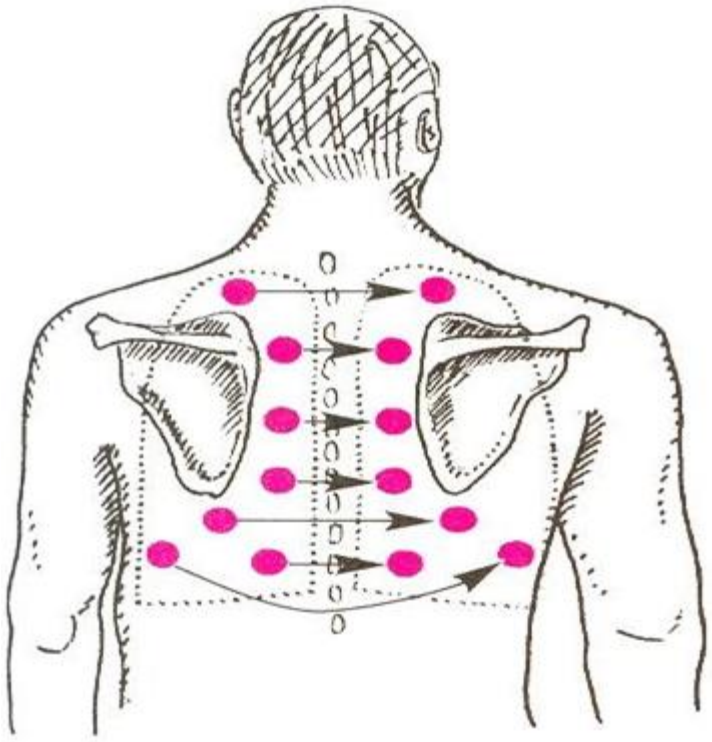
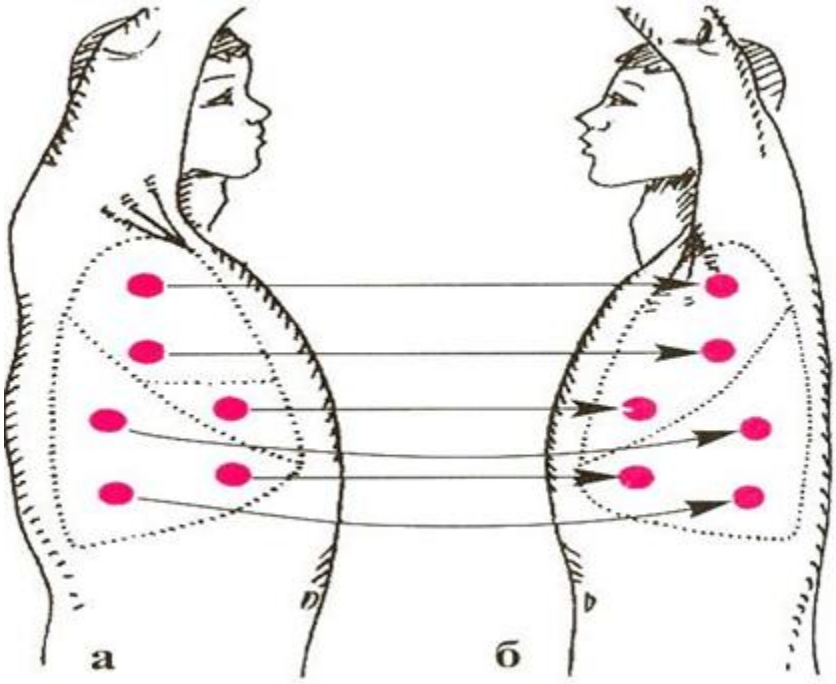


Sequence of posterior auscultation of the lungs

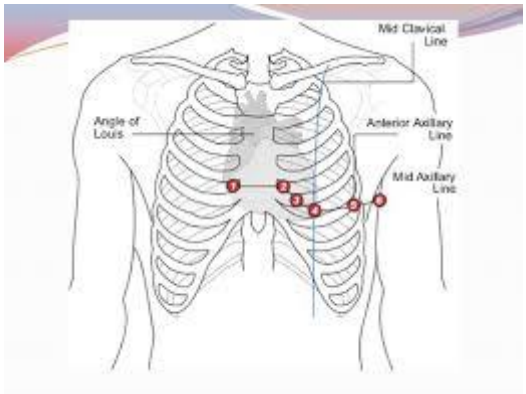


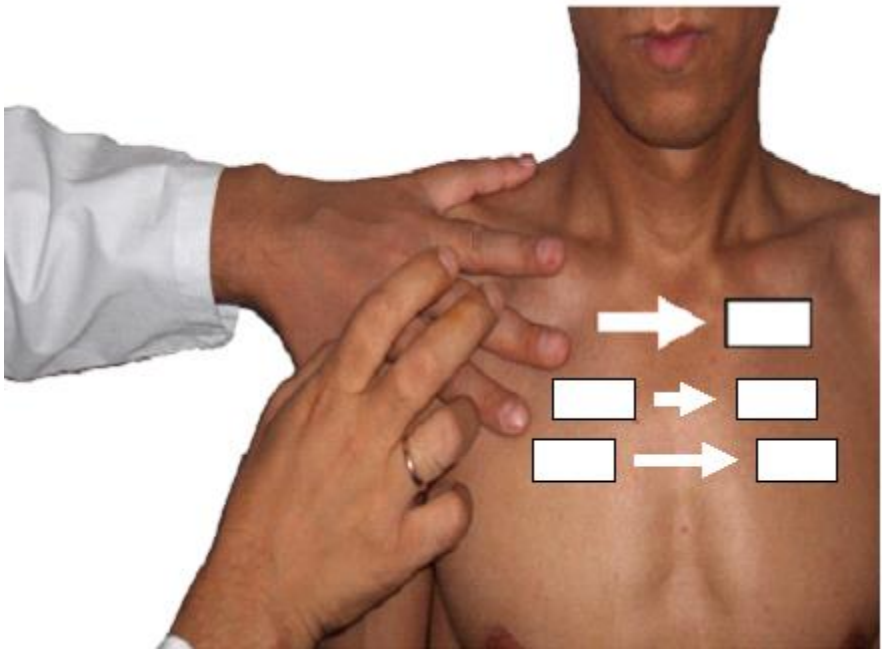
Sequence of auscultation of the lung from the right side a and from the left side b

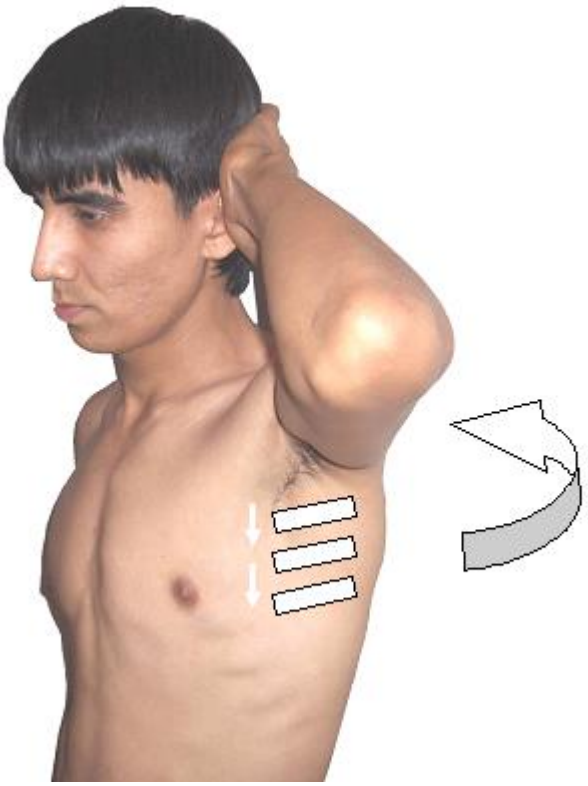
The order, sequence, and location of the plexiglass finger percussion from the back of the lungs

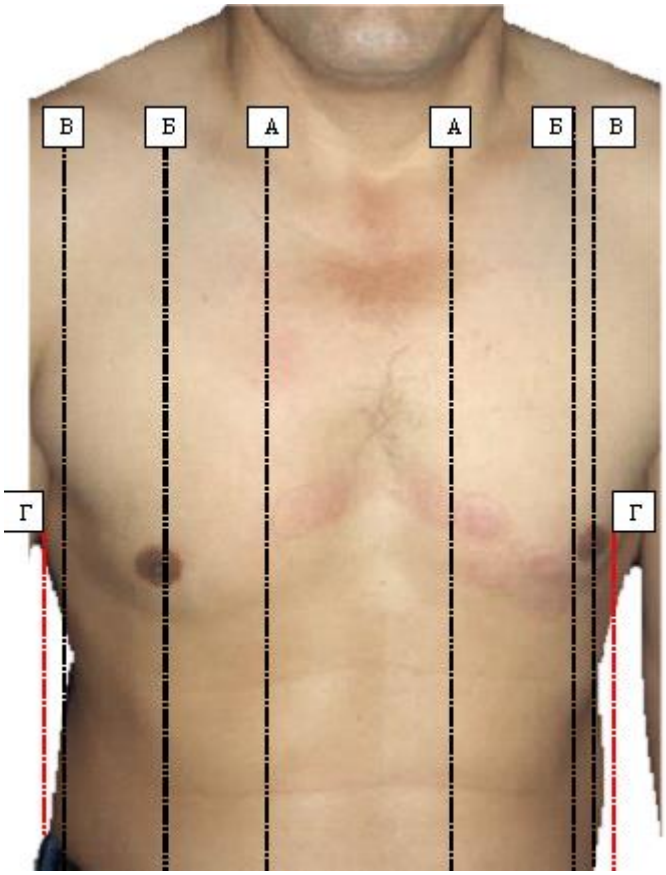
The order and sequence of percussion of the lungs from behind and the place of placing the finger of the plessimeter during percussion

© Can Stock Photo


Mid Clavical Line
Angle of Louis
Anterior Axillary Line
Mid Axillary Line



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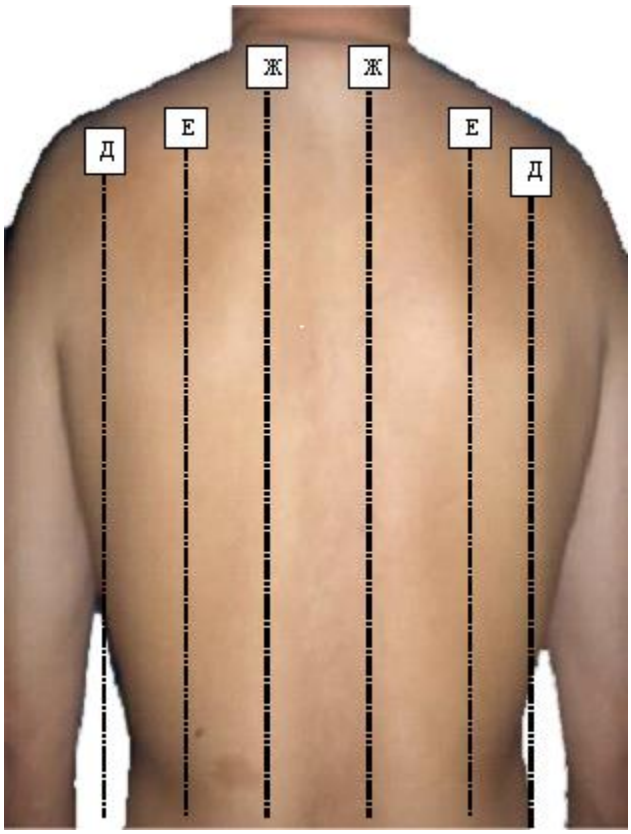
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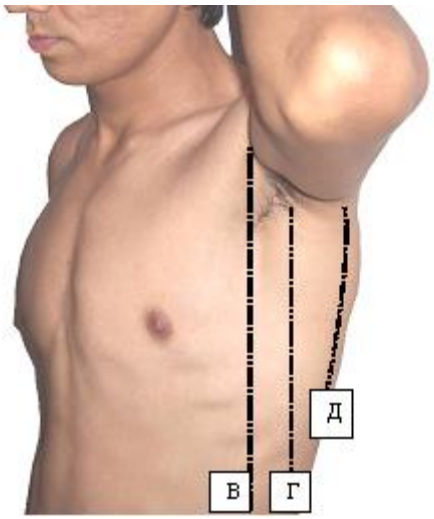
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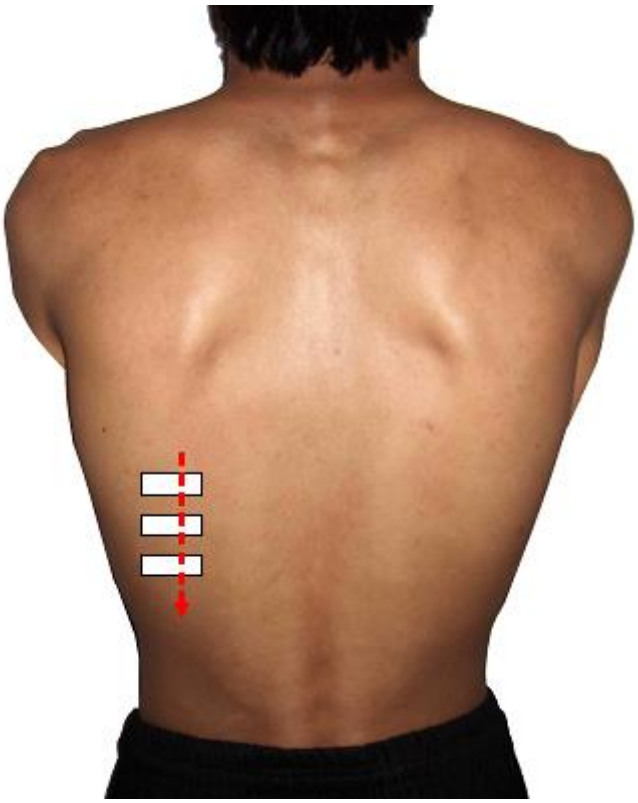
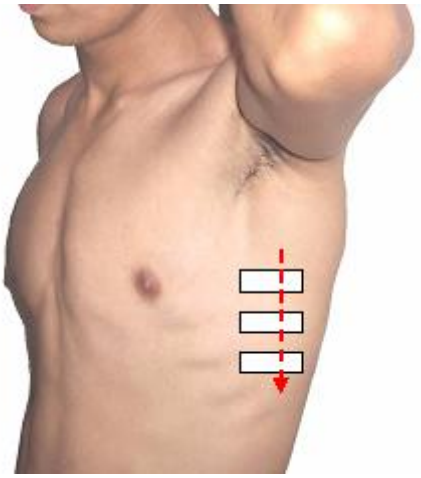
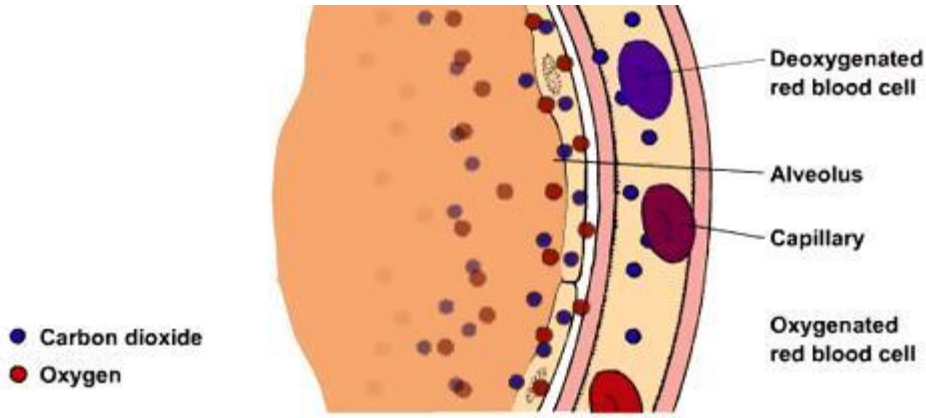
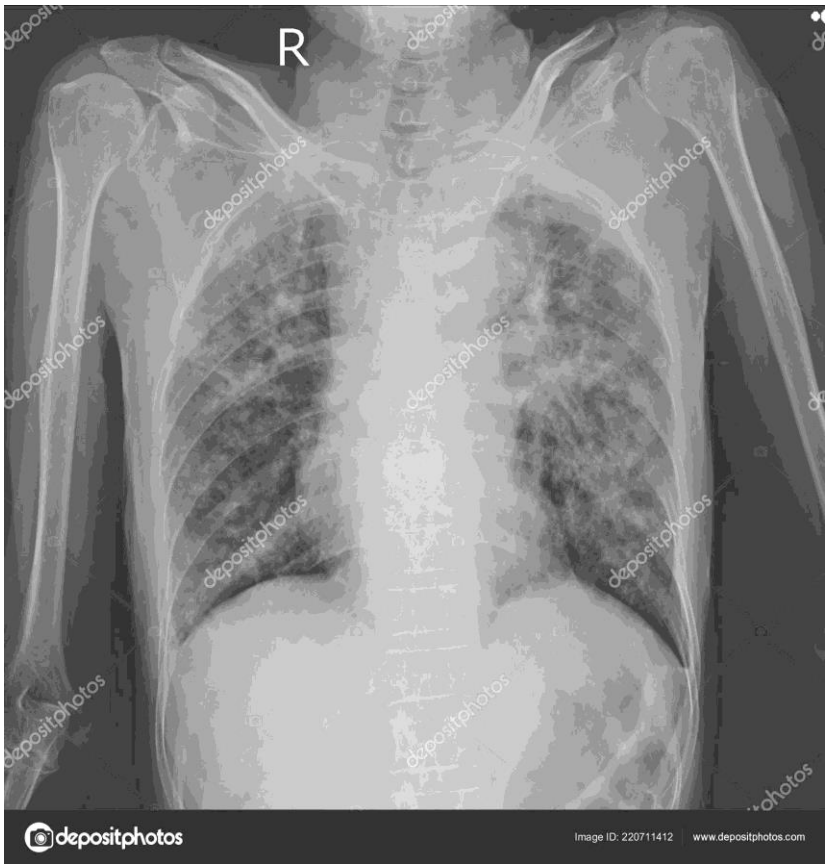






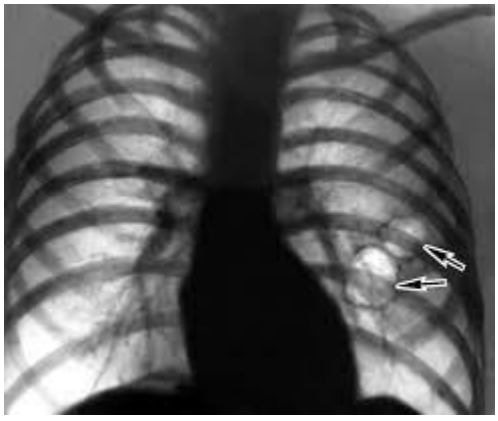
Gas exchange in the alveoli and capillaries

X-ray images related to the subjects

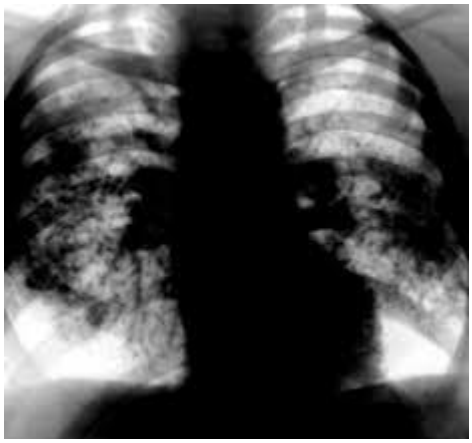


Pulmonary tuberculosis

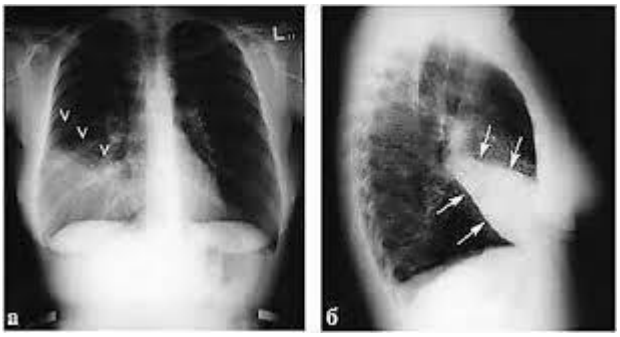
Tuberculosis is mild

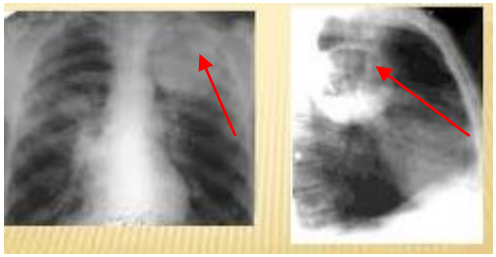

Pulmonary emphysema

Emphysema is mild

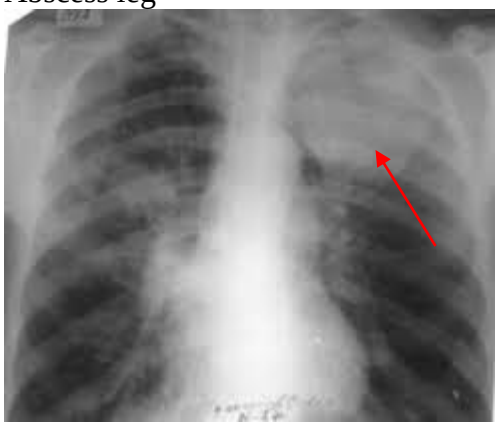

Pulmonary sarcoidosis

Carcoidosis is mild

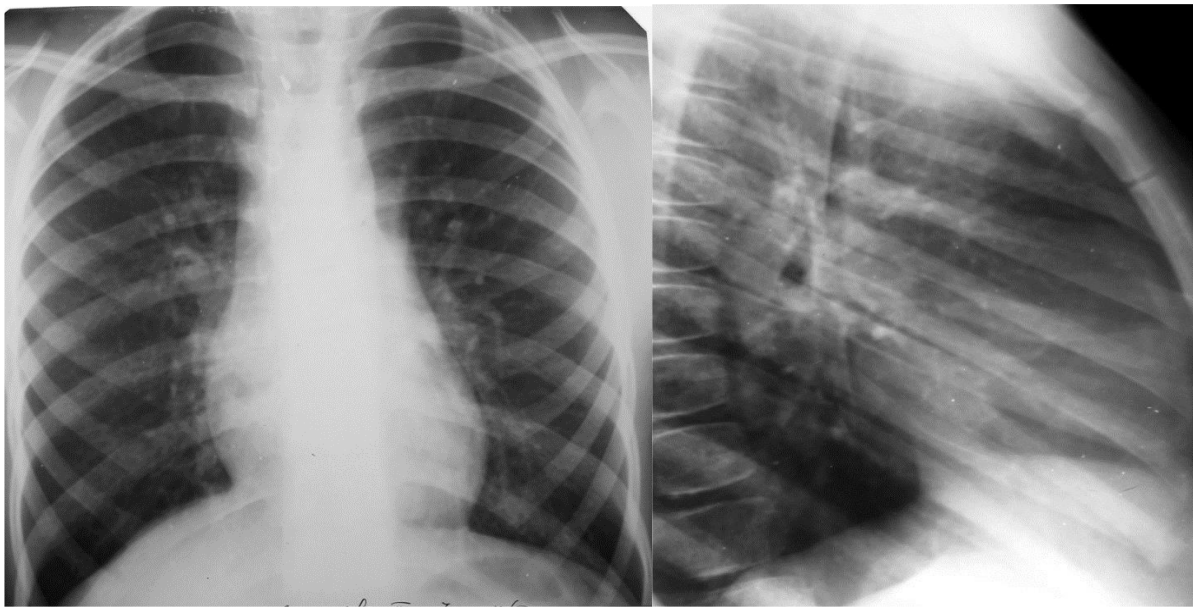


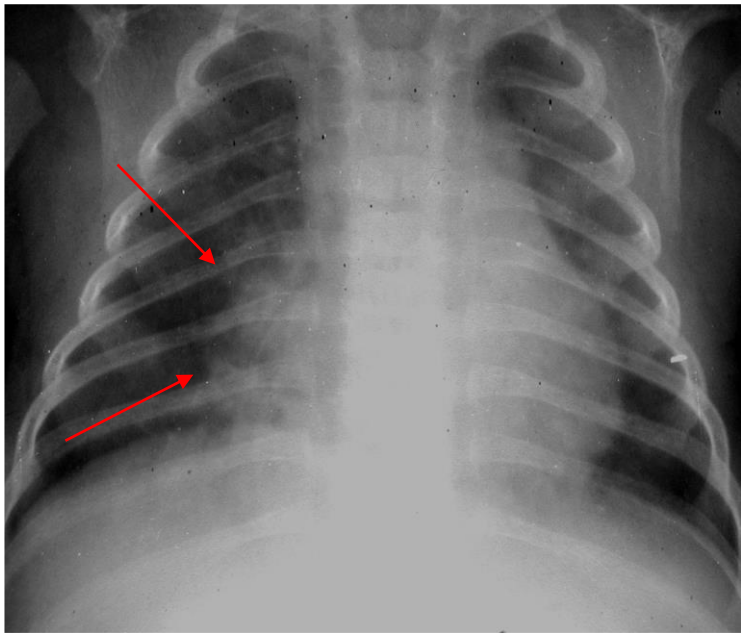

Lung abscess

Abscess leg

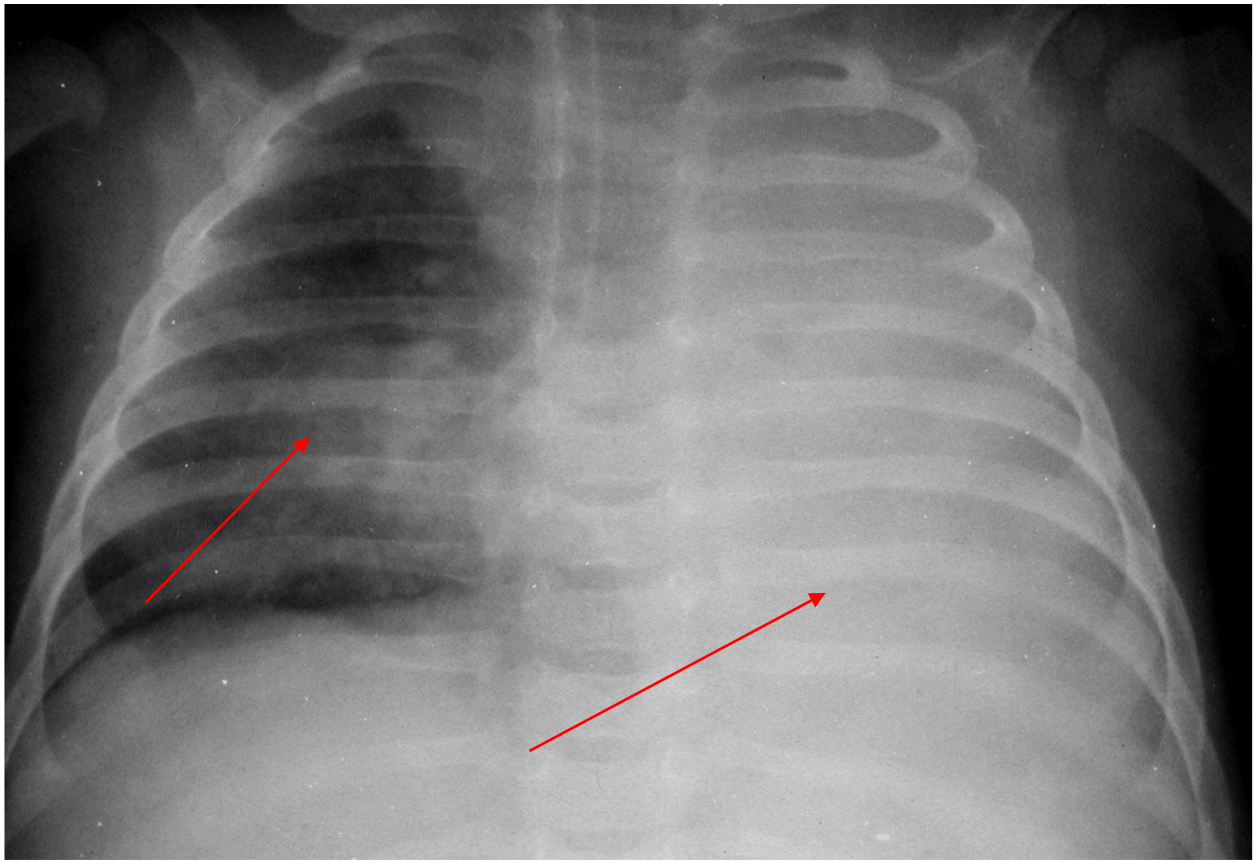

Lung abscess

Abscess leg

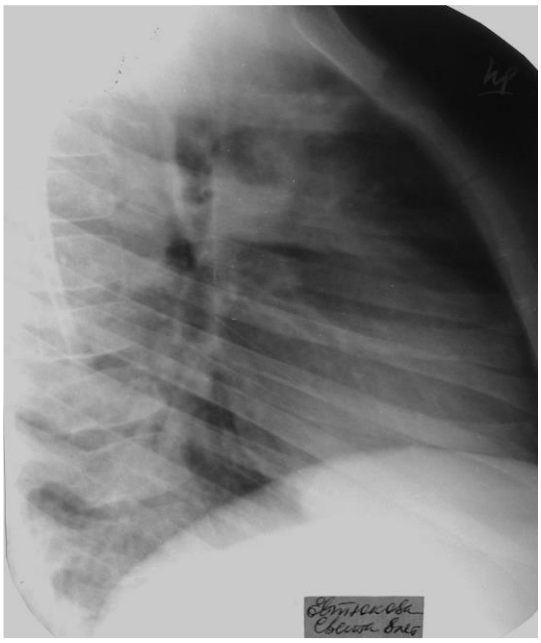

The patient had bronchitis on radiography.

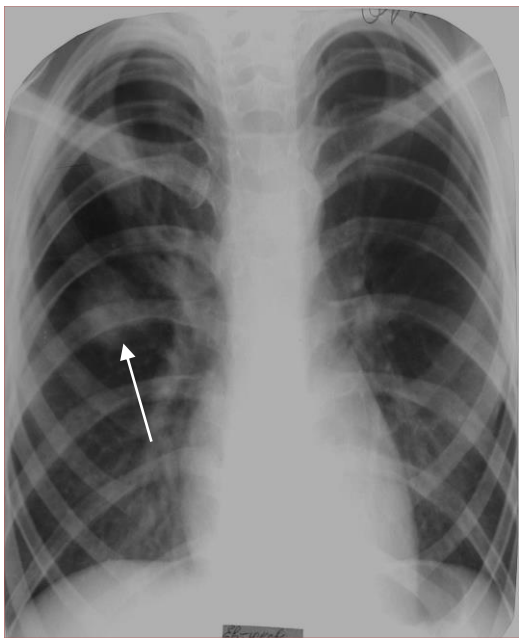


Pre-existing pneumonia

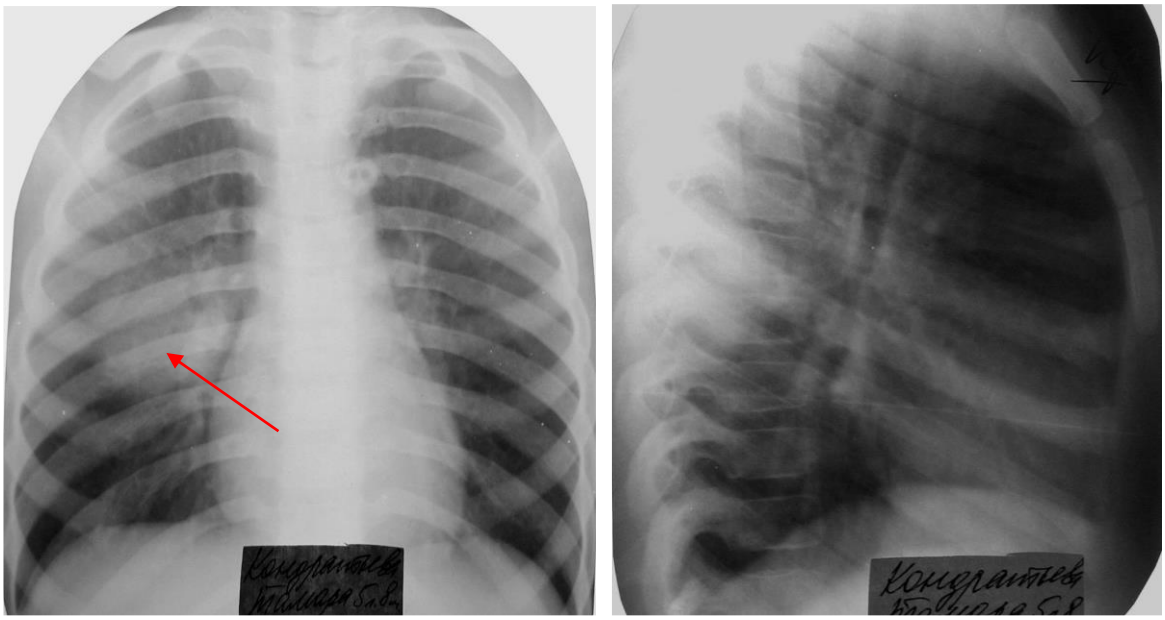


Left lung atelectasis is complicated by pneumonia.



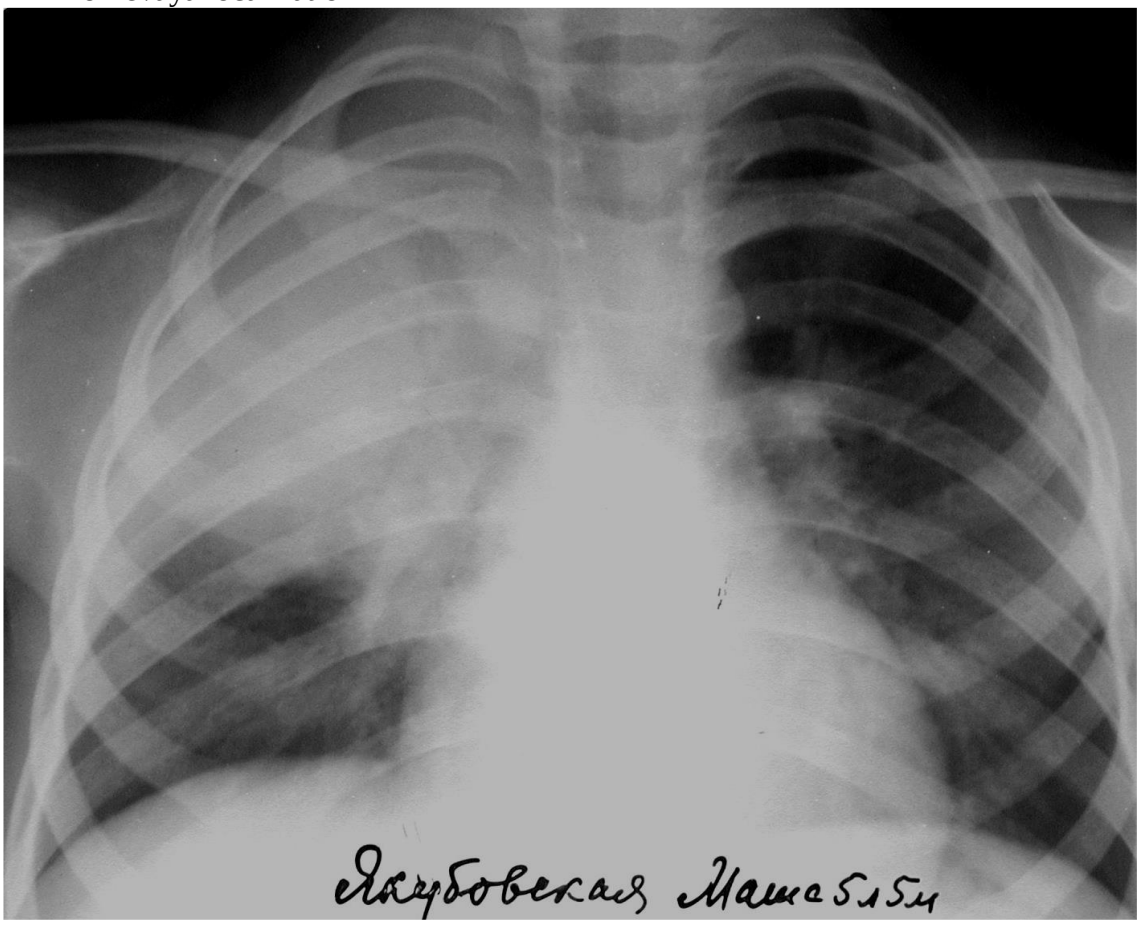


This shadow is a sign of pneumonia.
«Fokus» infiltratsii pryamoy priznak ochagovoy pnevmonii

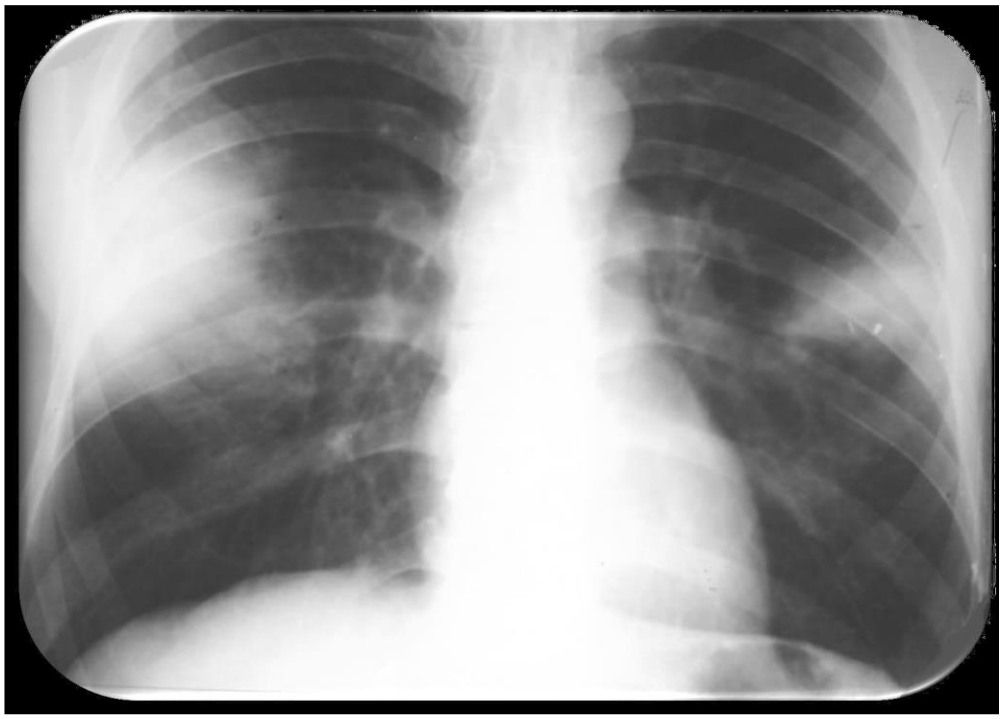


6 Radiological signs of segmental pneumonia

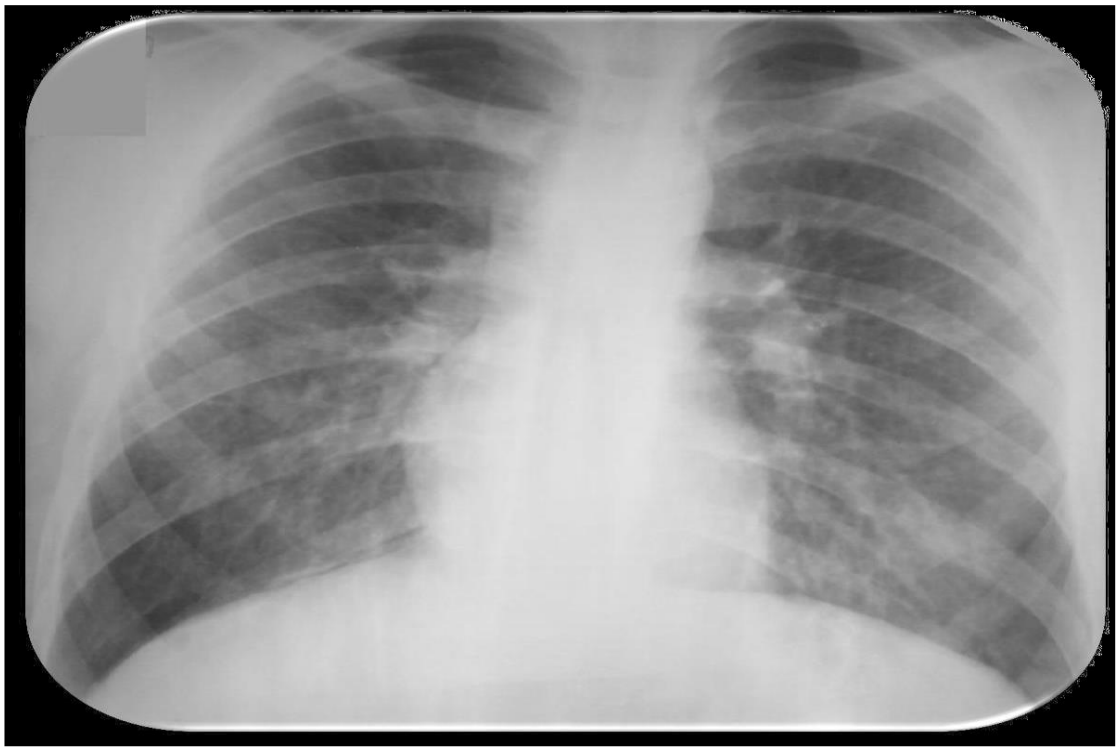
Prikornevaya localization



Bulakli (Dolevaya) pneumonia.



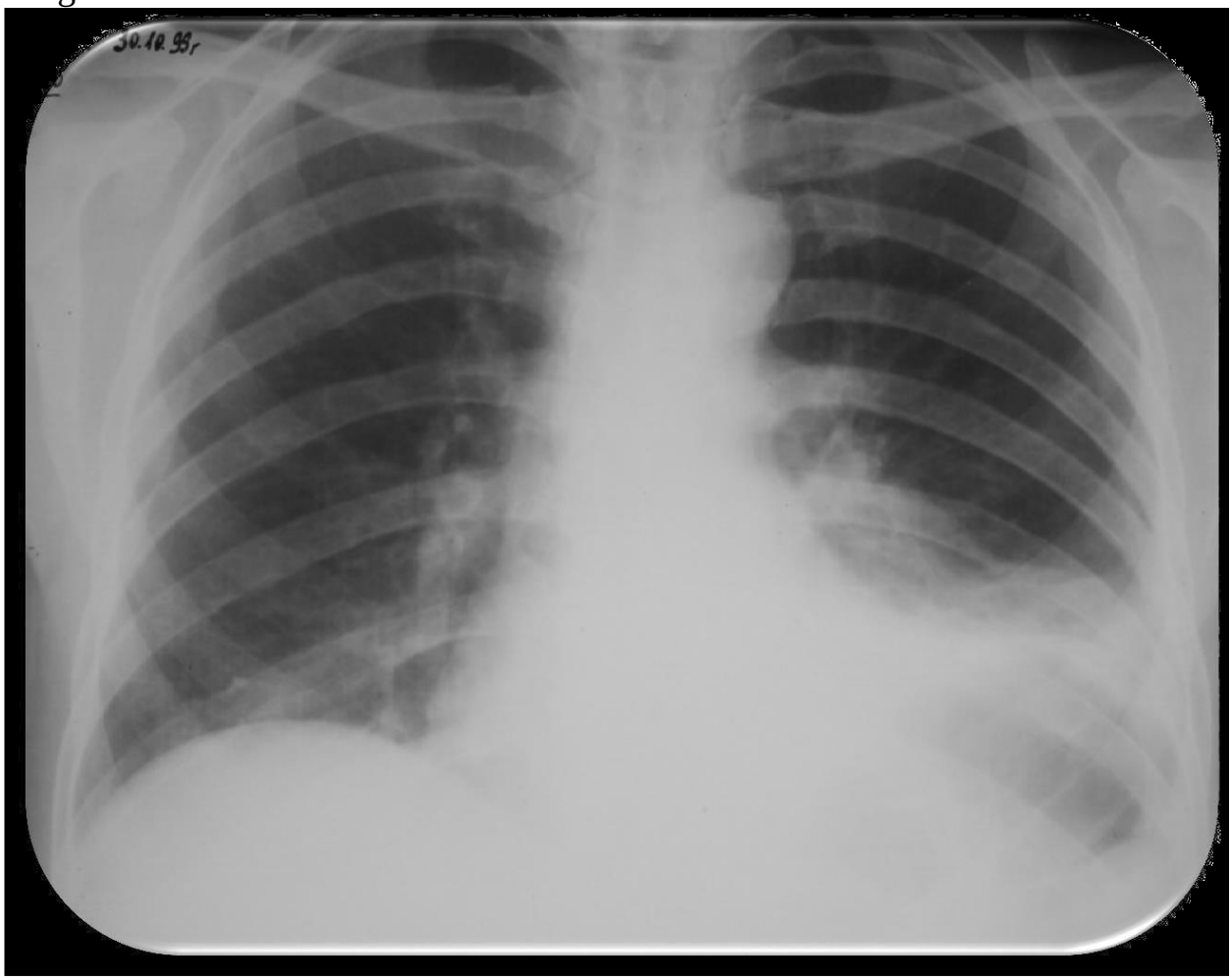
Rentgen tasvirda ikki tomonlama slivnoy pnevmoniya tasvirlangan



X-rays showed post-influenza interstitial pneumonia. In the anamnesis of this patient, influenza was detected. On day 7 of the illness, the patient had a body temperature of 40 ° C, a dry cough, and severe respiratory failure. On auscultation, wheezing is heard.

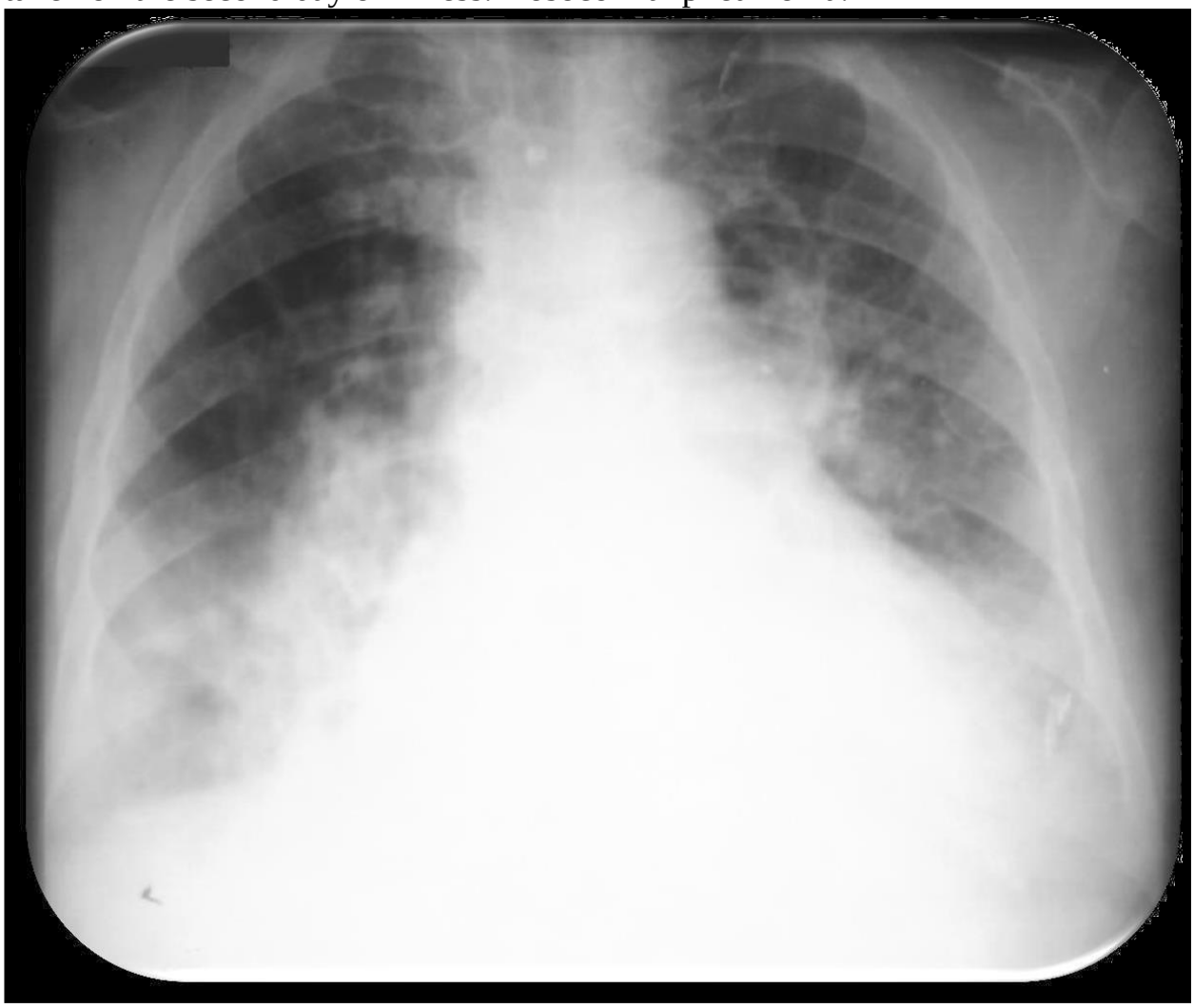
An X-ray shows a lung tumor

Toxic lung tumor. The third day of illness. The patient has a dry cough.

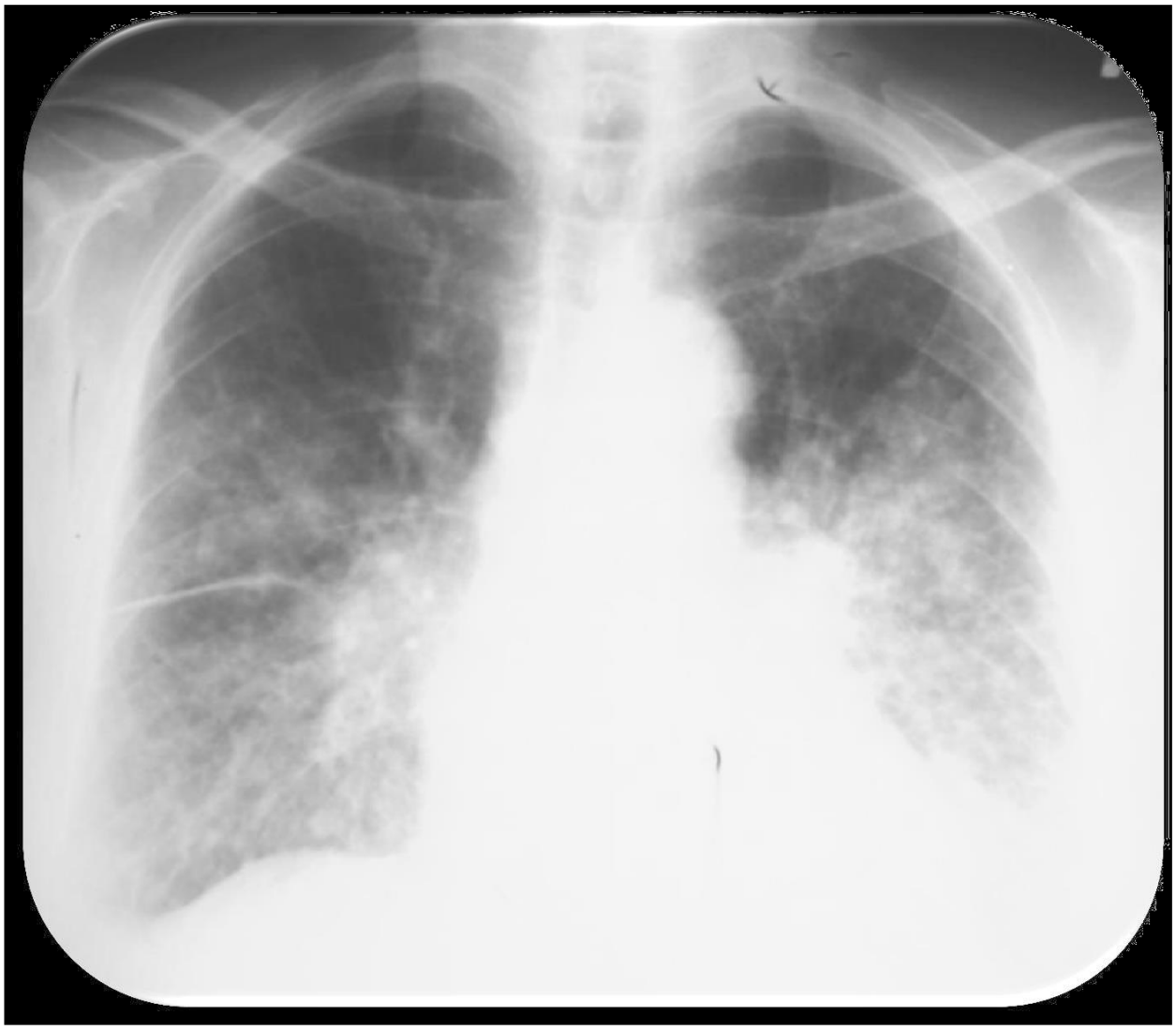


The patient suddenly developed pain in the left side of the chest, was disturbed by shortness of breath, spitting up blood, and the body temperature rose to 38 ° C. In the anamnesis, he underwent surgery on a small pelvis 2 weeks ago. This photo was

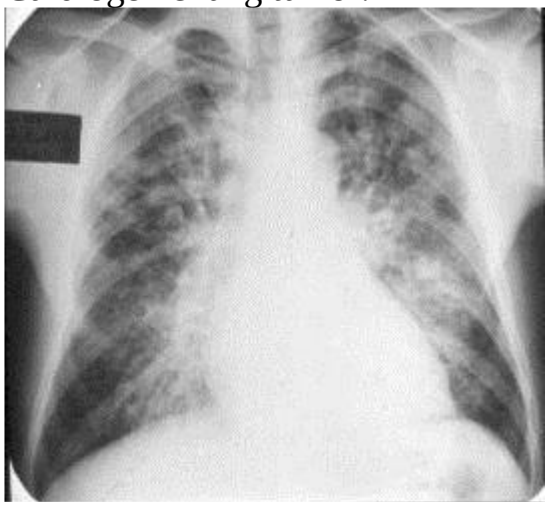
taken on the second day of illness. Nosocomial pneumonia.



Bilateral pneumonia.

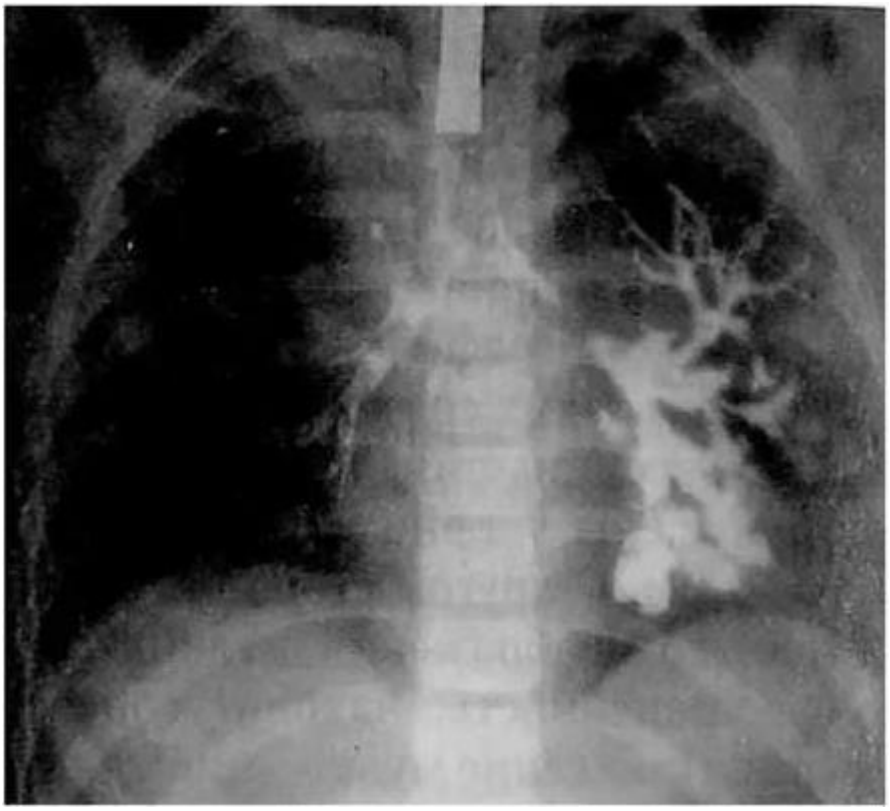


Cardiogenic lung tumor.

 Interstitial pneumonia

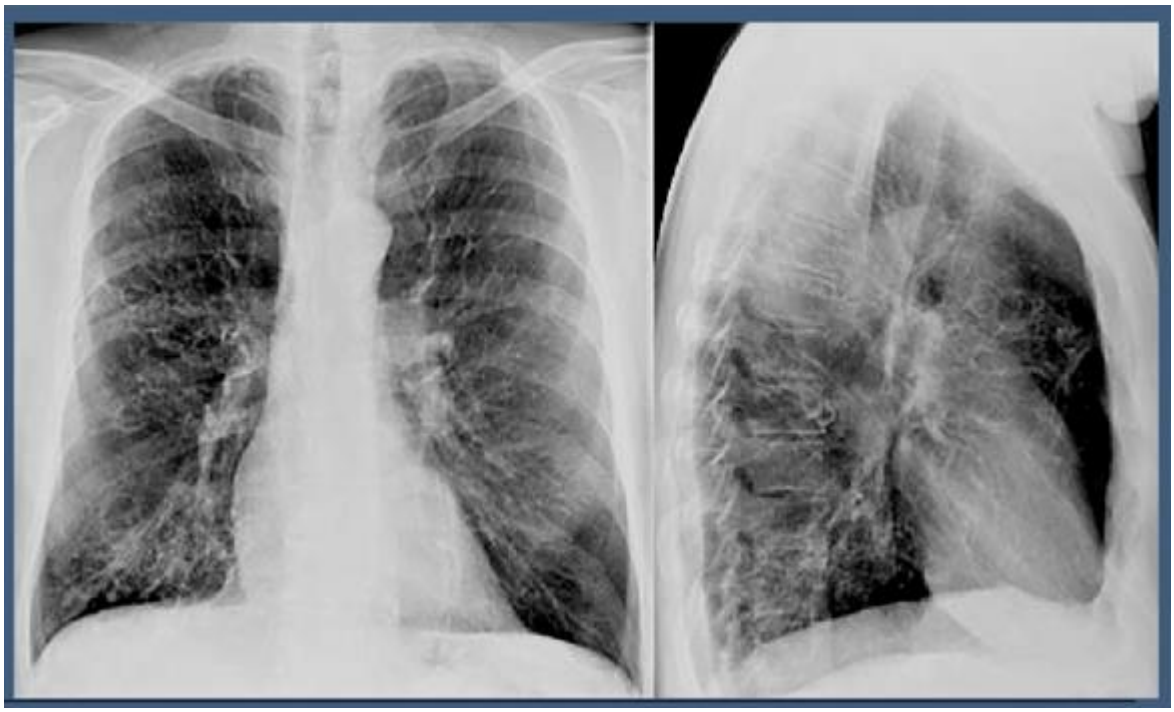
Interstitial pneumonia

II. Bronchiectasis



Bronchography examination method. Bronchiectasis.

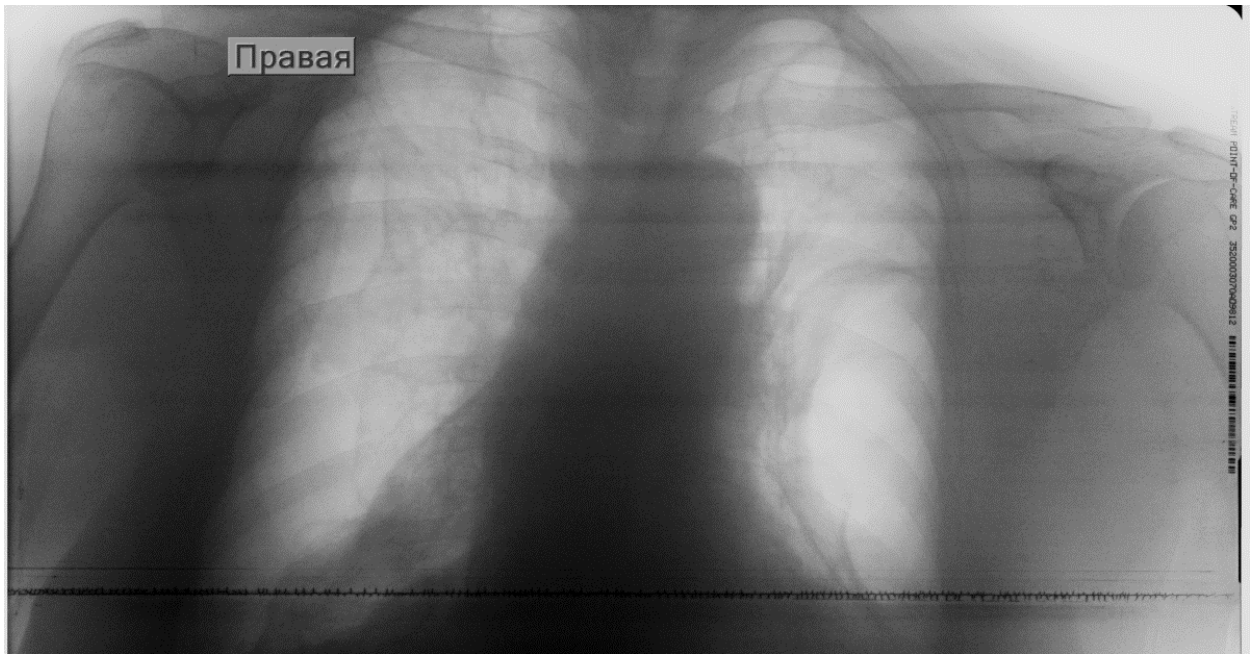
Bronchogram. The X-ray showed bronchial bronchiectasis in the lower part of the left lung (side view of the radiograph).



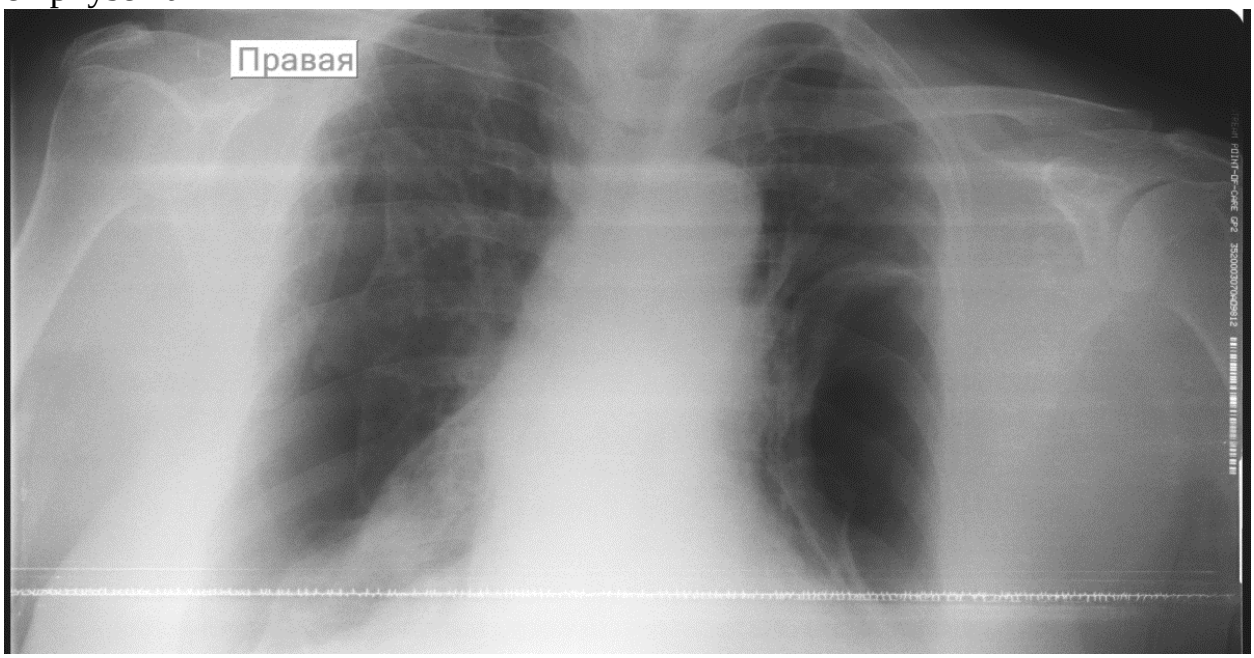
Bronchiectasis

Bronchiectasis

An abscess in the right lung



Bullous
emphysema



Bullous emphysema

3. Practical training materials

Practical training №1

Introduction. History of the development of internal medicine. The science of propaedeutics of internal medicine. Purpose, tasks. Fundamentals of medical deontology. Counseling skills.

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training
Practical training plan	1. The task of the science of internal medicine propaedeutics patients. Verification procedure. The concept of medical

	deontology. Scheme of the medical report, methods of clinical examination of patients: interrogation, examination, palpation, percussion, auscultation. Patient complaints: primary, grade 2. Current medical history, life history..
The purpose of practical training:	To studentsthe task of the science of propaedeutics of internal medicine, the order of examination of patients, to form an understanding of medical deontology.
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. . Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	1. Controls the cleanliness of the audience 2. Checks students' readiness for classes 3. Controls attendance	
1. Introductory phase of the training (10 minutes)	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
2 - the main stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment 5. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. What is the main function of applied medicine?
2. What is the disease?
3. What causes of the disease do you know?
4. What is diagnosis and diagnosis?
5. What is dentistry?
6. What medical documents do you know and when will they be filled out?
7. What is a symptom?

8. What symptoms do you know?
9.Which complaints are the main and which are the additional complaints?
10. What should be identified in the inquiry into the development of the disease?
11.Which points of the patient's life history are included?
12. What is the purpose of obtaining an allergic history?
13. What is the method of palpation?
14. The diagnostic value of the method of palpation?
15. What is the method of percussion?
16. The diagnostic value of the percussion method?
17. To give an idea of the method of auscultation?
18. The diagnostic value of auscultation?

Brainstorming method

Basic rules:

- Not to mention the flaws that hinder the emergence of the idea
- The height of ideas and thought, because the more unusual an idea, the better it is
- Accepting many offers
- Combination of ideas and their development
- To present the idea succinctly without argumentation
- Divide the group into two: thought generators and thought analysts

This method allows you to argue ideas and opinions, your own personal opinion, to find the optimal solution in any situation.

Physician and patient attitudes.

Medical deontology is the study of the duty and ethics of physicians and is an ideological and spiritual program that determines the behavior of physicians, students, and junior medical staff.

In this pamphlet, we talk about the “doctor-patient relationship,” a particular aspect of deontology.

Medical deontology requires a physician to possess human qualities first and foremost. These qualities are knowledge, humanity, courage, kindness, gentleness, honesty, purity, honesty, integrity, intelligence, quick-wittedness, meekness, humility, inquisitiveness, thoughtfulness.

The patient is away from his relatives and friends in the hospital, often feels lonely, it is difficult to adapt to new conditions, so the doctor carefully looks at the patients and takes care of them. 'must show. The patient is often confronted with shortcomings that occur in the department: untimely completion of treatment procedures, coldness of hospitals, delayed meals, etc., leading to a nervous state and confusing relationships. This negatively affects the outcome of treatment. The role of medicine in solving these problems is invaluable.

The solution to many of the problems that have arisen in the medical world depends on the doctor’s conscience, ethical culture, and spirituality.

"Spirituality" is an indispensable factor for a person, it is a mirror of his soul. It is the doctors who need to be spiritual, highly cultured, because they are always among the people. It is well known that the basis of human spirituality is knowledge. A well-educated doctor with a high level of knowledge and skills is highly disciplined and is suitable for others if they are exemplary in every job. Some put the problems in place and said, “Uncle, did you sleep well? Are you in a good mood? Did you take your morning medication? You are more alert than you were yesterday, and, God willing, you will soon be like a horse. ” From these warm words the beauty of the patient

is revealed. And some doctors are still in bed? Did you wash your hands and face? If you do that, the medicine will not work, ”he said. This is definitely a bad thing for the patient's psyche. makes a secret. Was that the way he treated his patient? Where is the simple spirituality? Where is the concept of simple manners, discipline? Sometimes when there are a number of nurses in an entire treatment facility, no doctor knows the skill of getting a needle into a vein. Sometimes he puts a needle in fourteen places and excuses himself by saying, "Your veins are running away." This is nerve-wracking.

Suppose the patient had to undergo an enema. Immediately "Do you have Vaseline?" He asks. If he says no, he can rinse the half-washed rubber container in water and get the job done. This is not true. The doctor should definitely prepare what you need in advance.

Some doctors have no idea about diagnosis. Often he uses the phrase, "The patient has become ill." He also doesn’t even know how to leech. Is it possible that the students of the college do not learn to read, to get into the veins during the study, to learn leeches. In our opinion, just as music is chosen from an early age, so it is necessary to recruit special kind, attentive, humane people through medicine and nursing, as well as through competitions. Selfish, self-absorbed people who say, "Let's go in here if we don't have math here" are unfit for medicine.

In our opinion, it is not right for students to just do what the doctor tells them to do calmly and carelessly. Students are not ordinary performers. He needs to become another doctor next to his doctor, even if he doesn’t order one. He is a person who raises the prestige and culture of our nation in the field of medicine and at the same time is very responsible.

Uzbekistan, one of the largest countries in the world, with more than half of its population of school-age children and young people, must have an "army" of excellent students. This “army” is a major force on the fronts that require patience and consistency for the health of the people. Let’s face it: a patient sees a doctor for only a few minutes a day, and students are always side by side day and night. students try to restore the patient’s health by following the doctor’s instructions. The only student is the one who accompanies and sympathizes with the patient, even when the work in the hospital is in full swing, when all the work is done, when the patients go home, when it is dark.

The word student itself has an extremely deep meaning. That means the student drank milk from a mother. So she is a born sister to each of us. The point is that the Student is also the official representative of medicine. He or she can connect the patient with the doctor and therefore correctly diagnose the pain and prescribe the necessary medication. But how these instructions are executed and, consequently, their effectiveness depends on the student. So, is it better for the student to talk to the patient: long or short? The timing of a conversation with a patient depends on many factors and requires a very subtle, specific norm from the student. The duration and content of the interview depends on the patient's condition, his level of culture, behavioral characteristics. Accordingly, when talking to a patient, the student should know the norm, how the patient should respond to the conversation. must be able to carefully observe the glazing. All explanations should be concise, clear, concise, and completely understandable to patients. When addressed with a kind and sweet word, a sincere smile expresses the nurse’s care and attention to her patients. However, the student’s attention and sincerity should not be kept secret, the nurse should not allow the patient to abuse the intimacy between them, and accordingly regulate his or her behavior and monitor the patient’s behavior. need Striving to alleviate his or her experiences in conversation with the patient will have a better healing effect than prescribed medications and will be greatly appreciated by the patient. Listening carefully to the patient helps to have the necessary information about the patient. It would be desirable for a student to be informed of all his patients as soon as he arrives at work, and to enter the rooms of all his patients at least at the end of the

working day, at least for a very short time. This has a very positive effect on the patient's psyche: patients feel under the constant supervision of the student for several hours, during which time the student is able to serve themselves, he is very alert, during the day from the sick make sure to receive a message several times.

Although early visits to patients 'bedrooms last 5-10 minutes, this is just as important for them.

There is a saying in medicine: "A well-groomed patient." Not only good physical and hygienic care of patients (good nutrition, accommodation, room ventilation, cleanliness of clothes and bedding, etc.), but also skillful "mental care": It is understood that he was informed, that he was in good spirits, that he was slowly recovering, and that he had a good relationship with the student. Short-term visits to the wards of students at the beginning and end of the working day are the basis for the creation of a "warm mental climate" in medical institutions.

As the student interacts with the patient, he or she should take into account the patient's personal characteristics, the neurological effects that the disease may cause, the level of culture, and of course not disclose the physician's secret. The doctor's secret is understood mainly as information about the patient (this information is obtained mainly from the patient himself), the unpleasant course of the disease, the diagnosis of psychological (damage to the human spirit). In the activities of a medical worker, there are often cases when the doctor's secret is related to "deception", which is called "sacred lie". For example, a patient whose illness is fatal should not be told that his or her illness is severe. Patients whose deaths are certain will be comforted by words spoken in the hope that they will recover.

The medical student should consider whether or not to inform the patient of his or her actual diagnosis. If a student decides to communicate a diagnosis to a patient, he or she should consider telling his or her stage, complications in a mild form, step by step, preparing the patient gradually. Of course, not everything can be told to the patient, but "keeping silent" or hesitating with an intelligent, understanding person does more harm than good.

In a number of diseases, including those with malignant tumors, the diagnosis is not known, the patient who comes to the oncology hospital suffers from the pain of determining whether the tumor is "bad" or "good" and, of course, ask a doctor or student. tries to know. The psyche of patients with oncological diseases is very delicate and sensitive, which is especially evident when they feel the impending consequences of the disease. In such a situation, the student's loud speech, laughter can throw the patient out of mental balance. Patients are provided with a wealth of information related to diagnosis, treatment, prevention of complications and recurrences of the disease, self-help routines, and special notes. For example, a simple example - a student should not only explain the essence of diabetes, but also - teach anti-diabetic diet, injection techniques, the properties of various insulins and oral medications, pre-coma symptoms and more. Thus explanations are necessary for patients with post-infarction cardiosclerosis, coronary heart disease, arrhythmias, gastrointestinal ulcers and other diseases.

Student behavior near the bed of a critically ill patient who is at risk of death remains an important and challenging issue in medical deontology. For example, the question of whether or not to inform the patient of the possibility of death is, under what circumstances and in what manner, if it should not be reported. At all times, this issue has inevitably had a negative solution. There are a number of drastic grounds and considerations for this. To inform the patient of the bitter truth of an absolutely unsaved end is, first and foremost, the most important thing in his life - to despair, to turn his last days and hours into a dark night, into a deep black abyss. In such cases, the nurse should give the patient hope for recovery and instill in him a sense of resistance to the disease.

Another important aspect of the relationship between the student and the patient is the explanation and proper organization of individual treatment regimens, diets, medications prescribed to the patient.

As Ali Ibn Abbas Ahwazi, a well-known scholar of the tenth century, wrote in his Instructions for Physicians, it is necessary to pay attention to the process of treating patients and try to use not only drugs but also proper nutrition for treatment. It is impossible to prescribe dangerous drugs to patients, as well as to promote them among patients when treating this or that disease. It is necessary to control not only the procedure and taking certain medications, but also the feedback on the diet in detail, firmly and convincingly.

In deontology, there is the concept of 'iatrogeny'. This is another disease that can be caused by the negligence, improper instructions, rude behavior, ignorance and indifference of the doctor or student, in a word, through the fault of the medical staff. This is the result of a violation of the great medical scholar Socrates' deontological saying, "Rgemum non nosege," meaning "Do no harm to the patient in the first place." This disease accounts for about 10 percent of all illnesses today. This indicates that there are still physicians and nurses who do not fully understand their deontological duty. There are also egrotogenesis, i.e., the negative impact of another patient's word on a sick person. In hospitals, some patients often visit a sick neighbor in their room. the effect is felt at the lum level, it causes mental tension, anxiety. Such a situation can be caused by "ancient" patients, who, in their opinion, have a deeper knowledge than the medical staff. They give advice and counseling to patients when they arrive at the hospital. They often share sad and ominous "predictive thoughts" that lead their listeners into a state of depression. In the prevention of such erotogenesis, it is important that the student provides complete and consistent information about the departmental order, specific responsibilities, disciplines and interactions of patients, regular conversations and messages. It is also useful to focus on a specific issue, such as the method of reprimanding the patient.

In such cases, the student should speak to the patient very clearly, understandably, clearly, convincingly. Only the outcome of this conversation is important: the patient must understand the reprimand correctly and the student must fully accept the lessons. However, such a conversation should not adversely affect the patient's condition. The patient should feel that he or she is still in a loving and close relationship with the student, that there is no lying down or conflict.

Thus, having a high deontological power, especially being able to communicate with patients, is a necessary skill in student activities.

Compliance - establishing a friendly relationship between doctor and patient. It is important to follow the doctor's advice to improve the patient's condition. A patient discharged from the hospital should continue at home for some time, especially with chronic diagnoses. If there is no "compliance" between the doctor and the patient, the patient will not follow the doctor's recommendations, which can aggravate the course of the disease. This in turn leads to economic and financial problems.

Evaluation criteria №1

The name of the topic	**Ball**	**Baho**	**The level of knowledge of the student**

The task of the science of propaedeutics of internal medicine is to treat patients. Verification procedure. The concept of medical deontology. Scheme of the medical report, methods of clinical examination of patients: interrogation, examination, palpation, percussion, auscultation. Patient complaints: primary, 2 - degree. Current medical history, life history	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Independent work. Medical deontology. Euthanasia problems iatrogenic
Homework. 2.

Practical training №2
General examination of patients: general condition, consciousness, condition, body composition. Examination of the patient on body parts: head, face, neck, skin, bones, muscles, joints.

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training
Practical training plan	1Separate interrogation of the patient. Individual work of students with patients, the sum of complaints and medical and life history. General examination of patients (general condition of the patient, state of consciousness, body composition). General examination rules, general examination of the patient. Examination of body parts: head, face, neck, arms and legs, skin. Fever. Temperature changes. Anthropometry. Anthropometric formula. The importance of anthropometry in the diagnosis of the disease.
The purpose of practical training:	To teach students to work with patients individually, to compile a collection of complaints and medical and life history, and to review patients in general.
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Verbal control: questions and answers, tests, problem solving.

1.2. . Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	4. Controls the cleanliness of the audience 5. Checks students' readiness for classes 6. Controls attendance	
1. Introductory phase of the training (10 minutes)	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
2 - the main stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment 5. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch They participate They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. The importance of questioning patients individually.
2. The concept of anamnesis morbidity
3. The concept of anamnesis vitae
4. What is inspection?
5. Basic and additional verification methods
6. General scanning technique.
7. Describe the types of consciousness
8. Evaluate the condition of the stupor
9. Evaluate the condition of the sopor
10. Assess the state of coma
11. What changes do you know about the patient’s condition?
12. What is the active state?
13. What is a passive state?
14. Give an idea of the mandatory cases
15. What do you mean by body structure?
16. Describe the asthenic type
17. Describe the hypertensive type
18. Describe the normosthenic type
19. Diagnostic significance of facial structure and appearance
20. Describe the Corvisor Method
21. Describe the Shocking Face.
22. Describe facies febrile
23. Facial structure and appearance changes in endocrine diseases
24. Describe the "Parkinson's mask" and "sardonic laughter."
25. What is Fasiyes Hippocrates?

26. what to look for when examining the oral cavity.
27. Diagnostic significance of eye, eyelid, pupillary changes
28. What to look for when examining your skin
29. On examination, you can see how the subcutaneous fat layer changes
30. What changes can be seen in the muscles and joints on examination
31. Lymph nodes are normal and in pathology
32. state the rules of thermometry
33. state the rules of thermometry
34. How do you set your body temperature on a "fever sheet"?
35. Types of fever
36. Fever Cycles Clinic
37. Draw the main types of fever
38. What is atropometric? Transfer rules.
39. Explain the types of atropometric indices

The "pen in the middle of the table" method

The whole group is asked questions (e.g., diabetes symptoms, beta-blocker medications, UIC propensity factors). Each student writes their answer on a piece of paper and sends it to a neighbor, placing the pen in the middle of the table.

The teacher checks the group work and writes the general option in the notebook.

General and local examination of patients.

A general examination of the patient is very important for the diagnosis of various diseases. You need to consider a number of changes while talking to the patient. Common observations include a conversation with the patient and a general examination of him. Objective data include a general examination of the patient, ie assessment of the condition of the skin, mucous membranes, subcutaneous fat cells, muscles, joints and bones. In addition to assessing the patient's condition, you will also need to consider the presence of pathological changes or depression.

Attention should also be paid to the patient's facial expressions and speech. Depending on the ethnicity, you should monitor the patient's facial color as well as body composition. This review will give you a lot of information. During the examination, the room temperature should be close to body temperature, and the medical staff and the patient should be in a comfortable position. Accordingly, the patient's examination is visually assessed.

You need to make sure that you examine the patient thoroughly so that no part of his body is out of sight during the general examination. The structure of the human body is examined across all systems.

No matter what inspection methods are used, you need to know: color indicators, odor perception, measurement, symmetry and movement (or its absence), and so on. When assessing a patient's condition, it is important to determine the extent of his or her condition, such as the condition of the eyes, chest, and body structure. In addition, it is necessary to pay attention to other signs that are important for a correct and accurate diagnosis of the patient. So we examine the patient according to the following plan:

Determining the patient's consciousness. The patient may be unconscious or dizzy.

1.Stupor (stupor). In this case, the patient is indifferent to those around him, answers questions vaguely, late and with difficulty.

2.Sopor condition(sopor). In this case, the patient is asleep. It is possible to wake him up and talk to him, then the patient will return to his position again.

3. Coma condition **(coma).**In this case, all the reflexes of the patient disappear. The situation is getting worse. Goes into a deep sleep state. Coma is associated with the following diseases (diabetes, kidney disease, cerebrovascular accident, acute infectious diseases, liver disease, cerebral hemorrhage, brain injury, drug exposure to alcoholism, morphine, veronal and other poisoning, malaria, meningitis, epilepsy, etc.). The comatose state can be seen as a consequence of a very serious illness.

In the above-mentioned diseases, there are cases of harm to others due to the patient's extreme aggression, uncertainty of consciousness.

The patient's condition. The following condition of the patient can be observed:

1. Active position - in this case the patient can change his position in bed and walk freely independently.

2. Passive state - when the patient lies motionless and inattentive to others and needs help.

3. Compulsive condition is a condition that alleviates the patient's condition. The binding situation may be different. For example, patients with cardiovascular disease prefer to lie on the right side and orthopnea (legs lowered while the patient is sitting).

An example of a mandatory condition - patients with other diseases (bronchial asthma, bronchiectasis, pleurisy, inflammation, peritonitis, appendicitis, etc.). Patients with bronchial asthma usually do not lie down in their seats, but instead sit in the morning with their hands on their knees in a chair. In this case, the respiratory support muscles are involved in the act of breathing and alleviate the patient’s condition, albeit slightly.

In some diseases (acute peritonitis, appendicitis), if there is severe pain in the abdomen, the leg is lying on its back in two layers.

In patients with pancreatic cancer, diaphragmatic pleurisy, tuberculosis, the patient often prefers to lie down. This condition slows down the feeling of pain in the abdomen.

In peptic ulcer disease, the abdomen should be pressed with the hands so that the pain gradually subsides.

In meningitis, the patient is forced to lie on his side, fold both legs and throw his head back. In many cases, such mandatory conditions help the doctor diagnose the disease.

Constitution-is a set of functional and morphological features and has a congenital or acquired nature. The classification proposed by MV Chernorutsky on the human constitution was adopted. According to him, three different types of constitution are distinguished: normosthenic, asthenic and hypertensive. Knowledge of the constitution helps in the diagnosis of internal diseases. For example, in hypertensives, the metabolism is reduced, and often they develop obesity, gallstones, kidney stones, hypertension, atherosclerosis. Asthenics, on the other hand, have increased metabolism, often with lung disease, splanchnoptosis.

Therefore, it is important to take preventive health measures (proper organization of work, rest, nutrition, physical education and sports, etc.). The patient’s obesity or thinness, the development of a subcutaneous fat layer, is determined by examination and palpation. The subcutaneous fat layer is approximately 2 cm in the abdominal area, below the ribs.

Measuring body weight.The weight of the patient is measured on a special medical scale. In the morning, it is advisable to measure body weight in plain clothes and without filling the bladder. Before measuring the patient's weight, check the balance of the scales and begin to measure the directional stones to the 0 position. Typically, such measurements are taken once or twice a week.

Assessing the condition of each patient is the primary responsibility of the students.

A lot is required of the student in relation to the patient: the patient's origin, medical history, general condition, medical and life history, other information, and so on. Based on this information, the patient's subsequent treatment process is carried out and monitored.

Identifying the patient's physical and psychosocial problems and collecting them is the most important direction. Assessment of the patient's condition largely depends on the student's practical skills. Interviews, examination of the patient's general condition, advice are included in the criteria for assessing the general condition of the patient.

Clinical findings are widely used during the general examination of the patient. These include palpation, percussion, and auscultation. All this is a database for the student. The data set then becomes the basis for clinical diagnosis and physician recommendations.

In the treatment of the patient, the student is required to have different areas of physical assessment. A structured approach helps to make a consistent and comprehensive assessment of the patient's condition. Based on her work experience and practical skills, the nurse can thoroughly master the basics of physical assessment in a more advanced way.

General data collection methods:interview, general examination, physical condition of the patient, recommendations of medical specialists, list of references, palpation, auscultation and percussion form the basis of physical assessment. Also, the source of information about the patient: medical history (history), - information about the patient's current and previous condition, written information - recommendations and diagnoses of medical professionals, problem solving, treatment methods and information about the patient to his friends and information provided to family members.

There is no clear way to collect patient information. Regardless of which method is used, the nurse should perform a complete physical examination.

The requirements for data collection are the same, but the methods of performing them may be different. The difference between the methods depends on the condition of the patient. If a student wants to develop a unique method, he must get acquainted with the available methods, compare them and learn to systematize the data obtained.

Interview (request) -conversation with the patient. At this time, the student gathers information about the patient's concerns, which will undoubtedly help the specialist on how to deal with the patient in the future. Mutual unity at the first meeting with the patient, the emergence of trust in the student, lays the foundation for strengthening the relationship between them. The student's etiquette, manners, attentiveness, sweet speech should convince the patient and subdue him. The information gathered about the patient himself is subjective information.

If the patient is unable to participate in the conversation due to physical or psychoemotional changes, then it is necessary to involve his family members or friends.

The student can determine the extent of the patient's condition through initial questions. This survey identifies allergic or chronic diseases (continuous or intermittent). There are a number of questions that, depending on the answer given to them, determine the patient's current condition and the type of disease. The student can ask the patient the following questions:

- In your own words, tell me what bothers you;
- Is that why you contacted us ?;
- Has this problem bothered you before?
- What can affect your condition?
- In what situation will your condition improve?
- How do your family members feel about it?
- Does your family care about your health?
- What do you think we, the medical staff, can help you with?

Collection of anamnesis in student work- to document the interaction with the patient. Regardless of which form of documentation is used, you should gather information about the patient's symptoms. The student can assess the patient's pain by asking the following questions:

- About pain: "Where does it hurt?"
- About the beginning and continuation of pain: "When did pain appear?" , "How long has it been going on?"
- Determining whether pain is increasing or decreasing: "If you rate it on a scale of 0 to 5, how intense do you think your pain is?"
- Influence of the external environment: "In what cases does the pain intensify? What helps to reduce the pain"?
- "How much does this pain affect you? Can you do this or that?"
- "How do you assess your pain? Is it dangerous for life?"

You don't have to ask all the questions to get the information you need. Sometimes it is possible to get more than one answer to a question. The process of conversation depends on the condition of the patient. If the patient is in a serious condition, one or two necessary (clear) questions will suffice. if the patient does not feel relieved during the conversation with the student, this dialogue will be ineffective. It is important to know that the 'student truth' must be of positive benefit to the health of this patient, otherwise this truth loses its significance. The conversation with the patient should be constructive and creative. In our opinion, this conversation is like a stage play that is inextricably linked. The first part is the subjective side in which the patient plays the lead role. But the student must be able to manage the performance of this role, otherwise the conversation may turn into a monologue and not give the expected result. The second part is the objective aspect, in which the student plays a key role. He should try to have comprehensive information during this process, making extensive use of physical examination methods.

Direct examination of the patient

Examination of the patient is performed in two ways. 1. Physical method. This is a verification method without the use of any tools. 2. Laboratory - a method of testing with instruments. This method has become very popular in the last decade, when science and technology developed. Although laboratory and instrumental testing has been successful, direct physical examination should remain the primary method in the study of disease. The method of verification with the laboratory and instruments should be of auxiliary value only. The first is that the screening method is usually done after the request. The review will also continue during the anamnesis collection period. It should be noted that sometimes a single visit to the patient alone allows the diagnosis to be made.

Although scanning is a very simple verification method, in order to get the right information during the scan, it is necessary to follow the information conditions:

1. Visualization should be carried out as much as possible during the day - in natural light, as artificial, including electric light, can make some characters squeak. Often it causes us to be unable to detect skin color, some rashes. In natural light, the shape of the body, the color of the skin, rashes, movement of the limbs, vibration are visible when illuminated from the side.
2. During the examination, the patient is first examined up to the waist, then his back, arms and legs, abdomen, etc. are examined.
3. The room temperature under examination should be moderate, as at low or high temperatures the patient's skin may show certain changes (whitening, bruising, marble discoloration or, conversely, redness, sweating, etc.) can be observed.
4. Visual inspection is performed by examining the patient from head to toe.

At first sight, attention is paid to the general condition of the benor, consciousness, condition, facial features, skin color, height, body structure. The general condition of the patient may be satisfactory, moderately severe, extremely severe, agonal (in a death frenzy).
The patient's condition can be active, passive, and reluctant. The condition of a healthy person becomes active, he can change his condition despite feeling pain and discomfort. The fact that the patient is active does not mean anything about his illness, but it does mean that he is conscious and able to control his muscles mentally. Sometimes a patient who has been bedridden for a long time remains unconscious for the rest of his life and is in an active state (e.g., in a malignant tumor or cancer) and vice versa, sometimes in less severe functional diseases (unconsciousness). cutting, hysteria) the patient's condition may be temporarily sluggish. A sluggish condition often causes discomfort to the patient: when the head is hung down or bent under the feet (this is often the case with general malaise, sudden sudden loss of blood or fainting) and it indicates the severity of the patient's condition, but even in short-term fainting a temporary lethargy is observed. Weak condition is observed in severe acute infectious diseases (rash, recurrence, diarrhea, billion pulmonary tuberculosis, malaria, etc.).
Failure -is a condition that the patient receives when forced by any feature of the disease. In this case, the patient can change his position at will, but the return to the original state as a result of increased pain improves his condition, the pain is reduced. There are many possible causes for this condition, but the first is pain and shortness of breath.
There are many types of depression, the most common of which is constipation. This condition is seen when the heart attacks. At the same time there is a sudden strong pain in the heart area, and in the panic of death they spend a period of seizures in the legs. Just as in the case of leg cramps, the patient walking in an alternating lameness stops abruptly and remains motionless until the cramps are over. Uncomfortable sitting (orthopnoea) condition occurs in patients with severe shortness of breath. The patient sits with his legs down and leans on the edge of the bed or chair (chair) with his hands, strengthening the shoulder girdle. At this time, the auxiliary breathing muscles are involved in breathing, resulting in reduced shortness of breath. Uncomfortable lying position when the respiratory organs are injured together with the pleura (zotiljam, pleurisy, rib fractures) are observed in patients with heart disease. Nailoj lying on his back is observed when there is severe pain in the ventricles (peritonitis, acute appendicitis, perforation of the stomach and duodenal ulcer). In this case, the patient's legs are often bent at the knees.
The position of lying almost motionless with the back is observed in the articulated active type of the body. Cerebrospinal meningitis is characterized by "question mark", "gunshot", "barking dog", lying on his stomach with his head back, legs bent at the knees.
The opisthotonus condition is caused by a prolonged tetanic contraction of the long muscles in the back, causing the patient’s body to bend like a bow, resulting in the patient lying on the bed with two or three points - neck and heel or neck, pelvis and heel. Lying in the abdomen is observed during intense pain caused by a tumor of the pancreas, when there is a wound in the back wall of the stomach and duodenum, and in some other cases (bed sores in the pancreas). Knee-elbow condition is observed in exudative pericarditis, sometimes with abdominal pain - "the state of the people of Muhammad while praying." Types of failure situations are demonstrated through movies, slides, and tables. The patient's neck may be straight or incorrect (curved) (spine, sternum,
The structure of the body (constitution) is a set of functional and morphological features, having an innate and acquired nature. Many classifications have been proposed to describe the human constitution. The most common and popular of them is the classification proposed by the well-

known scientist, prominent therapist MV Chernorutsky. According to this classification, normosthenic, asthenic, hypertensive constitutions are distinguished.

A person whose body structure is fully developed is included in the normosthenic constitution. The predominance of height, elegance, compactness, lightness, but the weakness of general development are inherent in the asthenic constitution. People with an asthenic constitution are often taller than average, their arms and legs are longer than their torso, and their chest is higher than their abdomen.

Morphological features of hypertensive constitution: wide, large, heavy, full and mature structure. Usually people with hypertensive constitution are of average or lower height, relatively tall, short limbs, abdomen above the chest, the width is higher than the neck. The external structure of the body corresponds to its internal structure in a certain sense, i.e. the size, location of the organs and so on. Hence, it is possible to predict the specificity of the internal structure of the body depending on its external structure. Within the internal organs, the lungs are relatively large in asthenics, all other organs - the heart, liver, intestines, pancreas, kidneys, are enlarged in black hypertensives. Knowing the constitutional structure of the internal medicine clinic will help in the correct diagnosis of diseases.

Under the same conditions, people of different structures, if they are sick, often get different diseases. For example, hypertensives often have a slower metabolic process than asthenics, who develop metabolic disorders. Including obesity, gallstones, kidney stones, atherosclerosis, hypertension.

In asthenics, the metabolic process is accelerated, and often there is a hanging of the internal organs (splanchnoptosis) as a result of lung disease, weakness of the longitudinal and peritoneum. However, it should be noted that the disease develops under certain unfavorable external conditions. Therefore, it is important to take preventive measures on a planned basis.

Here the subcutaneous fat layer is usually about 2 cm gat most. Depending on the thickness of the subcutaneous fat layer, we determine obesity, weight loss, excessive weight loss (cachexia).

Disorders can be temporary (strong emotion, fear, excitement, severe pain) and permanent (in anemia, kidney disease, aortic valve defect).

Redness either temporary or permanent, diffuse or limited. Transient redness is a physiological phenomenon that occurs as a result of nervous excitement, anger, embarrassment, warmth. Redness that occurs when the temperature rises is a pathological phenomenon. Sometimes the color may fade when the temperature rises (during bod, sepsis, purulent processes). In hypertension, redness is more on the neck than on the face.

Bruising is always a pathological condition, which occurs in the following cases: 1) in diseases of the respiratory organs accompanied by a violation of gas exchange; 2) in diseases of the cardiovascular system with impaired vascular flow; 3) in case of blood poisoning.

Bruising is most often observed in the groin areas, on the lips, inside the nose, in the ear supra, on the knees, sometimes far away from the heart - on the fingers, nails (acrocyanosis).

Yellowing (icterus) can be different: bilinear - it is possible to determine the nature of jaundice, which sometimes goes unnoticed, and when it appeared. Jaundice turns green after a long time, mechanical jaundice continues with itching, and nail marks remain on the skin. Yellowing is evident in the soft palate and white. The yellowing that occurs on the palms and soles of the feet when the carotene pigment in the blood is increased, and the yellowing that occurs when taking the drug, must be distinguished from true jaundice. At this time, the whites of the eyes do not turn yellow.

Wheat color is observed only in bronze or Addison's disease (when the function of the adrenal glands decreases, the face turns into a black spot, or on the mucous membrane of the cheeks, on

the gums appear dark spots). You may see more freckles and spots on the skin that are not diagnostic. Dark and brown spots (chloasma) on the face, forehead and cheeks are more common in pregnant women, which are also observed in chronic diseases of the liver and intestines. Darkening of the midline of the abdomen, around the nipple, is often observed in pregnancy.

Changes associated with pigment loss also occur. At this time, pigment-free areas appear on the skin, which vary in size and shape. The perimeter is bordered by a pigmented area. They are often symmetrical. These spots are stable, do not cause any subjective effects and functional impairment.

Physicians working in Central Asia need to raise awareness about the innocence of leprosy when they meet such patients and those around them, as some people replace the disease with severe, incurable leprosy, and they deal with such patients. they try not to communicate. Complete pigmentation of the skin (albinism) is very rare. Skin rashes, the nature of their location, time of onset, etc. are of great diagnostic importance. The main elements of the rash are a yellow spot (masula), nodule (papula), vesicle (vesicula), blister (urtica), erythema (erythema), hemorrhage (petechia) and so on. A number of infectious diseases are accompanied by rash: measles, rubella, scarlet fever, chickenpox, smallpox, diarrhea, rash sweating, paratyphoid. Sometimes rashes are also observed in diseases of the internal organs.

The elasticity of the skin is determined by sight and palpation. In pathological cases, the tension of the skin changes slightly. Lymph node enlargement is observed in lymphocytic leukemia, lymphogranulomatosis, lymphosarcoma, and secondary injury. We pay attention to the level, the presence of pain, shrinkage, fatigue.

Bone skeletons: Defects in the spine, thorax, skull, limbs are detected by vision. Such changes are often observed in patients with endocrine diseases, acromegaly, chondrodystrophy, infaltilism, lice, rickets, tuberculosis.

Our people say that the face is the mirror of the tongue. The appearance of the face reflects the inner experiences of the benor.

For example, the following changes are observed in internal diseases: fever, dry lips, redness of the skin, and so on. They can be colored. In croupous inflammation of the lungs, often one side of the face becomes red, there is a rash around the nose and lips, the nasal wings are involved in breathing, and the patient looks sad.

In kidney disease, the face of the benor changes inexplicably, it becomes ugly and the upper and lower lids become cold.

The face turns white when there is a defect in the aortic valves.

In mitochondrial insufficiency of the heart, which has lost the ability to recover, there is a "mitral" face, in which the tips of the ears and nose, lips are blue - purple, and in the cheeks are blue - spots appear.

The face of the corpse is characteristic of chronic heart failure, in which the patient opens his mouth halfway and acts as if holding air. His face is yellow, pale, bluish, and his teary eyes look dull.

In neurasthenics, a "tired" face is observed.

In Bazedov's disease, the face is rich in movements, the patient's eyes are twinkling and twinkling, in which an expression of anger or fear can be observed.

In myxedema, the face is as pale as in the lower extremities, the eyes are narrowed, and the eyes are often meaningless. The face is pale red as the cheeks are painted.

In acromegaly, the face, nose, lips, and eyebrows become excessively enlarged, and the tooth space expands and the lower jaw bulges forward. Issenko - Kushing's syndrome is facial, and in women often grows a beard.

The face of a white man has small freckles without a beard (reminiscent of a wrinkled apple).

The face of Hippocrates is sunken into the eyes, the nose is sharp, the skin is bluish, the forehead is covered with cold sweat. This condition is most often seen in a patient with acute diffuse inflammation of the peritoneum, a fatal convulsion.

In a patient suffering from parkinsonism, the face becomes immobile (without facial expressions).

The lion's face is found in leprosy. At the same time, the nasal cavities dilate, the skin above and under the eyebrows thickens like a knot, and the edges of the eyebrows fall out.

A symmetrical face is observed in stroke and peripheral nerve injury.

When we see a patient's face, we can detect several eye tests. For example, exophthalmus - a thyrotoxic bull's eye (enophthalmus) - in hypothyroidism, and in this disease we can see the Grefe, Shtelvag, Mebius, Gorner tests.

Problematic issues.

Issue 1. Anthropometry (anthropos - man, metron - measurement) is a method of determining a person's body structure, ie height, chest circumference and body weight. Important data for diagnosis can be obtained through anthropometric indicators.

The patient's height is measured with a special height gauge. It consists of a vertical board divided into centimeters and a small board mounted horizontally sliding attached to it. When measuring height, the person stands with his back to the board under the ruler. In this case, three parts of the body: the heel, buttocks and chest should touch the board, and the upper border of the external auditory canal should be in a horizontal line with the outer corner of the eye. The slider of the gauge is then lowered over the head and it is marked on which number it stands.

The circumference of the chest is measured when the arms are lowered, exhaled calmly with a centimeter tape. The measuring tape should pass over the corner of the chest from the back and over the VI rib from the front. In addition to the circumference of the breast, its anterior-posterior and transverse diameters are measured using a compass.

Their weight is measured when patients come to the hospital and leave for treatment there. The patient's weight is measured after emptying the patient's bladder, without having breakfast early in the morning. A simple load scale is used for the measurement. The result of weighing is recorded on a temperature sheet in the medical history.

To find out if Benor's weight is normal, subtract 100 from his height, expressed in centimeters. For example, height 180 cm - 100 = 80 kg. So the weight of a person who is 180 cm tall80 kgmust be. 2-3 kgmore or less does not matter. As a person gets older, his weight also goes backwards. For example, a 60-year-old man with a height of 180 cm weighs 9095 kgeven if it is the norm. The patient's weight is reduced due to malnutrition, infectious processes, intoxications, indigestion (diarrhea, vomiting), endocrine dysfunction (Bazedov's disease), malignant tumors, neurological diseases, etc. Weight gain is due to overeating, metabolic and endocrine disorders, edema, accumulation of water in the body cavities, and so on. Based on the identified anthropometric indicators, several indices of practical importance are calculated.

1. Height - the force of gravity - indicates the proportions of the body structure. To determine this, multiply the body weight in kilograms by 100 and divide by the height in centimeters.

M • 100

Its formula **P**

M is the body weight.

P is the height of the neck.

Normally this is a relative 37-40. If it increases, it indicates that the patient is overweight, and if it decreases, it indicates that he is underweight. But this indicator is always conditional, and in order to assess it, it is necessary to pay attention to other clinical signs.

2. The index of proportion of height and circumference of the chest is determined on the basis of the following formula: P • 100, where O is the circumference of the chest.

O

This figure is normally 50-55. An index of less than 50 indicates chest tightness, and an index of more than 55 indicates chest width.

3. Pine index - indicates the degree of correlation between all the above indicators: P - (O + M). Normally it will be around 20. an excess or deficiency of this indicator indicates a violation of the balance.

Issue 2: thermometry, ie the measurement of body temperature, has a special place among the methods of examination. Changes in body temperature are often one of the first signs of the disease. Healthy human temperature 36-36.80 Cwill be around. The temperature during the day varies very little, sometimes from 0.3 to 0.50C10Cbecause the rate of heat generation and release in the body is controlled. Normally, in a healthy person, after physical exertion, after a full meal, in a very hot room, when there is a strong excitement, the temperature rises slightly and relaxes a little after sleep. If the temperature is 37 -380Cif around, subfebrile fever, if 38-390, moderate fever, if above 390, high fever. When the patient is very weak, in chronic intoxication may be a decrease in temperature (hypothermia) (360C and kam).

The rise in temperature affects the patient's condition. The patient becomes loose, his mouth becomes dry, the amount of urine excreted is significantly reduced, he loses weight. Harora10Cpulse increases to about 8 -10, only in some diseases (meningitis, diarrhea) the pulse lags behind the temperature rise. Temperature10Crespiration also increases by 4-5 times per minute. If the temperature rises, shivering occurs. This sensation is caused by a sudden contraction of the skin vessels. When the patient trembles, the skin turns white, the nails turn blue, and the surface of the skin resembles duck skin.

Evaluation criteria №2

The name of the topic	**Ball**	**Baho**	**The level of knowledge of the student**
Separate interrogation of the patient. Individual work of students with patients, the sum of complaints and medical and life history. General examination of patients (general condition of the patient, state of consciousness, body composition). General examination rules, general examination of the patient	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Homework 3. Independent work.

Practical training №3

Anthropometry. Thermometry. A general understanding of laboratory and instrumental examinations. Importance of modern laboratory and instrumental examination methods.

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training
Practical training plan	Palpation and percussion as a method of examination. Palpation of the thyroid gland and lymph nodes. Use of palpation and percussion as a clinical examination. Palpation and percussion development history, techniques, methods, diagnostic value. Percussion sound characteristics.
The purpose of practical training:	Teaching students palpation and percussion techniques. Training in palpation of the thyroid gland and lymph nodes.
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	7. Controls the cleanliness of the audience 8. Checks students' readiness for classes 9. Controls attendance	
1. Introductory phase of the training (10 minutes)	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
2 - the main stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment 5. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate They listen and answer questions
1st final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. What is palpation?
2. Types of palpation.
3. What is percussion?
4. Types of percussion

5. Developmental history of palpation
6. Diagnostic significance of superficial palpation
7. The diagnostic value of deep palpation
8. History of the development of percussion
9. Percussion technique
10 Monomanual percussion methods
11. Bimanual percussion methods
12. Characteristics of percussion sound
13. Technique of palpation of the thyroid gland
14. Diagnostic significance of thyroid palpation
15. Technique of palpation of lymph nodes
16.Diagnostic value of lymph node palpation

The "three-step interview" method

Three students will be selected in each group, and the roles of "doctor", "patient" and "expert-UASh" will be divided between them. The student who chooses the patient role is told an anonymous diagnosis, and he or she makes complaints about that diagnosis, the doctor makes a diagnosis, and the expert checks the UASh complaints and the proportion of the diagnosis. Each group is consulted for 10-15 minutes, the expert examines the activity of the doctor on 3 points:

1. What was done right
2. What went wrong
3. How to do it

The conclusion of the group consultation is compared with the conclusion of the expert.

Another type: students are analyzed by the whole group, participating in the clinic in the role of an expert, in a real consultation.

Facial expression. Examination of the face helps to identify various diseases. Depending on the face, it is possible to determine the severity of the disease (sharpness). Examples are acute peritonitis, uremia and other acute diseases. If the patient has a severe cold, the eyes will sit up and swelling and sweat will appear on the face. This appearance of the face was first identified by the founder of medicine, Hippocrates, who called the bu- facies Hippokratica - swollen, pale.

In kidney disease (nephritis, nephrosis), the face and eyelids swell, and the facial features are called facies nefriticus. A heart attack can also cause a hundred different changes in congenital or acquired defects of the heart, i.e., bruising of the corners of the lips (acrocyanosis). Mitral valve insufficiency and stenosis are also associated with facial changes. This condition is called facies mitralis. In aortic valve insufficiency, the face turns slightly white. In the case of prolonged septic endocarditis, the face turns yellow - "cafe auiait" (milk and coffee).

Tuberculosis has a "habitus phtizicus" - a thin, colorless face and long eyelashes.

In endocrine diseases (Bazedov's disease, myxedema, acromegaly, etc.) there are several changes in the patient's facial appearance. Hyperthyroidism, in particular, is characterized by Bazedov's face (facies Basedovica), ie enlarged eyes, puffiness, fear and roughness of the eyelids. appears.

In eosinophilic adenoma of the anterior pituitary gland, redness and enlargement of the cheekbones, a sharp enlargement of the nose, jaw, eyelids, lips, tongue may be observed. Swelling of the edges of the nose, a sharp red face, rash (herpes) on the edges of the nose and lips, a sign of jaundice means inflammation of the lungs. Rash can also occur on the body and limbs, for example, in various infections: malaria, recurrent typhus, cerebrospinal meningitis. It occurs in the presence of the herpes virus and the nerve branches spread throughout the herpes zoster.

Nose. Acute enlargement of the nose, cheekbones, jaws is characteristic of acromegaly. Penetration of the anterior wall of the nasal bone (saddle nose) is observed in various injuries. It is also the result of congenital traumatic disease. In this disease, necrosis of the nasal bones develops. A constantly red nose is a sign of alcoholism. Bleeding from the nose is a sign of cardiovascular disease. It can also occur in Osler, hypertension, diseases of the cardiovascular system and blood diseases (leukemia, Werlhof's disease, thrombocytopathy), Singa, chronic hepatitis, septic diseases, uremia, and others. In cerebral hemorrhage and inflammation of the trigeminal nerve fibers, unilateral smoothing of the nasal septum is observed.

Oral. Through the oral cavity, it will be possible to study changes in the tongue, teeth, and gums. Occurs when swelling and bleeding of the gums, acute leukemia and mercury poisoning. In chronic lead poisoning, dark streaks can be observed mainly in the gums.

Various infections and foul odors in the oral cavity are indicative of stomatitis. A dark streak on the gums, coin spots in the mouth are a sign of Addison-Birmer disease. Dry tongue can occur in various infections, acute peritonitis and various diseases. It is possible to assess the general condition of the patient by examining the tongue. Too dry the tongue leads to the appearance of large - large slices (cracks). Bleeding and darkening of the tongue are also evident in severe forms of uremia. In some cases, the upper part of the tongue flattens and softens. This symptom is characteristic of Addison-Birmer disease. Pain and burning sensation at the tip of the tongue is a symptom of axillary disease.

Sometimes the tongue is reddish in color. This condition of the tongue is due to a lack of vitamin B12. In acute infectious diseases of children, the tongue is dark red in color. In typhoid fever, the upper surface of the tongue is dark and the tip is crimson. In acromegaly, the tongue enlarges relative to its size. In cirrhosis of the liver, the tongue turns crimson (raspberry tongue). In atrophic gastritis, the tongue slides are flattened.

Members of the senses. Man perceives different influences on the external environment through different sensory organs and adapts to the external environment using them.

That's why eye scans are so important. During the examination of the face should pay attention to the condition of the visual organs (eyeball, auxiliary products of the eye). One of the main symptoms of Bazedov's disease is swelling of the eye, blurred vision (bilateral exophthalmos). Unilateral exophthalmos is a blood flow to the eyeball, which can occur in various tumors, inflammatory processes and tumors.

Myxedema, peritonitis, and agony of the eyeball are observed. The yellow color of the cornea and retina indicates hepatitis, gallbladder and tract stone disease, cancer, as well as dangerous and safe tumors of the pancreas. When paying attention to the eyeball, it is necessary to take into account its size, condition, response to light. We can observe narrowing of the eyeball when intoxicated with morphine, opium, various drugs.

Shortening of the eyelids occurs in a state of developing paralysis, as well as contraction of the pupil muscles when pilocarpine, reserpine is instilled into the body.

The pupil dilates when there is blood flow to the brain, a comatose state, and intoxication with atropine drugs. The uniformity of the eyeballs is of great diagnostic importance. Differences in the size of the eyeballs indicate that the functioning of the central nervous system is impaired.

Teri. When examining the skin, first of all it is necessary to pay attention to the upper part of the skin and all the layers beneath it. chronic and severe infectious diseases, sepsis, malaria, endocarditis in various wound diseases, gynecological blood loss and fetal development), circulatory system disease (chlorosis, Addison-Birmer anemia, leukemia, hemolytic anemia, Werlhof's disease) , poisoning and other diseases. Skin discoloration is also caused by a decrease in hemoglobin from normal.

Color is sometimes observed in patients with kidney disease, in cases of fear, vomiting, hypertension, anesthesia, as well as in cases of circulatory failure (compression of the lower aorta, insufficiency of the aortic valves). Collapse is also observed in collapse and peritonitis. Sudden onset of paleness indicates that the patient has lost a lot of blood. Usually in these patients there are cases of paleness of the upper part of the skin, dizziness, anesthesia, rapid pulse, a decrease in blood pressure. In addition, discoloration is caused by the development of acute hepatitis in some patients.

If the heart does not move the arterial blood with the pressure of the heart due to the insufficiency of the cardiovascular system, without saturation with O2, the arterial capillaries go back to the heart without turning into pulmonary arteries. This process causes the restoration of hemoglobin in the venous blood and leads to cases of cyanosis in the corner of the lips. This condition is called peripheral cyanosis.

Respiratory diseases (emphysema, pneumosclerosis and other respiratory infections) can be caused by gaseous toxins. Acute cyanosis can occur in congenital heart disease, sclerosis of the pulmonary arteries, embolism, pulmonary emphysema. Occasionally, the skin in the area of the sternum becomes yellow, indicating an increase in bilirubin in the blood. This condition is called jaundice (icterus). Depending on the duration and development of the symptoms of hyperbilirubinemia, the color of the skin changes: it can range from light brown to orange.

The location of the pigmentations is not the same. First the oral cavity (soft palate, tongue, mucous layer) is painted, and then the facial folds, nose and facial area, palms, heels are painted. This color slowly spreads throughout the body (subicterus).

Darkening of the skin can occur due to long-term consumption (argirosis), arsenic (arsenic melanosis).

In women, a change in the color of the skin of the breast area, as well as the appearance of a white line on the abdomen is a sign of pregnancy. On examination, depigmentation appears in the form of white bodies (vitili-go), or small spots (Leucoderma).

Skin examination is of great diagnostic value. It focuses on the presence of colored rashes, bleeding, wounds, scars, disorders of the hair follicles and pathology of the nails. In addition, the level of dryness, moisture, elasticity of the skin is determined by palpation. Its color depends on the amount of pigment, its thickness, and its filling with blood. The following changes in skin color can be distinguished: whitening (paleness), redness, bruising, yellowing, earth color.

Skin whitening can be temporary functional (severe pain, excitement, fear, etc.) or permanent (anemia, kidney disease, aortic regurgitation, etc.).

Redness can occur in both physiological (embarrassment, anger, exposure to external temperature) and pathological (Vakez's disease, hypertension, with gas, atropine, amylnitrite, opium poisoning, etc.).

Bruising is always a pathological condition, it occurs in lung diseases, cardiovascular diseases (due to blood stasis), poisoning, accompanied by impaired gas exchange. Bruising is most often seen at the periphery (fingers, nails) (acrocyanosis) in the areas of the nostrils (nose tip, ear supra, lip). Yellowing can appear in different shades: from pale yellow (subicteric), to dark, yellow. Yellowing becomes greener when it lasts longer. Jaundice is more pronounced in the white of the eye and in the mucous membrane of the palate. When the carotene pigment in the blood increases (when tomatoes, carrots are consumed in large quantities) or when taking certain medications, the palms, soles of the feet, the skin becomes yellow. It differs from true jaundice in that the white layer of the eye and the mucous layer of the palate do not turn yellow, adrenal insufficiency occurs in the form of the appearance of bronze-like spots on the skin, the appearance of white spots on the skin as a result of a decrease or loss of pigment. They are of different sizes and are often symmetrical and do not cause any functional disorders in the body. Various spots (macula), nodules (papules), vesicles, urtica, erythema, erythema on the skin (petechiae) are the main forms of rash. A number of infectious diseases , including measles, rubella, chickenpox, accompanied by an overflow of rashes on the body in diarrhea. Tuberculosis in internal diseases (croupous pneumonia, influenza), allergies can be various rashes. Scarring of the skin (postpartum scar, scarring of the wound, Itsengo - scars in Cushing’s syndrome, postoperative scars, etc.) also have a certain diagnostic value. Attention is also paid to the dryness or moisture of the skin. Dry skin is observed in dehydration, diarrhea, vomiting, myxedema, diabetes mellitus, chronic nephritis. will be. When examining hair, we pay attention to its growth, nature, condition. It is one of the main signs in the diagnosis of diseases of the endocrine glands. Specific changes in the fingers and nails (drumstick finger, clockwise nail) are observed in long-lasting purulent diseases. Besides, emphasis is placed on tumors in the review. They can be localized or spread throughout the body (anasarca). When tumors

appear, the volumes of tissues and organs increase, and their appearance changes. Examination of the lymph nodes shows that they are enlarged.

Evaluation criteria №3

The name of the topic	Ball	Baho	The level of knowledge of the student
As a method of palpation and percussion examination. Palpation of the thyroid gland and lymph nodes. Use of palpation and percussion as a clinical examination. Palpation and percussion development history, techniques, methods, diagnostic value. Percussion sound characteristics.	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Homework 4, independent work

Practical training №4

Methods of clinical examination of organs of the respiratory system. interrogation, general examination, examination of the chest. Chest palpation, purpose and functions, performance, diagnostic value.

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training
Practical training plan	Methods of examination of patients with diseases of the respiratory organs: interrogation, examination of the chest, palpation. Lung percussion, comparative percussion.
The purpose of practical training:	Students nteaching methods of examining patients with diseases of the aphasic organs.
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	1. Controls the cleanliness of the audience 2. Checks students' readiness for classes 3. Controls attendance	
1. Introductory phase of the training (10 minutes)	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
2 - the main stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment 5. Summarizes and summarizes the information provided on the topics, encourages and actively evaluates the active participant students	They are divided into small groups They cheat participate They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. The main and additional complaints of patients with respiratory diseases
2. What is sighing, the mechanism
3. Cough, the mechanism of formation
4. Characteristics of cough in diseases of the respiratory system
5. What is spitting blood, characteristic
6. Differential diagnosis of chest pain
7.General review of respiratory diseases
8. The importance of a separate inquiry into respiratory diseases
9.What is a normal chest
10. What is emphysematous chest?
11.Describe the paralytic chest
12.What is a rickets chest
13. Describe the funnel-shaped chest
14.What is a boat chest
15. In what cases the percussion sound is blunt
16. In what cases the percussion sound is tympanic
17. In what cases is a percussion sound box?

"Academic controversy" method

The group is divided into two groups, each of which is assigned a situational issue, for example, “consultation doctor-patient”. In each group, 1-2 students write down the pros and cons of the consultation - "lawyers", the other 2 students write down the disadvantages of the consultation - "prosecutors".

The findings of lawyers and prosecutors are analyzed by the whole group.

Subject statement

Particular attention should be paid to its examination in the examination of patients with respiratory disease. On general examination, attention is paid to the patient's condition (in a semi-lying position), bruising, rash - no swelling, enlarged lymph nodes, the condition of the fingers. The shape of the chest and its activity in respiration are determined.

When the chest is normal, all its lines are hormonal and symmetrical, especially in this normosthenic constitution. Asthenic and hypercytic chest are characterized by contrasting properties.

In pathological conditions, a shortened, enlarged, barrel-like (emphysematous) chest is observed, with all sides of the chest bulging, similar to a hypercytenic, as in the case of maximal respiration. This condition is observed in bronchial asthma attacks, chronic emphysema, in which it is difficult to breathe, the elasticity of the lungs is reduced. The opposite form - paralyzed chest (elongated, flattened shape, as if breathing deeply) occurs in diseases of the asthenic constitution with excessive weight loss. Breathing becomes difficult, especially in pulmonary tuberculosis, where congenital or acquired changes in the skeleton can affect the shape of the chest.

Funnel-shaped chest (congenital anomaly) - is called ethical chest.

As a result of rickets in childhood, the shape of the chest changes and takes the form of "chicken chest". This is called the rickets form. Curvature of the spine (kyphosis, scoliosis, lordosis) also leads to a change in the shape of the chest.

We focus on the shape of the chest - the flatness, the asymmetrical changes that resemble the bulge. By observing the movement of the breath, it is possible to determine the type of breathing, its activity, speed, depth, deviation from the norm. Normally 16 to 18 breaths are taken in 1 minute, the exhalation is shorter than the exhalation. Breathing is mostly done through the chest or tubes in women and young people, and through the abdomen or diaphragm in older men. In pathological cases, breathing can be fast or slow (Cheney - Stokes, Biota, Kusmaulcha breathing).

Feeling

Examination of the chest focuses on external changes in it. The internal organs of the thorax, on the other hand, change relative to the projection of their outer surface. So of course we need to know the external clinical topography. Such a topography is created by a series of natural points and artificial lines.

Natural character points. Bone marks:

1. The clavicle.
2. Ribs (costae), especially I, II, III last chin ribs, XI free ribs and rib females.
3. The sternum (sternum), its handle (manubrium), body (corpus), and dagger-shaped growth (prosessus xiphoideus).
4. The handle - the place where the body joins - the Ludovic angle (angulus Ludowici) is the starting point in counting these ribs, which corresponds to the place where the II rib is attached to the sternum.
5. Bone tumors of the spine, especially cervical VII, are palpable.
6. The scapula, especially its edge (spina scapulae) and angle (angulus scapulae).

Pits and other marking areas

1. The supraclavicular fossa (fossae supraclavicularis).
2. The lower fossae (fossae intraclavicularis).
3. The fossae suljuguluris, the upper part of the sternum.
4. The axillary fossa (fassae axilaris).
5. The upper area of the shoulder (regio supraclavicularis).
6. The lower area of the shoulder (regio intraclavicularis).
7. Spatium intraclavicularis.

In addition to natural marking areas, dots, and lines, the body surface is divided by artificially vertical falling lines for better targeting.

The following vertical lines are distinguished:

1. The anterior midline passes through the middle of the sternum (linea sternalis media).
2. The sternal lines pass left and right - on both sides of the sternum (1. sternalis dextra et sinistra).
3. The line near the sternum - passes between the sternum and the midline of the sternum (1. parasternalis dextra et sinistra).
4. Middle midline - begins in the middle of the lumbar spine (1.medioclavicularis).
5. Anterior axillary line - passes through the anterior edge of the axillary groove (1.axillaris anterior).
6. Middle axillary line - passes through the middle of the axilla (1.axillaris media).
7. Posterior axillary line - passes through the posterior edge of the axillary groove (1.axillaris posterior).
8. The scapular lines - pass through the lower corner of the scapula (1. scapularis).
9. Anterior lines of the spine - located between the shoulder and posterior midline (1. paravertebralis).
10. The posterior midline or vertebral line - passes over the bony tumors of the spine (1. vertebralis).

Palpation to determine the following:

1. Confirmation of the data obtained from the review on the size, shape change of the chest.
2. Determine the tension and pain in some areas of the chest.
3. Allows you to detect sound vibration.

Tension can be detected in all areas by palpation. In fact, both halves of the chest are equally elongated, and it decreases as the age goes backwards.

In pathological cases, changes in elongation can be detected.

Palpation can distinguish between superficial and deep pain. Superficial pain occurs when the intercostal nerve is injured (in the axilla, at the exit of the nerve fibers of the sternum), when the intercostal muscle is injured (pain is felt throughout the muscle and is associated with breathing occurs when the tubes are broken and cracked. In neuralgia, the pain is exacerbated when burning on the affected side. In dry pleurisy, the pain is exacerbated when bending to the healthy side. Pleural pain disappears when the chest is squeezed laterally, when the pelvis is flattened.

Palpation is especially commonly used and important in detecting sound vibration. When this sensory physician places his hand on the patient's chest, the sound vibration is captured through the chest when the patient says the letter "r" aloud. Vibration of the vocal cords is transmitted by air to the bronchi, bronchioles, and chest. Normally, men are stronger than women. The thick voice is not noticeable at all in women and children.

Vibration is stronger in the upper part of the chest, especially on the right side, because the Bronx is short, which creates good conditions for the transmission of sound vibrations from the larynx. The sound vibration on the left and bottom is weaker. Such a situation should be taken into account in

the detection of sound vibration. Vibration increases as the density of lung tissue increases, as dense tissue conducts sound well (in croupous inflammation of the lungs, tuberculosis, exudative pleurisy). Decreased vocal vibrations are due to a decrease in sound in debilitated patients, damage to the vocal cords, accumulation of air or fluid in the pleural space, obstruction of the bronchi, thickening of the chest (swelling, increased subcutaneous fat) 'y gives. Palpation can sometimes detect a rough friction noise of the pleura and a low wheezing sound.

Knocking

At the heart of this method is sound, that is, a definite physical phenomenon. Sound is the oscillating motion of this being propagating in the wave state. The oscillating motion of different bodies is not the same, they depend on the elongation property of the body. The vibration of a body out of equilibrium has the width, speed, and duration of vibration.

Sound is generated at a certain speed. Our ears receive sounds with a vibration rate of 16 to 38,000 (gs) per minute. The faster the vibration, the louder the sound, the slower it is, the lower the sound is heard. The volume is determined by the width of the vibration. When struck with the same force, the wall is elongated, making a loud noise in the air organs, for example, in the lungs, stomach, and other organs. In dense organs, for example, the liver produces a small width of vibration or low sound when the heart is unbalanced by palpitations. The duration of the vibration will vary with the length of the vibrational motion.

Thus, the duration and slow extinction of sound is produced by the extinction of the lungs and the short extinction as well as its rapid extinction by the extinction of airless organs and tissues.

Because the human body is made up of members with different characteristics, the tumbling of different places produces different sounds that differ in width and speed. This is especially true of the chest, which has airy (lungs) and airless dense organs (liver, heart).

If the tapping is the same, the change in sound will depend on the body particles being tapped.

Thus, depending on the degree of density of air, we can determine the physical condition of body parts. The method of weaving has been used since the time of Hippocrates. By this method, the fluid (acid) accumulated in the abdomen was distinguished from its drip (flatulence).

Later, this method was completely forgotten and was not used for centuries. The method of fertilization was first used by the Viennese physician Auyenbugger (1761). This method is described in the treatise "A new discovery that allows the detection of latent breast diseases on the basis of chest augmentation." Auyenbugger used the tapping method, in which the fingers of the right hand were joined and half-bent, hitting the chest directly.

Corvizor, a French clinician, translated the treatise into French and supplemented it with personal examinations. This later became the daily work of doctors. This method was later used in various ways. For example, tapping a special metal plate by placing a plessmeter on the chest, tapping a hammer on a plessmeter, or tapping a finger on a finger. The last modified method (1935) was proposed by the Russian clinician GS Sokolsky, and it became widespread. Many well-known clinicians (SP Botkin, GA Zakharin, MG Kurlov, NP Obraztsov and others) participated in the development of the method of inoculation. The tapping method differs into direct and indirect methods. Direct tapping is performed by tapping one or more fingers on the patient's body, at present it is rarely used. Another type of direct tapping is the Obraztsov method, which is a click method. In this case, the soft tip of the index finger of the right hand is slid from the middle finger. Indirectly, when tapped, it hits a plexiglass that is firmly attached to the body, not the body. At this time the sound is loud and clear. The most commonly used and simple method at the moment is finger tapping. It has a number of advantages, in which the doctor does not depend on the device, the finger - plethysmometer can be placed comfortably on any surface of the body, while the acoustic information is accompanied by sensing. Indirectly, when tapped, it hits a plexiglass that is

firmly attached to the body, not the body. At this time the sound is loud and clear. The most commonly used and simple method at the moment is finger tapping. It has a number of advantages, in that the doctor does not depend on the device, the finger - plethysmometer can be placed comfortably on any surface of the body, while the acoustic information is accompanied by sensing. Indirectly, when tapped, it hits a plexiglass that is firmly attached to the body, not the body. At this time the sound is loud and clear. The most commonly used and simple method at the moment is finger tapping. It has a number of advantages, in that the doctor does not depend on the device, the finger - plethysmometer can be placed comfortably on any surface of the body, while the acoustic information is accompanied by sensing.

Plessimeter - the left hand is placed tightly without moving the index or middle finger. The index finger or middle finger of the right hand is bent between the first joints. The other fingers do not touch them. You need to tap your finger upright on the floor. This ensures that the impact is strong and spreads to a greater depth than the surface.

To evaluate the sound correctly, you need to enter not 1 but 2 - 3 times with the same power, in the same range. But the beating should not be more than 2 - 3 times, because the hearing becomes muffled.

Deep, strong, high, and superficially weak and low shocks are distinguished. In deep tapping, the tapping sound propagates to a depth of 7 cm, the superficial tapping to a depth of 4 to 6 cm, and the surface tapping to a depth of 3 to 4 cm. Depending on the size and depth of the injured part, deep and superficial cuts are applied one after another. If the limb is superficial and less injured, it may be helpful to apply a weak (superficial) tap to determine its boundary. Conversely, it is better to use a strong (deep) tapping in order to compare the sound in a large injury located deep. Slow tapping is considered to be very sluggish or Goldsheider's borderline or bounce tapping. In this case, the plessmeter - the finger is not fully inserted, but the tip of the bent joint touches the surface of the body, The stroke 1 - corresponds to the beginning of the interval, and this is called the position of the finger plessmeter on the Plesh. When tapping very slowly, the sound is reduced to the threshold of sensation, and when tapping parts of the body without air, there is absolutely no sound. When we pass the air to a member, a very low sound is heard.

Touching differs from comparative and topographic tapping.

In the comparative study, the symmetrical parts were compared under the same conditions. These are determined by hitting with the same force, pressing the finger plexiglass in the same position and with the same force, holding the breath in the same phase, and so on. In comparative tapping, a much stronger and higher tapping is used, which in understandable cases is tested by both strong, weak, moderate, and very weak tapping. In this case, accurate information about the change in the tapping sound is obtained.

Then the cases can be tapped first right, then left and vice versa. Then there is no room for doubt.

Evaluation criteria №4

The name of the topic	**Ball**	**Baho**	**The level of knowledge of the student**
Methods of examination with diseases of the respiratory organs: interrogation, examination of the chest,	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**

palpation. Lung percussion, comparative percussion.	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Homework 5, independent work

Practical training №5

Methods of physical examination of organs of the respiratory system: lung percussion, rules and execution. Comparative percussion. Features of topographic percussion, percussion sound and lung boundaries in norm and pathology.

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training
Practical training plan	Topographical percussion of patients with healthy and diseased respiratory organs. Auscultation - as a method of objective examination. Auscultation techniques and rules. Pulmonary auscultation: basic respiratory sounds (vesicular, bronchial).
The purpose of practical training:	Teaching students lung percussion and auscultation.
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	10. Controls the cleanliness of the audience 11. Checks students' readiness for classes 12. Controls attendance	
1. Introductory stage of training (10 minutes)	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
2 - the main stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment	They are divided into small groups They watch participate

	5. Summarizes and summarizes the information provided on the topics, encourages and actively evaluates the active participant students	They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. What is the purpose of topographic percussion?
2. Techniques for determining the upper limit of the lungs
3. What assesses the area of the creek
4. Methods for determining the lower limit of the lungs
5. Indicate methods for determining the lower limit of the lung
6. Method and technique of auscultation
7. List the normal breathing noises
8. The mechanism of formation of vesicular respiration
9. Physiological depletion of vesicular respiration
10. Pathological impairment of vesicular respiration
11. Physiological intensification of vesicular respiration
12. Pathological exacerbation of vesicular respiration
13. How bronchial breathing is formed
14. Bronchial breathing hearing technique
15. The concept of pathological bronchial breathing
16. What is amphoric breath
17. What is metallic and stenotic breathing
18. Give an idea about vesiculobronchial breathing?

The "three-step interview" method

Three students will be selected in each group, and the roles of "doctor", "patient" and "expert-UASh" will be divided between them. The student who chooses the patient role is told an anonymous diagnosis, and he or she makes complaints about that diagnosis, the doctor makes a diagnosis, and the expert checks the UASh complaints and the proportion of the diagnosis. Each group is consulted for 10-15 minutes, the expert examines the activity of the doctor on 3 points:

4. What was done right
5. What went wrong
6. How to do it

The conclusion of the group consultation is compared with the conclusion of the expert.

Another type: students are analyzed by the whole group, participating in the clinic in the role of an expert, in a real consultation.

Subject statement

All auscultatory information about the respiratory organs is divided into primary and secondary respiratory interactions. The main respiratory interactions include vesicular, bronchial breathing types. Additional breathing noises include wheezing, crepitation, and frictional noise of the pleura.

Lung hearing can be heard using a stethoscope, a phonendoscope (auscultation tool) or directly with the ear (direct auscultation). Information on the types of auscultation and the procedure is provided in the general part of the manual.

During the hearing, the patient's condition is the same as in the case of the percussion examination method. To hear from the back, the patient's hands should be placed on the chest with the front folded. Then the space between the shovels opens and the field of hearing expands. If the condition of critically ill patients does not change, they can be heard by turning them to the side, and if this is not possible, the phonendoscope can be heard by pouring it under the patient. Dizziness is observed when hearing weak patients in an upright or sitting position. The student's condition should be comfortable to hear (depending on the patient's condition). To determine the pathological processes in the lungs, it is necessary to carry out an effective method of comparative percussion, that is, the symmetrical areas of the chest are audible and the hearing areas are followed in a clear order.

Hearing mode. From the front of the lung hearing, from the apex of the lung, the sounds are compared on both sides, then the phonendoscope is placed on the lower part.

The axillary and scapular areas are then auscultated comparatively.

When hearing the sounds produced during respiration, attention is paid to their character, strength, position, and attitude to the respiratory phase, i.e., whether the sounds are heard during inhalation or exhalation. The data obtained are of great practical importance.

Topographic examination of the lungs. Topographic imaging reveals the upper and lower boundaries of the lung, the area of the crease, and the movement of the lower edges of the lung.

Determining the upper limit of the lung. In topographic tapping, the plexiglass finger is placed parallel to the boundary being searched and determined from the outer edge of the finger.

To detect the upper border of the lungs, a plethysmometer finger is placed close to the sternum and tapped from the middle upwards and slightly inward until a hoarse sound is heard. In healthy people, the tip of the lung is 3 to 4 cm above the sternum. The upper border of the lung is determined from the back, as well as from the bottom up and inward, the plexiglass - the finger is placed adjacent to the middle of the upper edge of the shoulder blade and tapped until a muffled sound is produced. The upper limit of the normal lung corresponds to the posterior end of the VII cervical spine.

The right end of the lung is lower than the left. The width of the lung or the area of the crease is determined. To do this, the plethysmometer finger is placed perpendicular to the anterior edge of the trapezius muscle, in the middle of the lung tip, and from there to the inward and upper hoarseness. This creates a clear lung sound pathway 5 to 6 cm wide (3 to 8 cm). It is recommended to use a slow or very slow tapping when the tip of the lung is tapped, and the tapping should be sagittal.

Changes in the upper border can be detected in the esophagus, dilatation and ascension, and in pulmonary emphysema, low posture in the bending processes, adhesions.

Determining the lower limit of the lung. Determining the upper limit of the lung is less difficult, it is easier to start by defining the upper limit of the right lung. To do this, the tapping is carried out on all conditional lines from top to bottom. The location of the heart is taken into account when determining the lower border of the left lung, where the lungs form a groove and move to the left, forming a horizontal line from the sternum above the IV rib, and the IV rib in a line close to the sternum. crosses and descends vertically down to the VI rib along the midline.

Normal lower limit of the lungs:

Right Left

The anterior line of the sternum is the V intercostal space

Middle lumbar spine line I - VI rib

Anterior axillary lineI - VII rib VII rib

Middle axillary lineI - VIII rib VIII rib

Back axillary line - IX rib IX rib
Shovel lineI - X rib X rib
Anterior line I - XI thoracic spine XI thoracic spine
about the tumor about the tumor

Because the heart is close to the anterior line of the sternum and the stomach is close to the anterior line of the axilla, some authors (V. Vasilenko) do not define the lower border of the left lung along these lines. The location of the lower border of the lungs can vary depending on a person's body structure as well as other causes.

In asthenics, the lower limit of the lung is one rib lower than in normostenics, while in hypertensives, one rib is higher. In pregnant women, the lung border shifts upward. In pathological cases, the lower border of the lung shifts up or down, it can be bilateral or unilateral.

Lowering of the lower border of the lungs is observed in the following cases:

1. When the volume of the lungs increases (pulmonary emphysema, bronchial asthma attack).
2. When the abdominal devoir is relaxed, the internal organs slide down (viceroptosis) and the chest - the abdominal muscle barrier slides down.

Unilateral displacement of the lower border is observed when vicar emphysema of the lungs develops, when the lungs lag behind in participation in respiration (exudative pleurisy, pneumothorax, hydrotax, etc.).

Bilateral upward movement of the lower border of the lungs is observed when the pressure in the abdomen increases and the chest-abdominal muscular barrier is high (sudden obesity, abdominal rest, ascites, large edema, etc.).). Unilateral upper position of the lower border of the lungs is observed during the process of curvature (fibrosis) of the lungs or when fluid accumulates in the pleura (sticky pleurisy) and pleural cavity (on the patient's side).

Determination of lung edge movement. Detection of lung edge movement allows accurate determination of the lower limit of the lung. To do this, once the lower limit of the lung is determined, the patient is asked to take a deep breath and hold it, and again the limit is determined, and this is done by exhaling deeply. The movement of the lower edge of the lungs is the norm if it is 3-4 cm down and up.

Most movement is detected in the shoulder and axillary lines because this is where the pleural sinus becomes larger. In addition to the active movement of the edge of the lung, again, its movement depends on the situation. When moving from the upright position to the horizontal position, the lower border of the lung moves about 2 cm down, and in the horizontal position, the lower edge of the lung moves 3 - 4 cm to the free side (passage).

This slow movement of the lung edge should be kept in mind when examining critically bedridden patients.

In pathology, the movement of the lower edge of the lung, the elasticity of the lung tissue decreases. It is mainly observed in pulmonary emphysema, pulmonary embolism, its infiltrative inflammation. Decreased pulmonary motility is also observed in pleurisy when the size of the pleural cavity is reduced (sinuses) or when the pleural membranes become attached.

The boundary of the lung segment cannot be determined under moderate conditions. In pathological cases, some parts of the lungs may make different sounds (croupous inflammation, abscess). In this way we distinguish the disease from each other.

Specific resection of the lungs. Comparative resection of the lungs allows to determine the physical, ie anatomical position. In this case, the ejaculation should be carried out under exactly the same conditions, strictly within certain limits. In this case, it is advisable to use sometimes weak

(superficial), sometimes strong (deep) touching. In weak tachycardia, deep-seated changes in the lungs and, conversely, in strong tachycardia - superficial foci may not be found.

Specific tapping is performed in the following order: the tip of the lung, the anterior surface - the space between the ribs, the lateral surface (the patient should raise his hand and place it on the neck of the head) and the posterior surface. Rearing from the back starts from the top of the shovel, plexiglass - the finger is placed horizontally, and when tapping the middle of the shovels, the finger is placed vertically. Touching the lower side of the shoulder blade is done adjacent to the ribs, with the finger placed in a horizontal position.

The following special cases should be taken into account when comparing:

1. The sound coming from the right end of the lungs is a little muffled compared to the left. This is because the shoulder muscle is well developed and the right lung tip is located deeper.
2. Due to the proximity of the heart, the sound between the left and right ribs II - III is slightly shorter.
3. There is also a difference between the left and right axilla: the sound on the right is more muffled because the liver is closer, and the sound on the left is closer to the tympanic type because it is closer to the stomach.
4. Depending on the thickness of the airway lung tissue, the sound in the upper part of the lung is shorter and lower than in the lower part.

Changes in lung tone depending on pathological conditions. In pathological cases, lung tone may vary. A clear lung sound is often muffled when you sneeze:

1. When the density of air in the lung tissue decreases and increases.
2. When an airless tissue is formed in the lungs.
3. The space between the lungs and the chest - when the pleural space is filled with fluid or there is a dense cruciate ligament.

In inflammatory processes, a decrease in air in the lung tissue is observed.

In croupous, focal inflammation of the lungs, tuberculosis infiltrate as a result of tumor obstruction of the Bronx (in which the air is absorbed and the lung tissue becomes airless), in pulmonary infarction, in the lungs when there are scars (pneumosclerosis, tuberculosis), etc.

The presence of fluid in the lungs at infusion is determined by the filling of the Traube cavityI, when the amount of fluid in the lungs reaches 400 - 500 ml, and earlier on the left. The nature of the injury is also determined by the tapping. For example, in inflammatory processes (exudative pleurisy), the upper limit of the muffled sound forms the Damuazo curve, and it does not change when the patient's condition changes. zgaradi. As a result of pleurisy, when the pleural membrane thickens, as well as in the tumor formed by the pleura, a muffled or muffled sound can be detected.

The formation of a hoarse sound may be due to changes in the chest wall: when obese, when the breast is overdeveloped, when there is swelling.

The prevalence, shape, and magnitude of hoarseness depend on the nature of the disease. When the furnace of injury is large and deep, the muffled sound occupies a small area, while in a small furnace the muffled sound is less intense and occupies a smaller area. The smallest size of the inflammatory lesion is 3 - 4 cm. If it is superficial and the thickness of the thorax is within the norm, it is considered that the disease can be detected by palpation.

Tympanic sound is detected in the lungs in the following cases:

1). When abnormal air space is formed in the lungs.
2). When air or gas accumulates in the pleural cavity.

If the cavity formed in the lungs is the result of disruption or disintegration of lung tissue (accumulation of pus, blood, etc.), a hoarse sound is detected, if with empty air to If so, then a tympanic sound is detected, which is observed in abscesses, gangrene, large bronchiectasis, hollow

tuberculosis, and others. If the cavity is partly filled with air, partly with other things, then it will be possible to determine the horizontal pasat-pitch of the muffled sound, which will change as the patient's condition changes. This is called the Gergard phenomenon.

Choked tympanic sound can be detected in the early stages of pneumonia, that is, when the amount of air in the lung cells begins to accumulate exudate and decreases. This sound is also heard when the exudate begins to be absorbed.

Also in exudative pleurisy, a hoarse sound is detected when the part of the lung above the fluid is emptied. Because fluid accumulated in the pleural cavity compresses that part of the lung, its airflow and elongation are reduced. A similar phenomenon is observed in compressor atelectasis, in which the bronchi are open and the lung tissue is compressed (e.g., in tumors).

Auscultation of the lungs

Using the auscultation method, natural sounds are produced in the body. This method has been used since ancient times. Bukrot was the first in Greece to use auscultation. He identified a number of wheezes in the respiratory system. Buqrot made the hissing sound like the sound of boiling vinegar. He wrote a peculiar "Hippocratic whistling noise" observed in hydropneumothorax. However, the method of hearing was introduced in applied medicine after the discovery of the famous French clinician Rene Laenek.

In 1819, R. Laenek's book, A Guide to Hearing by Lung and Heart Disease, was published. Initially he used a notebook wrapped like a speaker, then he used a cylindrical tube, and later the examination instruments were improved and the present stethoscope was created.

In Russia, the auscultation method spread very quickly. From it (S. Botkin, G. Zakharin, Obrazssov were among the first to use it).

Both rigid and flexible stethoscopes have a number of unique advantages and disadvantages. In particular, in a rigid stethoscope, the nature of the sound changes little, additional noises are heard less, but it is a little uncomfortable for the doctor and the patient.

The flexible stethoscope is convenient for both the doctor and the patient, it amplifies the sound a bit, but at the same time allows additional noises to be heard, it transmits the low sound better than the high sound.

The key to auscultation is to know hearing and evaluate it correctly.

Although the auscultation method is very simple, it requires adherence to certain conditions.

1. There should be peace and quiet in the room.
2. The patient should be half-naked, as additional noises may be heard.
3. The room temperature should be moderate.
4. The hairs on the breast can make a haemorrhagic change, if they have grown, they should be wetted or scraped.
5. The patient and the doctor should be in a comfortable position with each other.
6. It is necessary to use the same stethoscope as much as possible.
7. Attention - attention should be focused only on hearing the patient.
8. It is necessary to listen to the patient's breathing and exhalation to the end.

When listening to the lungs, it is necessary to pay attention to the nature, strength, location, distribution of the noise, respiratory cycles. The order of hearing is approximately similar to tapping, with the front of the lung from the tip of the lung to the armpit (the patient's hand should be at the head), and the top, middle, and bottom surfaces of the shoulder blade at the back.

Hearing is done in symmetrical parts and compared with each other. In severely bedridden patients, a rapid-target hearing method is used to keep them from getting tired;

The main spontaneous respiratory interactions in respiration can be of 2 types depending on their nature: vesicular and bronchial respiration.

Bronchial breathing. In front of the hearing - in the upper part of the sternum, in the lower part of the neck, on the larynx and larynx, and in the back - from the VII cervical spine to the III - IV thoracic spine, according to its characteristics, the letter "X" the sound of breathing is heard as it is pronounced, while the exhalation becomes louder, longer, and rougher.

Mechanism of respiration: As air passes through the vocal cords - the larynx and larynx - its circular motion occurs, which is formed above the vocal cords during respiration and below it during exhalation. The sound is much longer, rougher, and louder because the sound of the exhaled sound is much smaller.

Because breathing is an active process, it is faster than exhaling. Such breathing is called laryngotracheal (depending on the mechanism of formation) or bronchial breathing.

Vesicular breathing. Another characteristic noise is heard in the rest of the chest. It sounds soft, puffy, like the pronunciation of the letter "F" (the sound of cooling tea on a tray).

This sound is the opposite of bronchial noise - it is heard longer and louder when breathing in contrast.

Mechanism of formation of vesicular respiration: it is formed in the alveoli of the lung parenchyma. During respiration, the alveoli are filled with air and its wall is straightened, resulting in the formation of alveolar due to the vibration of the elastic elements in it. As the alveoli fill regularly, a certain amount of a large amount of sound is produced, and as a result a sound is heard. Vibration of the alveolar walls quickly subsides during exhalation. The strength of vesicular respiration may not be the same in healthy people. It depends on the thickness of the breast devoir tissue, the strength of the breathing movement, and a number of other factors. It also depends on age, gender and a person’s body. In children aged 12 to 14 years, vesicular breathing is slightly louder and clearer. This is a result of the thinness of the chest wall and the relative narrowing of the bronchi. In adolescents, vesicular breathing is heard a little louder than in adults.

Vesicular breathing in women is much stronger than in men. In asthenics, vesicular breathing is heard louder than in hypertensives. In one person, vesicular breathing is heard differently in different parts of the lungs. Occasionally, bronchovesicular or mixed breathing is heard between vesicular and bronchial breathing at the right end of the lung. This difference should be kept in mind when hearing, tapping, and feeling. If the left side of the ear is stronger when you hear it, more hoarse when you squeak, and the sound vibration is stronger when you feel it, it is a sign of pathology.

Vesicular breathing may be increased and decreased. Increased vesicular respiration is observed in the following cases: increased pulmonary ventilation during deep breathing, after exercise, fever, narrowing of the small bronchi due to inflammation (bronchitis) or constriction (bronchial asthma), etc.

Increased vesicular respiration may be bilateral or unilateral. For example, a compensatory increase in respiration on the healthy side is a sign that the lungs on the opposite side are not fully or partially involved in respiration.

The increase may be related to both periods of respiration, i.e., inhalation and exhalation, or to a single period of it, often exhalation. Increased exhalation is often also characterized by its prolongation. Prolongation of vesicular respiration is observed when the elongation of the lung tissue decreases or the small bronchi become constricted and it is difficult to breathe (bronchitis, bronchial asthma). At this time, prolonged exhalation is heard over the entire surface of the lungs. If this altered breathing is heard in a limited area, it indicates that the inflammatory process is in a small area. For example, in tuberculosis, the left apex of the lung is injured. If breathing and exhalation are intensified during both periods of breathing, such breathing is called rough breathing, it is more rough in nature, it is not flat.

Bronchial breathing. Under physiological conditions, bronchial breathing is heard in the upper part of the larynx and over the throat. The intensity of the auditory field ba is higher in asthenics than in hypertensives, which is related to their anatomical features. If bronchial breathing is heard elsewhere than these parts, it is a pathological condition, indicating that the lung tissue is dense. The causes of thickening of the lung tissue are the formation of infiltration, filling of the lungs with blood (infarction), compression of the lungs, exudative pleurisy and tumors.

Breathing also changes depending on the size of the injured area. If the diameter of the damaged area is 2 - 3 cm, it can be identified if it is located superficially.

Bronchial breathing is also heard over pathological cavities. For example, when the lung tissue rots (tuberculosis cavernous, abscess, esophagus) or when the bronchial cavities dilate (bronchiectasis). Bronchial breathing is also heard when the hearth is joined to each other.

If bronchial breathing is caused by the crushing of the lung tissue, it is as if it is weak, audible from a distance. Such breathing can be observed in exudative pleurisy. In exudative pleurisy, bronchial breathing is often heard in a choked, proximal part of the lung tissue, near the spine.

Amphoric breathing is heard over large caverns - bronchiectasis. This sound can be compared to the sound created by blowing on an empty graphite or glass. Again the sound is different as it hits the metal. It differs from amphoric breathing in height and resonance. Such a breath is heard over large caverns filled with air, which are smooth and tight-walled, connected to the Bronx. In open pneumothorax, such a sound is heard if the pleural cavity is connected to the surrounding air and the air is not under great pressure.

If the breath is abruptly shortened and it is not possible to determine the nature of the breathing noises, then it is called indistinct breathing. It is observed in patients with extreme fatigue, in dry pleurisy limited respiratory movement, pain is most often heard.

Evaluation criteria №5

The name of the topic	**Ball**	**Baho**	**The level of knowledge of the student**
Topographic percussion of patients with healthy and diseased respiratory organs. Auscultation - as a method of objective examination. Auscultation techniques and rules. Pulmonary auscultation: basic respiratory sounds (vesicular, bronchial).	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Homework 6, independent work

Practical training №6

Pulmonary auscultation. Techniques and rules. Primary (bronchial and vesicular) and additional (wheezing, crepitation, pleural friction noise) breathing noises. Modern

inspection methods. Methods of radiological examination: bronchoscopy, bronchography, tomography. Methods of functional examination of the lungs: spirometry, spirography, pneumotoxometry. Examination of sputum.

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training
Practical training plan	Pulmonary auscultation: additional respiratory noises (dry and wet wheezing, crepitation and pleural friction noises). Diagnostic value. Bronchophonia. Methods of functional-instrumental examination of patients with respiratory diseases: spirometry, pneumotachometry, oxyhemotherapy. Methods of X-ray examination of the lungs, bronchoscopy, bronchography, tomography. Diagnostic value.
The purpose of practical training:	To students to form an understanding of additional respiratory noises (dry and wet wheezing, crepitation, and pleural friction noises). To acquaint patients with respiratory diseases with functional-instrumental methods of examination.
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	13. Controls the cleanliness of the audience 14. Checks students' readiness for classes 15. Controls attendance	
1. Introductory phase of the training (10 minutes)	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
2 - the main stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment 5. Summarizes and summarizes the information provided on the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. You know what pathological breathing noises are
2. Formation and nature of dry itching
3. Formation and nature of Na m grunting
4. The mechanism of formation of crepitation
5. The difference between crepitation with small bubbly wet wheezing
6. In what pathological cases occurs the friction noise of the pleura
7. What is pleuropericardial noise
8. Diagnostic significance of dry and wet wheezing
9. Diagnostic significance of crepitation and pleural friction noise
10. What is bronchophonia
11. In what cases bronchophonia increases, diagnostic value
12. In what cases bronchophonia subsides, diagnostic value
13. What is spirometry
14. Give an idea of pneumotachometry
15. Give an idea about oxygen therapy
16. X-ray and rengenoscopy of the lungs
17. Diagnostic significance of bronchoscopy and bronchography
18. Diagnostic significance of lung tomography

The “beehive” method

In this method, the problem is analyzed with the whole group or with two small groups. The assigned task can be assigned to one or two different groups for the whole group. Within 10-15 minutes, group participants analyze the task solution and report to each other. The best option will be selected from them.

Subject statement

All auscultatory information about the respiratory organs is divided into primary and secondary respiratory interactions. The main respiratory interactions include vesicular, bronchial, and other types of breathing. Additional breathing noises include wheezing, crepitation, and frictional noise of the pleura.

Lung hearing can be heard using a stethoscope, a phonendoscope (auscultation device) or directly with the ear (direct auscultation). Information on the types of auscultation and the procedure is provided in the general part of the manual.

During the hearing, the patient's condition is the same as in the case of the percussion examination method. To hear from the back, the patient's hands should be placed on the chest with the front folded. Then the space between the shovels opens and the field of hearing expands. If the condition of critically ill patients does not change, they can be heard by turning them to the side, and if this is not possible, the phonendoscope can be heard by pouring it under the patient. Dizziness is observed when hearing weak patients in an upright or sitting position. The student's condition should be comfortable to hear (depending on the patient's condition). To determine the pathological processes in the lungs, it is necessary to carry out an effective method of comparative percussion, that is, the symmetrical areas of the chest are audible and the hearing areas are followed in a clear order.

Hearing mode. From the front of the lung hearing, from the apex of the lung, the sounds are compared on both sides, then the phonendoscope is placed on the lower part.

The axillary and scapular areas are then auscultated comparatively.

When hearing the sounds produced during respiration, attention is paid to their character, strength, position, and attitude to the respiratory phase, i.e., whether the sounds are heard during inhalation or exhalation. The data obtained are of great practical importance.

Consult with other medical professionals.

Duty is a method of obtaining information about the patient from other medical personnel on duty during the work, reviewing records and cards or studying the history of the disease, as well as obtaining oral information. The patient should be diagnosed with a card or medical history, in which it is important to review examination information, laboratory and diagnostic test results, various student records, and previous treatment information from the counselor's record. It is always difficult to assess a patient's condition by communicating once, the student evaluates the patient's condition based on previously obtained information as well as other available medical information.

In collecting information about a patient, in addition to reviewing his or her medical records, the medical staff involved in the care process will need to consult with other medical staff. Depending on the situation, the student, together with a dietitian, physiotherapist or other specialist, learns about the patient.

Instrumental in patients with diseases of the respiratory system verification methods.

X-ray examination. X-ray examination includes radioscopy (creating an image of the object on the screen) and radiography (taking an image of the object being examined by capturing an image on light-sensitive material). The X-ray machine consists of an X-ray tube, a tripod, a voltage transformer, and a high-voltage transformer. Two electrodes: a cathode and an anode are welded to an X-ray tube made of glass and in the form of a balloon. The tungsten at the cathode consists of a coil using a transformer2500 ° Cheated to. As a result of heating, electrons fly out of the cathode, which, as the voltage between the cathode and the anode is large, their motion increases and they acquire a very high velocity. The electrons hit the anode material and brake sharply, resulting in short-wave electromagnetic radiation - X-rays. The X-ray machine is equipped with a protective system to protect the doctor from the effects of these rays.

These rays, discovered in 1896 by the German scientist Konrad Roentgen, have three properties: they allow visible rays to pass through objects that are absolutely impenetrable and are partially absorbed by them; causes the glow of some substances (radiation, fluorescence); decomposes the silver bromide in the photographic film and plates. These properties of these rays form the basis of radiography with radioscopy. The parts of the body that need to be exposed to light should be between the light source and the screen. The screen is a cardboard coated with a fluorescent substance.

X-ray examination of various organs and systems in the human body is based on the property of X-rays passing through media of different densities at different levels. In any case, the higher the density of an organ, the darker the shadow that will appear on the screen during X-rays or on the radiograph during X-rays.

Human tissues and organs have different densities and absorb X-rays at different levels. Dense bodies, bodies are larger than all, soft tissue, and air has the lowest density of all. In this regard, when the bones are much darker on the screen when exposed to light, the vascular bundle, the liver, gives a darker shade.

The air absorbs very little X-rays. Therefore, when the organs containing air are exposed to light, bright spots are formed. How bright they are depends on the amount of air. The liquid also absorbs a lot of X-rays: the thickness of the shadow falling from the liquid is directly proportional to its amount.

When organs in different parts of the human body have different densities, and there is a natural contrast that allows these organs to be easily distinguished, X-ray examination of those parts is the best. provides more information. Chest radioscopy reveals such a natural radiological contrast that there is air in the dense heart and cardiovascular tissue, i.e., it is surrounded by a low-density lung, as well as a skeleton. a similar phenomenon is observed when radioscopy is performed, in which dense skeletal bones containing mineral salts are surrounded by muscles with less density. Thus, it is possible to examine the heart and lungs directly on a screen or on an X-ray. The work becomes more difficult when it comes to X-ray examination of organs and systems that do not differ in density from the surrounding organs and tissues. This applies to the examination of the esophagus,, brain with organs of the abdominal cavity. In such cases, the artificial contrast method is used.

X-ray contrast agents were proposed shortly after the discovery of X-rays. With this method - first the digestive organs were examined, then other organs and systems were also examined. X-ray contrast agents used in X-ray diagnostics are divided into two groups.

1. High-density X-ray contrast agents that capture X-rays and cast a shadow that is much thicker than the tissue around the organ being examined. Currently, mainly iodine and barium compounds are used.

2. X-ray contrast agents, the relative density of which is less than that of the organ being examined and which are easily permeable to X-rays.

These include oxygen, helium, nitric oxide, and carbon dioxide. In practice, oxygen is used more than anyone else.

Contrast methods are divided into 3 groups depending on how the X-ray contrast agent is delivered:

1) X-ray contrast medium is sent through the natural pathways (holes) of the human body;

2) X-ray contrast agent is injected into the bloodstream;

3) The X-ray contrast agent is delivered directly to the tissues, organs, and connective spaces. The contrast method is used to examine the digestive organs (esophagus, stomach, small intestine and colon) by using an aqueous emulsion of barium sulfate, which is given to the patient as an emulsion or enema. The trachea, bronchi (bronchography), bladder, (cystography), thoracic cavity (mediastinography), nasal cavities (rhinography), anterior nasal cavities (additional cavities) are also examined in the same way.

Many neighboring organs in the body have the same density. In conventional radioscopy, the shadows of these blend together, reducing the benefit of the examination. However, even in such cases, by sending an X-ray contrast agent to the organ being examined, it is possible to detect a sharp difference on the X-ray screen or X-ray between that organ and the surrounding organs and tissues. Sometimes air is sent to the hollow, hollow organs - the stomach, intestines, abdominal cavity, which - to create a contrast between the air organ and neighboring organs allows.

Members are often layered on different levels or closely intertwined. In such cases, if light is given, the shadow of all the organs will fall. This shadow is the result of the fusion of the shadows of the closely intertwined limbs. For example, when the lungs are exposed to light, the lower parts appear brighter than the ends, but in both cases the cause of the light is the same, i.e. air. The less radiant appearance of the ends of the lungs depends not only on the amount of air, but also on the fact that the shoulder muscles are a thicker layer.

X-ray examination is performed in curved or lateral projections (directions) to prevent the shadows from overlapping. Examination of the curved projection can reveal the size of the irradiated area, as well as pathological changes in it. This is because the size of the member being depicted depends on the distance from it to the screen, the farther away the object being illuminated is from the screen, the larger the shadow of the member. Examination methods in different projections are also used to determine the locations of the irradiated limbs.

Radiography consists of taking an image of the object being examined on a light-sensitive material (a film coated with silver bromide). X-rays decompose silver bromide. For radiography of any part of the body, an object to be photographed is placed in the middle of the photomaterial, which is protected from visible rays by an X-ray source; the object being photographedpassing through different environments (air, texture) of the ect, X-rays attenuated to different degrees have different effects on silver bromide, so that in the photomaterial this compound decomposes differently. After the photo is taken, the film or plate is removed and fixed. On the radiograph, the dense tissue appears light, while the air with soft tissue appears black. X-rays are performed where more detailed imaging of minor pathological changes is required. Such changes may be overlooked by the physician at the time of exposure to light, but may be reflected on the radiograph. X-rays taken at different times allow to study the dynamics of the process.

X-rays are scattered in space, so that the size of the image of the place to be irradiated is larger than the true size of the object being examined. To approximate the image size to the natural size of the limb being examined, it is necessary to place the limb closer to the screen or plate during the radiological examination. When this is done, the shadow contrast also becomes clearer. A specialized radiological method is used to obtain more accurate information about the size of the organ being examined. You need to use a non-scattering, central handle of light to capture the image. For this purpose, the device uses special screens that allow you to download the form of the checked member.

Fluorography allows to conduct mass radiological examination in the short term. An image obtained using fluorography equipment is called fluorography. Fluorography is widely used to detect the process of tuberculosis in the lungs. Fluorography is essentially an X-ray image of the lungs on a screen taken with a FED device, which is then placed on a fluoroscope and examined. It is possible to take around 100 photos in an hour. When the lungs are found to be infected with tuberculosis, X-rays are taken to "identify" them.

The function of the moving organs - heart, stomach, large vessels, ribs, diaphragm - has been studied in recent years using X-ray genochemography.

X-ray examination of the chest organs.

Radioscopy is often the first step in the radiological examination of the chest organs. Radiography is widely used to obtain accurate and precise diagnoses in order to effectively treat diseases of the respiratory system.

The main and most common method of exposure to light is direct radioscopy (orthoscopy). Orthoscopy can be understood as seeing a patient standing upright. The patient is exposed to light in different directions, that is, using different projections - straight, lateral and curved projections. If necessary, patients are examined by placing them in a horizontal position, where they can lie face down, back, sideways.

When the chest is exposed to light, the lungs are normally in the form of a bright area, in which the shadows of the veins and bronchi are visible. Light lung areas will be crossed by dark shadows falling from the ribs. On X-rays of a normal lung, the periphery of the lung is lighter than the root of the lung, and the ends are thinner because the air layer in them is thinner and falls on the shadow of the muscles of the upper arm (shoulder girdle). , appears darker. When a person takes a

deep breath, the lower parts of the lungs become brighter due to the thickening of the air layer in them. The incisions of the bronchi are in the form of bright circles of black character. X-ray examination of the lungs based on changes in the clarity of the lung areas in zi diseases. When the amount of air in the lungs increases, the clarity of the lung area increases. Areas of light are extensive in diffuse emphysema, pneumosclerosis, limited in cavernous, abscesses. When air is squeezed out of the lungs and the tumor is replaced by fluid, the clarity of the lung pattern decreases scattered or finite, or areas that are bright appear darker. When there are abscesses and tuberculous cavities connected to the surrounding air through the bronchi, fluid is formed in the lungs: these abscesses and caverns look like framed black cups, the horizontal level of which varies at different heights depending on the amount of fluid inside. and above it will be a bright spot corresponding to the air bubble. When the amount of air in the lungs increases, the clarity of the lung area increases. Areas of light are extensive in diffuse emphysema, pneumosclerosis, limited in cavernous, abscesses. When air is squeezed out of the lungs and the tumor is replaced by fluid, the clarity of the lung pattern decreases scattered or finite, or areas that are bright appear darker. When there are abscesses and tuberculous cavities connected to the surrounding air through the bronchi, fluid is formed in the lungs: these abscesses and caverns look like framed black cups, the horizontal level of which varies at different heights depending on the amount of fluid inside. and above it will be a bright spot corresponding to the air bubble. When the amount of air in the lungs increases, the clarity of the lung area increases. Areas of light are extensive in diffuse emphysema, pneumosclerosis, limited in cavernous, abscesses. When air is squeezed out of the lungs and the tumor is replaced by fluid, the clarity of the lung pattern decreases scattered or finite, or areas that are bright appear darker. When there are abscesses and tuberculous cavities connected to the surrounding air through the bronchi, fluid is formed in the lungs: these abscesses and caverns look like framed black cups, the horizontal level of which varies at different heights depending on the amount of fluid inside. and above it will be a bright spot corresponding to the air bubble. Areas of light are extensive in diffuse emphysema, pneumosclerosis, limited in cavernous, abscesses. When air is squeezed out of the lungs and the tumor is replaced by fluid, the clarity of the lung pattern decreases scattered or finite, or areas that are bright appear darker. When there are abscesses and tuberculous cavities connected to the surrounding air through the bronchi, fluid is formed in the lungs: these abscesses and caverns look like framed black cups, the horizontal level of which varies at different heights depending on the amount of fluid inside. and above it will be a bright spot corresponding to the air bubble. Areas of light are extensive in diffuse emphysema, pneumosclerosis, limited in cavernous, abscesses. When air is squeezed out of the lungs and the tumor is replaced by fluid, the clarity of the lung pattern decreases scattered or finite, or areas that are bright appear darker. When there are abscesses and tuberculous cavities connected to the surrounding air through the bronchi, fluid is formed in the lungs: these abscesses and caverns look like framed black cups, the horizontal level of which varies at different heights depending on the amount of fluid inside. and above it will be a bright spot corresponding to the air bubble. in cases of fluid exchange, the clarity of the lung pattern decreases scattered or finite, or areas that are bright appear darker. When there are abscesses and tuberculous cavities connected to the surrounding air through the bronchi, fluid is formed in the lungs: these abscesses and caverns look like framed black cups, the horizontal level of which varies at different heights depending on the amount of fluid inside. and above it will be a bright spot corresponding to the air bubble. in cases of fluid exchange, the clarity of the lung pattern decreases scattered or finite, or areas that are bright appear darker. When there are abscesses and tuberculous cavities connected to the surrounding air through the bronchi, fluid is formed in the lungs: these abscesses and caverns look like framed black cups,

the horizontal level of which varies at different heights depending on the amount of fluid inside. and above it will be a bright spot corresponding to the air bubble.

Radiography allows the identification of a number of important details related to the condition of the chest organs, as radiography can shed more light on the condition than radioscopy. On radioscopy, small focal shadows, some changes in lung pattern, and others may go unnoticed. A complete radiological examination of the chest organs includes both radioscopy and radiography. Chest radiographs are taken in straight, lateral and curved projections

Chest radioscopy can be used to find dense areas in the lungs (for example, during lung cancer or tuberculosis, pneumonia, etc.), to detect excess air in the lungs from the emphysema, to detect airborne structures (abscess , cavernous), the development of connective tissue in the lungs (pneumosclerosis), the presence of fluid or gas in the pleural cavity.

X-ray examination of the respiratory organs is performed using bronchography. Bronchography is the examination of the bronchial tree after an X-ray contrast agent has been injected into its pathway. Bronchography technique: After anesthesia of the larynx, an X-ray contrast agent - iodolipol - is injected into the bronchus through the catheter, and then a lung image is taken.

Bronchography detects the presence of bronchiectasis, a tumor in the lungs. In bronchiectasis, an X-ray contrast agent fills the cavity and shows an image of the bronchi in the image. If there is a tumor blocking the bronchial tract, the image of the bronchus will not be complete. Such cases are called “bronchial amputation” or “chultori”. The X-ray contrast agent sent on bronchography is absorbed after 1-2 days, excreted with sputum.

Tomography. Tomography has recently become of great importance in radiodiagnostics. In tomography, the image of the whole object is not formed on the radiograph, but a certain layer, and then an image of the layer at a depth that is of interest to the doctor. Tomography is very different from X-ray.

By changing the distance between the X-ray tube and the object and taking several X-rays from different levels, it is possible to create a series of images, in which the object is cut into individual pieces, as if longitudinally or transversely. It turns out to be a snake. For tomography, cassettes containing 4-5 films at a time are now used, which allows to capture the image of several layers at once.

Tomography is mainly used to examine the lungs. Lung cancer, interstitial tumor, cavernous, abscess, tuberculosis, silicosis, bronchiectasis, which are hidden under the interstitial fibrosis changes or behind large structures in the pleura, can be found with its help. Tomography allows accurate knowledge of the topography of invisible cavities. It is used to determine not only the affected areas, but also how deep they are.

Preparing patients for bronchography. Bronchography is a method of radiological examination by filling the inner surface of the trachea and bronchi with a contrast agent.

Indications for bronchography: to determine the location of the pathological process in various diseases of the bronchi and lungs, to examine the surface of the bronchi, which is not visible on bronchoscopy, to determine the volume of surgical treatment in the lungs, etc.

The following is used in the preparation of the patient:

1. A preliminary test is performed to determine the response of the patient to iodine-containing agents (the patient is given 1 tablespoon of 3% potassium iodide solution for 2-3 days).

2. The purpose and essence of the examination are explained to the patient.

3. In case of purulent sputum, the bronchi are cleaned 3-4 days before the examination.

4. Phenobarbital subcutaneously 30-60 minutes before examination0.1 g), atropine sulfate (0.1% li-1ml), pipolfen (0.025 g) is ordered to send.

Necessary equipment: Bronchoscope, sterile table, alcohol, napkin, soap, infectious needles, catheter, cotton swab, forceps, 0.1% tremaicain, dicaine, 10% novocaine.

Depending on the purpose of the examination, anesthesia or local anesthesia is used. For local anesthesia, 2% dicaine and 3-5% novocaine solutions are used.

Flexible probes and controlled catheters are used to fill the bronchi with contrast material. The examination is performed by a doctor.

Sensitivity of control methods, specificity and informativeness

The sensitivity of the screening method determines how much of a particular clinical sign a patient has. For example, the ECG result before and after veloergometry for the detection of myocardial ischemia is 50 to 80 percent, i.e., if the state of ischemia after physical exertion is actually recorded in 100 patients, 50-80 after veloergometric probe gives a positive result in one patient and a psebdo-negative result in the remaining patients.

Specificity of the inspection method (calculated on the basis of inspection of a healthy contingent). Specificity indicates the number of errors of the verification method. For example, in absolutely healthy people, a bicycle ergometric test without really myocardial ischemia gives a negative result in 80-95 of the healthy people who pass 100 tests, and the remaining 5-20 are pseudo-positive.

The informativeness of the control method is not quantitative, but the need for this method in this pathology is taken into account. For example, a general chest radiograph "may not provide the information needed to diagnose angina pectoris." The informativeness of the ECG veloergometry test is high for this diagnosis.

Evaluation criteria №6

The name of the topic	Ball	Baho	The level of knowledge of the student
Pulmonary auscultation: additional respiratory noises (dry and wet wheezing, crepitation and pleural friction noises). Diagnostic value. Bronchophonia. Methods of functional and instrumental examination of patients with respiratory diseases: spirometry, pneumotachometry, oxyhemotherapy. Methods of X-ray examination of the lungs, bronchoscopy, bronchography, tomography. Diagnostic value.	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Independent work. Comparative diagnosis of primary and secondary respiratory noise. Pneumonia Homework. №7

Practical training №7

Lung tissue condensation syndrome (in the example of crouposis and focal pneumonia). Pulmonary cavity syndrome (in the case of pulmonary abscess and bronchiectasis). Diagnosis, etiology and pathogenesis. Basic principles of treatment

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training

Practical training plan	Laboratory examination: examination of sputum and pleural fluid. Bronchial permeability syndrome. Diagnosis of acute and chronic bronchitis. Adverse effects of smoking on the respiratory system.
The purpose of practical training:	Students laborative examination: introduction to methods of examination of sputum and pleural fluid. Study of acute and chronic bronchitis.
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	1. Controls the cleanliness of the audience 2. Checks students' readiness for classes 3. Controls attendance	
1. Introductory stage of training (10 minutes)	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
2 - the main stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment 5. Summarizes and summarizes the information provided on the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. What is the main function of applied medicine?
2. What is the disease?
3. What causes of the disease do you know?
4. What is diagnosis and diagnosis?
5. What is dentistry?
6. What medical documents do you know and when will they be filled out?
7. What is a symptom?

8. What symptoms do you know?
9.Which complaints are the main and which are the additional complaints?
10. What should be identified in the inquiry into the development of the disease?
11.Which points of the patient's life history are included?
12. What is the purpose of obtaining an allergic history?
13. What is the method of palpation?
14. The diagnostic value of the method of palpation?
15. What is the method of percussion?
16. The diagnostic value of the percussion method?
17. To give an idea of the method of auscultation?
18. The diagnostic value of auscultation?

"Academic controversy" method

The group is divided into two groups, each of which is assigned a situational issue, for example, “consultation doctor-patient”. In each group, 1-2 students write down the pros and cons of the consultation - "lawyers", the other 2 students write down the disadvantages of the consultation - "prosecutors".

The findings of lawyers and prosecutors are analyzed by the whole group.

Subject statement

Krupoz zotiljam (nosocomial and external pneumonia)

Krupoz zotiljam is an inflammation of one or all parts or segments of the lungs, which is an acute, sudden onset and is accompanied by a violation of microcirculation, and the process can spread to the pleura.

Classification of pneumonia

I. Outside the hospital.

II. Nosocomial pneumonia (if hospitalized within 48 hours).

III. Aspiration pneumonia.

IV. Pneumonia caused by a disorder of immunogenesis.

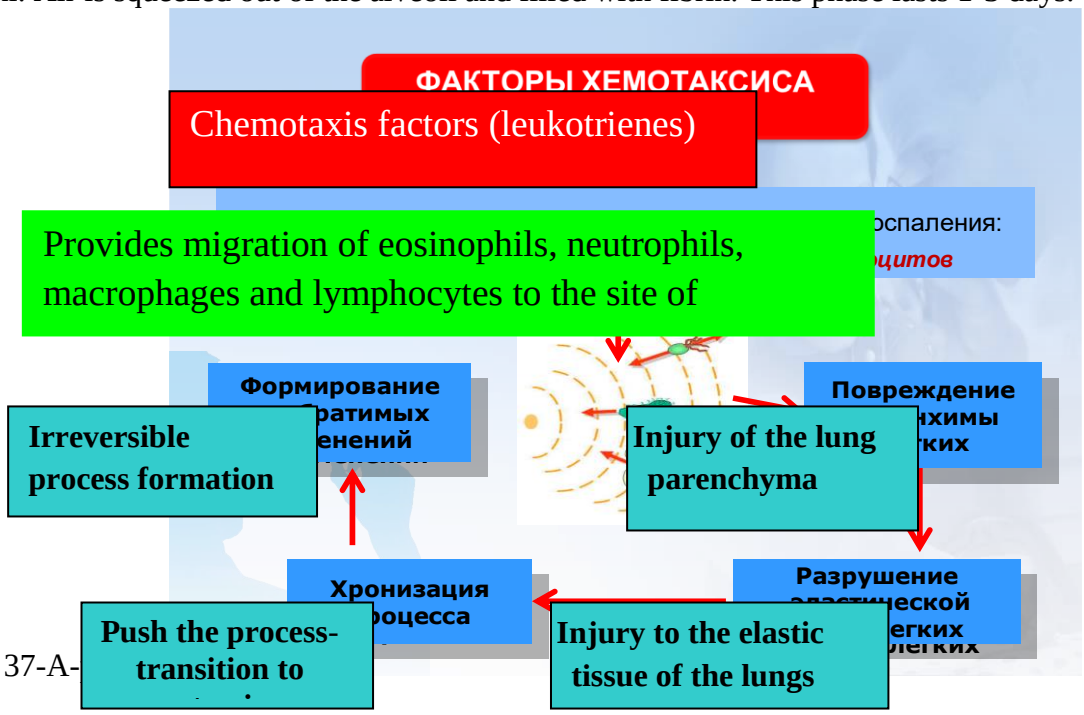
Inquiry. Patients are mainly cough with rusty sputum secretion, shortness of breath, shortness of breath, chest pain and pain are exacerbated by coughing, deep breathing, temperature rise to 39-40º C, fever, sweating, weakness, headache due to intoxication, muscle pain.

Etiology and pathogenesis;The origin of the disease is the role of infection and some diseases (diabetes, systemic diseases, suffocating toxins). The main ones are pneumococci, Friedlander diplobatsilla, staphylococci. Other factors include frostbite, mucociliary clearance disorders, decreased surfactant activity in the alveoli, decreased phagocytic activity of macrophages and neutrophils in the lungs, decreased immunity, excessive alcohol consumption, and constant exposure of the respiratory tract to toxic substances, gases, and dust. exposure contributes to the onset of the disease. Microorganisms enter the alveoli from the bronchial airways mainly through the air into the lungs and cause inflammation. As a serous tumor, where an environment is created for the reproduction of microorganisms. In the inflamed area, inflammatory mediators; biologically active substances such as histamine, bradykinin, seratonin are released from fat cells and dilate the capillaries between the alveoli and increase their permeability. In lung tissue, lysosomal enzymes are released from the lysosomes, deepening the inflammatory process. Due to this, clinical signs of inflammation in the lungs occur.

Pathomorphological changes in the lungs occur in 4 stages.

I. The stage of dilation and hyperemia of the pulmonary capillaries under the influence of biologically active substances. In this case, the capillaries between the alveoli dilate, hyperemia occurs in the lung tissue, as a result of increased permeability of the capillaries, inflammatory exudate accumulates in the alveoli, lasting 3 days.

II. In the red brown stage, erythrocytes and protein (fibrinogen) and others (the process of chemotasis takes place (Fig. 37 a)) pass from the blood vessels to the exudate in the alveoli and small bronchi. Air is squeezed out of the alveoli and filled with fibrin. This phase lasts 1-3 days.



37-A-

III. From the time of erythrocyte breakdown and the release of hemosiderin from the hemoglobin content in them, the gray browning phase begins, the leukocytes in the exudate increase, reminiscent of gray liver when cut. When examined under a microscope, neutrophils that phagocytose pneumococci can be seen. Phase III lasts -3- 6 days.

IV. The recovery phase begins on days 7-10 of the illness. At this stage, the fibrins in the alveolar cavity slowly dissolve, the epithelial tissue in the alveoli moves, and neutrophils containing pneumococci begin to pass through the bronchi along with the macrophages, which phagocytose, and the exudate is slowly absorbed. Lung tissue softens, but does not quickly return to a state of elasticity. The duration of this stage depends on the size of the inflamed area, the virulence of the disease-causing microbe.

Examination of patients. The patient's breathing (especially when a large part of the lung is inflamed) is accelerated and shallow. On examination, patients have cyanosis of the lips, nose, ears, rash on the lips, mouth and nose.

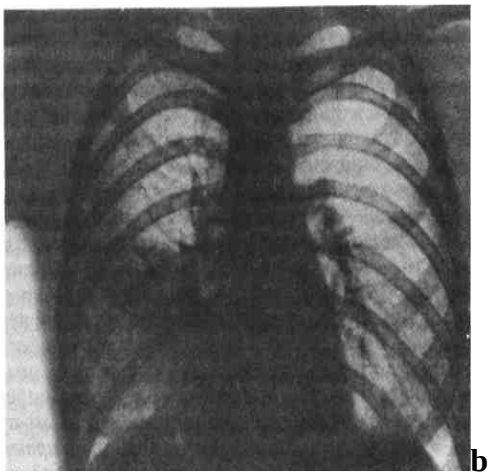
On palpationsound drill is intensified. When percussion is performed, a shortened percussion or hoarse tympanic sound is heard in the area of the inflamed part of the lung.

On auscultation, there is a decrease in vesicular respiration in the area of the inflamed part of the lung, as well as short-term early-onset crepitation (crepitatsio indux) in the first clinical stage, bronchial respiration in the second clinical stage, and crepitation redux in the third clinical stage. Occasionally a pleural effusion is heard. Patients will have increased bronchophonia.

In stage II of the disease, when the patient coughs, iron-colored sputum is released. The general condition of the patient is quite severe. Palpation reveals chest pain, increased sound vibration. It is very suffocating when percussed

a sound is heard. On auscultation, bronchial breathing sounds are heard. Bronchophonia intensified.

In stage III, mucous and purulent sputum begin to separate, and on palpation, percussion, and auscultation, these changes are similar to those in stage II.


b 37 photos c


In stage IV or clinical stage III of the disease, the body temperature decreases and mucous sputum begins to be secreted more. The patient's general condition begins to improve. Palpation may reveal a decrease or disappearance of pain, a slight decrease in sound vibration, and a restoration of chest resistance. Slightly muffled sound may be heard on percussion, bronchovesicular breathing noise, rough crepitation (crepitatsio redux) and wet wheezing on auscultation.

X-ray in the diagnosis of the disease The method of verification plays an important role. X-rays taken from the front and back show a thickening of the shadow of the diseased lung piece.
The radiograph described croupous inflammation of the right lung. On the radiograph, it is possible to determine which part of the lung is inflamed, the size. X-ray changes show a focal shadow in the area of lung tissue hardening (Fig. 37 b and c).

Laboratory test method. To fully diagnose the disease, the patient's blood, sputum, urine, blood protein should be tested in the laboratory. Laboratory testing; leukocytosis with a shift to the left of the leukocyte formula (15-300000 in 1 μl of blood), rod nucleus neutrophils increase by 30%, erythrocyte count increases, aneosinophilia, ECG increases to 40-45 mm / s. The relative amount of large dispersed proteins in the blood increases. An increase in the amount of fibrinogen, mucoprotein, seromucoid, haptoglobulin, sialic acid, serum globulins, a decrease in albumin, a positive C reactive protein is observed. Changes in the patient's sputum are in stage I, depending on the stage of the diseasemucous, in stage II there is a mixture of blood (similar to iron rust), in stages III-IV there is a mixture of mucus and pus.

If the body temperature is high, there may be proteinuria and cylindruria in the urine. When examining sputum; patients may see many erythrocytes, fibrins, and leukocytes in the sputum stage in the sputum.

Bronchiectasis and Zivert-Cortagener syndrome

Bronchiectasis (bronchoectasia) is a pathological enlargement of the bronchi. Bronchiectasis is a chronic disease, one of the hallmarks of which is the appearance of dilated bronchi of various shapes.

The etiology of bronchiectasis is diseases such as severe bronchitis, whooping cough, and in the pathogenesis of inflammation spreads to the submucosal and muscular layer of the bronchi, causing bronchial muscle atrophy and thinning due to microcirculatory disorders. Atrophied bronchi dilate due to loss of elasticity in deep breathing acts. Another reason for the dilation of the bronchi is that as a result of inflammation, scars appear on them, they are stretched, bent, change shape. Bronchiectasis also often occurs as a result of a prolonged inflammatory process. Pleurisy, which causes hard scars, also contributes to the onset of the disease. Congenital anomalies in the structure of the bronchial wall in the exacerbation of bronchiectasis, in particular, there is speculation that the weakness of the muscular and elastic elements, which leads to dilation of the bronchi on both sides, also plays a role. It should be considered that the occurrence of bilateral bronchiectasis is caused by infectious-inflammatory processes in the bronchi, lungs or pleura.

Depending on the form of dilation of the bronchi, the following bronchiectasis is distinguished: a) cylindrical, b) capillary, c) fibrous d) mixed forms are distinguished.

Clinic of the disease;The main symptom is coughing mucus or blood mixed with purulent sputum, the sputum is smelly, the cough is mainly in the morning, a large amount of sputum (500 ml and more) is excreted. Fever is also bothersome during an outbreak. Patients are bothered by asthenoneurotic syndromes such as headache, weakness, sweating, decreased ability to work, which are signs of intoxication. Sometimes a sudden symptom is blood spitting.

Review. Patients lag behind in physical development when they are sick from childhood, and the subcutaneous fat layer is underdeveloped. Patients have cyanosis and a slightly swollen face, chest emphysematosis, fingertips like a drumstick, and the nail looks like a clock face. On percussion, a tympanic sound is heard when the bronchiectasis is large. On auscultation, the remission period is dry and the attack period is small and medium-sized wet wheezing. On radiography, the picture of the lungs is intensified, cellular, the projection of the dilated bronchi is bright. Bronchographic examination provides good information and we can see various enlarged parts of the bronchi. On bronchoscopy, we can also see enlarged bronchial trees. Complications. Pulmonary hemorrhage, lung abscess and gangrene,

Bronchiectasis can also be congenital. Autosomal is passed from generation to generation through a recessive pathway, and this is manifested by a triple symptom in Zivert-Cortagener syndrome. These are bronchiectasis, chronic sinusitis with polyps, rhinorrhea, and inversion of internal organs (situs viscerum inversus). In 1902AK Zivert, a physician from Kiev, reported that a 21-year-old man was diagnosed with bronchiectasis and upper respiratory tract defects (curvature of the nasal passages, curvature of the nasal septum, constricted larynx). In 1933, the Swiss therapist Cortagener declared that such pathology was observed in familial cases. Cortagener noted that 50-60% of patients had eyelash dysfunction.

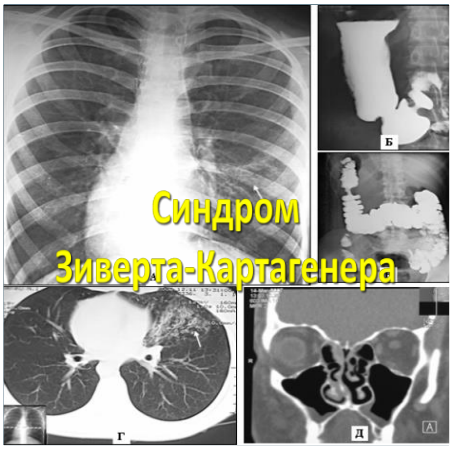


Figure 40-41

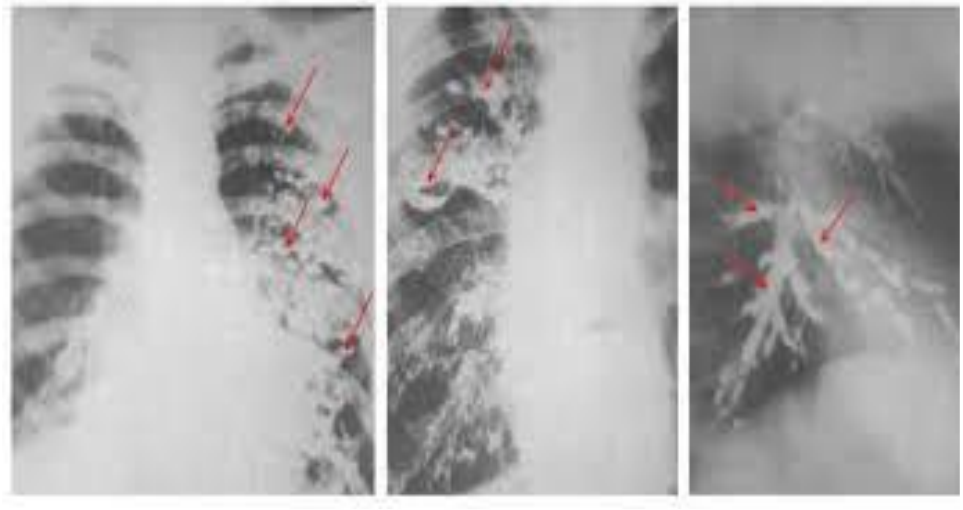
The radiograph shows Zivert-Cortagener syndrome.

The radiograph shows Zivert-Cortagener syndrome.

The clinical manifestations of the disease are primarily characterized by sputum cough. The characteristic aspect of the cough is that it mainly changes the patient's lying position to the right or left or is disturbed in the morning. This is because in the evening the sputum accumulates in the enlarged cavity and in the morning the sputum moves to the bronchi and causes a cough. Sputum is excreted in large quantities; it becomes purulent, fluid, and easily moved, "filling the mouth." Sometimes sputum is secreted more, especially when the patient is lying on his side. This makes it easier to determine which side of the lung the bronchiectasis is. If the patient coughs while lying on his left side and complains of excessive sputum secretion, this indicates that the cavity is on his right side. Sputum flows into the bronchi, which carry it out according to its weight. Bilateral, this phenomenon is not observed in a large number of bronchiectasis. Patients are forced to wash with a special container that covers their mouths, as they secrete a lot, especially odorous sputum. Occasionally there is a mixture of blood in the sputum due to the appearance of ulcers in the dilated bronchi. This type of disease is sometimes thought to be due to pulmonary tuberculosis due to blood spitting.

When the lungs are examined by percussion, a tympanic sound is heard over the part of the lung where the dilated bronchi are located. A rattling sound is heard over large gaps in the cladding and smooth walls. In some cases, it is possible to change the position of the cavity-specific body, to

create other sound phenomena that occur during the opening or closing of the mouth, as well as the sound of a cracked pan. When the site of bronchiectasis is auscultated, bronchial breathing or its amphoric breathing type is heard, usually large and resonant wheezing (the pitch depends on the resonance from the large cavity and the thickening of the bronchial wall). The area of bronchiectasis, vocal resuscitation, and bronchophonia increase. Review. Due to the appearance of scarring in the lungs and pleura, if the bronchi are dilated, the diseased side of the chest is felt to be smaller when the patient is examined, this part of the chest is slightly sunken, and this side is not raised sufficiently when breathing. Another symptom common in bronchiectasis is that the tips of the patient's fingers become blunt like drumsticks. The cause of such a change has not yet been determined. Trophic disorders may play a role in this (thinning of some bones, especially tubular bone tissue — is also the cause of osteoporosis). The tingling of the patient's face also attracts attention, which is due to the patient's constant coughing. The general condition of the patient does not change for a long time. Body temperature is usually normal,



41 a photo

On radiological examination (Fig. 41 a), bronchiectatic enlarged cavities appear in the form of ovoid light spots: these are usually solitary, or in groups, near the root of the lung, in the lower part of the lung. located in the section; scarred and infiltrated around the bright spot, dark bands of streaks appear, they spread throughout the bronchi, secretions accumulate in the cavities themselves, in adults they appear horizontally located fluid, the body as the state changes, this fluid level also changes.

This is the case when sacral bronchiectasis occurs. In cylindrical bronchiectasis, the tracts are rougher, they are more located in the lower part of the lung and protrude from the root of the lung. Cylindrical bronchiectasis occurs in dilated and thickened bronchi (they do not appear when the bronchi are atrophied and the wall is thinned: they can be seen only when they are filled with secretions). However, even though the bronchi are dilated, they are sometimes not detectable on radioscopy (because there are so many very small bronchiectasis). In such cases, bronchography is used. When a contrast agent is inserted into the relevant section of the bronchial network to be examined, a similarly clear and beautiful picture is formed when a picture is taken of it:

The disease is chronic, sometimes exacerbated, sometimes declining. The patient does not recover completely. Patients become overloaded for themselves and others (especially when the sputum smells bad).

TreatmentThe patient is given terpene hydrate and sodium benzoate to reduce sputum and eliminate its odor, which does not give good results. Treatment with sulfanilamides (sulfazole, sulfatiazole, sulfadiazine) provides some benefit, which is recommended at a course of 6-8 g per day for 3-5 days. Antibiotics are also used in large doses. Bronchiectasis in both parts of the lung cannot be treated surgically. Timely and proper treatment of bronchitis and chronic obstructive pulmonary disease is important in the prevention of this disease.

Evaluation criteria №7

The name of the topic	Ball	Baho	The level of knowledge of the student
Lung tissue condensation syndrome (in the example of crouposis and focal pneumonia). Pulmonary cavity syndrome (in the case of pulmonary abscess and bronchiectasis). Diagnosis, etiology and pathogenesis. Basic principles of treatment	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Independent work. Bronchial asthma
Homework 8

Practical training №8

Impaired bronchial permeability syndrome. (in the example of acute and chronic bronchitis, obstructive and nonobstructive bronchitis). Flatulence syndrome (in the case of bronchial asthma, pulmonary emphysema). Examination of obstructive pulmonary disease. Diagnosis, etiology and pathogenesis. Basic principles of treatment

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training
Practical training plan	Increased airway syndrome in lung tissue. Examination of patients with obstructive pulmonary disease, bronchial asthma, pulmonary emphysema. Lung tissue condensation syndrome. Inflammatory disease of lung tissue (crouposis and focal pneumonia).
The purpose of practical training:	Students oIntroduction to diseases associated with flatulence and pulmonary congestion syndromes.
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	16. Controls the cleanliness of the audience 17. Checks students' readiness for classes 18. Controls attendance	
1. Introductory	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory	

phase of the training (10 minutes)	speech 3. Develop a list of references used in the study of science	
2nd stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment 5. Summarizes and summarizes the information provided on the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. Describe the causes of airway obstruction syndrome in lung tissue
2. Give bronchial asthma.
3. The main etiological factors that cause bronchial asthma
4. Pathogenesis of bronchial asthma
5. Clinic, course and diagnosis of bronchial asthma
6. Causes of pulmonary emphysema
7. Clinical course and diagnosis of pulmonary emphysema
8. Describe the causes of lung tissue condensation syndrome (UTZS)
9. The importance of palpation in UZS
10. The importance of percussion in UZS
11. The importance of auscultation in UZS
12. Classify the hearth zotiljam.
13. The main factors that cause heartburn
14. Pathogenesis and clinical manifestations of migraine
15. Krupoz zotiljam Urinary incontinence syndrome in the pleural cavity
16. Pathological and genomic changes in the lung tissue of the croupous zygote
17. Stages of clinical course of crouposis
18. Srepitatio indux nima
19. Srepitatio redux nima
20. Diagnosis of croup zotiljam

The "three-step interview" method

Three students will be selected in each group, and the roles of "doctor", "patient" and "expert-UASh" will be divided between them. The student who chooses the patient role is told an anonymous diagnosis, and he or she makes complaints about that diagnosis, the doctor makes a diagnosis, and the expert checks the UASh complaints and the proportion of the diagnosis. Each group is consulted for 10-15 minutes, the expert examines the activity of the doctor on 3 points:

7. What was done right
8. What went wrong
9. How to do it

The conclusion of the group consultation is compared with the conclusion of the expert.

Another type: students are analyzed by the whole group, participating in the clinic in the role of an expert, in a real consultation.

Acute bronchitis

Acute bronchitis is an acute diffuse inflammatory disease of the mucous membrane or subcutaneous layer of the bronchi.Acute bronchitis is more common during inflammation of the upper respiratory tract, epidemics of acute respiratory and viral diseases.

Etiological factors are divided into 2 groups. It is divided into infectious and non-infectious factors. Infectious - bacteria,pneumococci, hemolytic streptococci, golden streptococci, influenza virus and others viruses, Friedlender bacilli,fungi, etc. enters and directly or by hematogenous route sfrom the foci of chronic infection the infection descends into the bronchi. The second non-infectious group includes acid and alkali vapors, ionizing radiation, and so on.In the development of acute bronchitis, inhalation of air containing high levels of nitric oxide, sulfur dioxide, chlorine, bromine, ammonia vapors, as a result of inhalation of toxic chemicals (chlorine, phosgene, diphosgene, mustard gas, leucite, organophosphorus compounds) and develops in those receiving high doses of radiation. Acute bronchitis can also develop as a result of prolonged inhalation of air containing large amounts of dust.

However, there are factors that contribute to the onset of the disease.Etiological factors that predispose to the development of the disease include frostbite, dust, high humidity, alcohol abuse, smoking, chronic poisoning from certain chemicals. The presence of foci of infection in the upper respiratory tract (sinusitis, gingivitis) is also a factor contributing to the development of acute bronchitis.

Pathogenesis. The bacterial agent, its toxins damage the mucous membranes of the upper respiratory tract and bronchi, the nodes of the sympathetic nerve fibers, which in turn leads to a violation of bronchial trophism. Bacterial agents and the harmful substances (toxins) they produce dramatically reduce the protective properties of the respiratory tract, the ability of specific and nonspecific resistance, resulting in inflammation of the bronchi.

Primary bronchitis is caused by direct exposure of the bronchial tree to tobacco smoke or atmospheric air by various harmful factors and microorganisms.

Secondary bronchitis - bronchitis usually occurs as a result of rhinosinusitis, chronic lung abscess and other diseases, ie measles, whooping cough, tuberculosis, diseases of the cardiovascular system, diffuse systemic diseases of the connective tissue.

Pathological changes - redness and swelling of the mucous membrane, infiltration of the submucosal layer with neutrophils and lymphocytes, migration and degeneration of cylindrical epithelium, proliferation of squamous cells are observed.

Classification. Infectious (bacterial, viral), non-infectious-chemical, physical, mixed and bronchitis of unknown etiology by etiology. Depending on the nature of the exudate - catarrhal, purulent - tracheobronchitis, bronchitis, bronchiolitis, etc.

Clinic of the disease. In the early days, the cough becomes dry, followed by difficult-to-separate mucous sputum, or with the separation of pus mixed mucus or purulent sputum. Decreased ability to work in patients, colds, headaches are disturbing. When small-caliber bronchi and bronchioles are injured, as well as in bronchoobstructive syndrome, there is an increase in respiratory rate, shortness of breath, shortness of breath and even shortness of breath.The disease begins with pain around the sternum, characteristic of acute inflammation of the upper respiratory tract, when the inflammation spreads to the bronchi, there is shortness of breath and a series of coughs, patients do not they feel pain in the lower part of the chest during urination. Weakness, sweating, fever up to 37.5-38 ºC, and herpes labialis in patients with influenza.

Palpation and percussion changes are not characteristic of acute bronchitis. On auscultation, patients hear hard (rough) breathing and dry wheezing. Wet wheezing (large, medium, small caliber wet wheezing) is heard when sputum is released along with the cough. In the evening with bronchoobstructive syndrome, dry wheezing or wheezing is heard in the lungs, followed by a decrease in wheezing. On 2–3 days of the disease may appear wet wheezing. There is no change in the chest radiograph in acute bronchitis. When external respiratory function is checked, the vital capacity of the lungs and maximum ventilation are reduced by 15-20%. Oxygen saturation of the

blood is not disturbed by an increase in the minute (minute) respiratory rate (capacity). There is an increase in leukocytes in the blood due to neutrophils 8-12 * 10.9 / l, an increase in erythrocyte sedimentation rate (ESR). The mild form of acute bronchitis is short-lived (2-3 days), the patient feels unwell, he passes with subfebrile fever, cough, pain around the sternum. In severe form there is an increase in body temperature, cough, sputum migration, leukocytosis in the blood and increased ECG.

Differential diagnosis.X-ray examination of the chest plays an important role in distinguishing acute bronchitis from focal bronchitis. In acute bronchitis, there is no change in the radiograph. In acute pneumonia, a shadow appears on the inflamed part of the lung.

Treatment. Patients with a mild form of acute bronchitis are often treated at home. It is necessary to protect the patient from cold, severe heat. Anti-inflammatory and analgesic drugs - analgin 0.5 to 3 times, amidopyrine 0.5 to 3 times, vitamins, more vitamin C are prescribed.Mucolytics (thermopsis decoction and tincture, mucaltine, bromhexine, 2% sodium bicarbonate in inhalation) to facilitate sputum migration. Tablets Libexin, Kodelak. Syrups (pertussin, broncholitin, lazolvan, ambroccol). Antibiotics-penicillin, ampicillin, (0.5x4r), erythromycin 0.25x4r, bactrim (biseptol), ciprofloxacin 0.5x4r, klabel 500 mg. Antihistamines (suprastin, tavegil, loratal, ketotifen, fencarol, etc.). Calcium gluconate, calcium chloride 10% -5-10.0 v / v.

From distractions put a jar on the chest, mustard, foot baths recommended is done. Lots of hot boiling drinks (tea with honey, lemon, raspberry jam).

In order to prevent the transition from acute bronchitis to chronic bronchitis, it is recommended to use a complete treatment of the disease, physiotherapy.

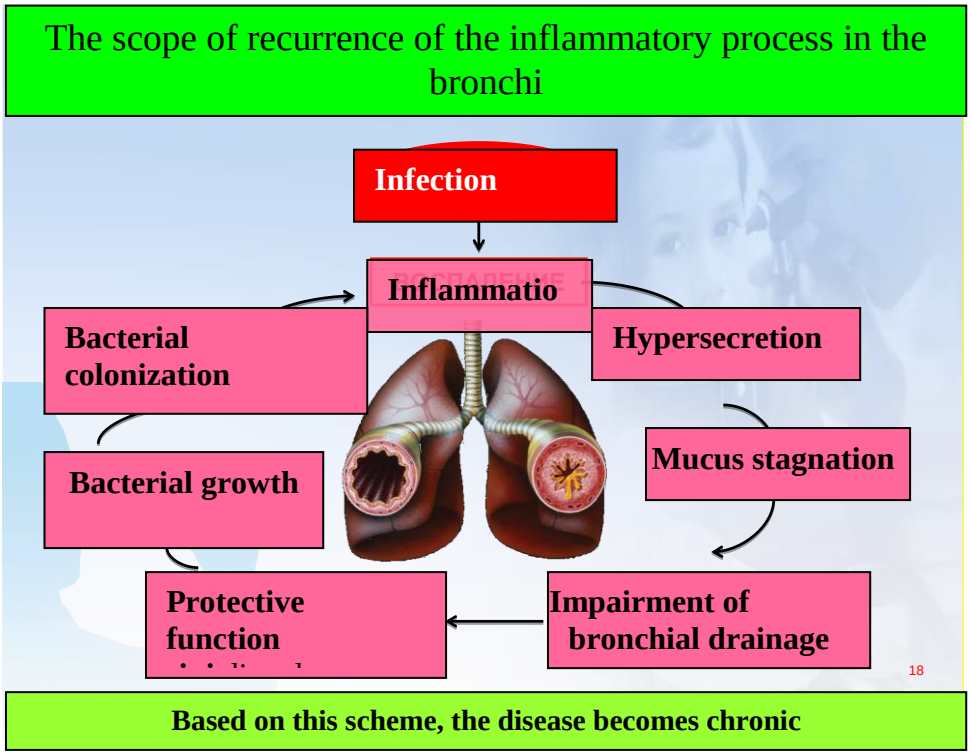
Disease prevention. This requires keeping the environment clean, avoiding severe cold, eliminating harmful habits, not smoking, and not abusing alcohol. Regular physical activity and sports, strengthening the body are important factors in the prevention of acute bronchitis.

Chronic bronchitis

Chronic bronchitis (SB) is a chronic diffuse inflammatory disease of the mucous membrane of the bronchi, accompanied by hypersecretion of mucous fluid in the bronchi and impaired function of its drainage (mucociliary clergy).According to the recommendations of the World Health Organization (WHO), if a patient has a productive cough for at least 3 months in each of the last 2 years, then the condition is recognized as SB. SBThe prevalence of 5% to 17-20%. At present, these diseases are on the rise, due to environmental degradation, pollution of the atmosphere with industrial and various types of fuel products and gases, an increase in the number of smokers.

Etiological factors are divided into 2 groups. Infectious and non-infectious factors. Infectious factors include bacteria, viruses, foci of chronic infection, fungi, and so on. The second group includes acid and alkali fumes, ionizing radiation, systemic diseases, severe renal failure, diabetes mellitus, acute bronchitis due to poor treatment, etc. There are also risk factors. These factors include smoking (chronic bronchitis is 2-5 times more common among smokers), harmful factors in production (cotton, flour, coal, cement dust, ammonia, alkalis, acid fumes), air in the workplace high and cold humidity, air pollution (sulfur oxides, oil, natural gas and semi-combustible products of coal, etc.).

There are also factors that contribute to the onset of the disease. Frequent and recurrent upper respiratory tract infections, influenza, acute bronchitis, pneumonia, chronic rhinitis, tetanus and other foci of infection, hereditary predisposition, immunosuppression of the body, immunodeficiency play a role in the pathogenesis of the disease .



35 a -photo

Pathogenesis. In the long run, the influence of external adverse conditions and etiological factors alters the structure of the bronchial mucosa, the release of biologically active substances from fat cells, increases the permeability of the capillaries of the bronchial mucosa, the release of large amounts of mucous fluid from the bronchial cells changes in its properties, impaired drainage function in the bronchi and a weakening of local immunity, along with the development of infection. This is illustrated schematically in Figure 35 a above.

Pathological changes -due to the presence of hypertrophy in the bronchial glands, we can see redness and swelling in the mucous membrane, infiltration of the submucosal layer with neutrophils and lymphocytes, migration and degeneration of cylindrical epithelium, proliferation of ciliated cells and decrease of ciliary cells (see next topic photo). In the mucous layer of the bronchi develops metaplasia of squamous epithelium and sclerotic changes in the bronchi, as well as deformation and bronchiectasis in the bronchi.

Clinic of the disease. Patients are bothered by coughing, mainly after waking up in the morning or during bathing. In the early days the cough becomes dry, followed by a difficult-to-separate mucous sputum, or with a mixture of pus-mixed mucus or purulent sputum. Rising body temperature, fatigue, decreased ability to work, colds, headaches. The cough intensifies in cold climates, when humidity is high, and

conversely subsides in hot climates. Patients experience rapid fatigue, weakness, decreased ability to work, sweating mainly in the evening. In emphysema and bronchoobstructive syndrome, there is an increase in respiratory rate, expiratory dyspnea, respiratory failure, and even shortness of breath.

Palpator and percussion changes are not characteristic of chronic bronchitis. On auscultation, patients hear hard (rough) breathing and dry wheezing. Wet wheezing (large, medium, small caliber wet wheezing) is often heard during the exhalation phase when sputum is released along with the cough.

X-ray and endoscopic examinations are performed during the instrumental examination. Bronchoscopic examination is effective.

On radiological examination, we do not see changes in most cases. Sometimes in long-lasting chronic bronchitis, when emphysema develops, we can see that the pulmonary nucleus and the picture are intensified and deformed.

Bronchography examination method. Prior to performing the bronchography examination, the upper respiratory tract is anesthetized and a contrast agent, iodolipol, is injected into the bronchi because iodolipol retains X-rays well. An X-ray is taken after the contrast agent has been delivered, in which the bronchial trees are clearly visible, and with this method of examination it is possible to detect bronchiectasis, abscesses, caverns, narrowing of the bronchi, and tumors.

In bronchoscopy we can see the condition of the mucous membrane, ie swelling, redness, mucous sputum, dilation of the bronchi, ie bronchiectasis, and if necessary, a biopsy is taken and histological, cytological examinations are performed, iodine is removed from the bronchial tubes.

Differential diagnosis.X-ray examination of the chest plays an important role in distinguishing chronic bronchitis from focal pneumonia. in chronic bronchitis, a change in the radiograph is observed with dilation of the pulmonary nuclei and an increase in the picture. In acute pneumonia, a shadow appears on the inflamed part of the lung.

In blood analysis- Leukocytosis, increased ECG. In the analysis of the valve - we can see microorganisms, leukocytes, erythrocytes, epithelium. On radiological

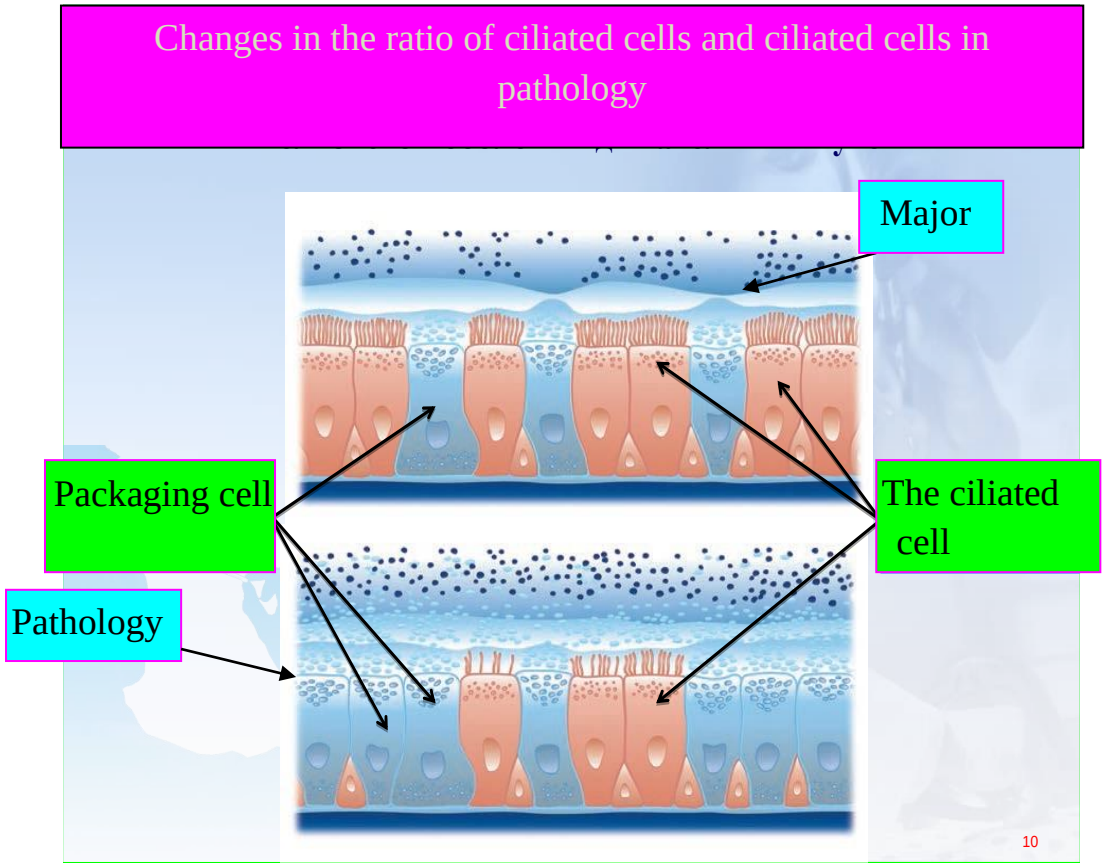
examination, we do not see changes in most cases. Sometimes when emphysema develops, we can see that the lung nuclei and the image are intensified and deformed. Bronchography can detect bronchiectasis. On bronchoscopy we can see the condition of the mucous membrane, ie swelling, redness, mucous sputum, and if necessary, a biopsy is taken and histological, cytological examination is performed.

The course of the disease is long and wavy, with the onset of the disease alternating with remission. Asopathy-pulmonary emphysema, pulmonary embolism, pulmonary heart failure, acute pneumonia, bonhoectasis develop. Patients may also develop bronchial asthma if they develop bronchoobstructive syndrome.

Treatment. Lots of hot boiling drinks (tea with honey, lemon, raspberry jam). Mucolytics (thermopsis decoction and tincture, mucaltine, bromhexine, 2% sodium bicarbonate by inhalation) to facilitate sputum migration. Libexin tablets, codec. Syrups (pertussin, broncholitin, lazolvan, ambroccol, inspiron). Antibiotics-penicillin, ampicillin, (0.5x4r), erythromycin 0.25x4r, bactrim (biseptol), ciprofloxacin 0.5x4r, klabel 500 mg. Antihistamines (suprastin, tavegil, loratal, ketotifen, fencarol, etc.). Calcium gluconate, calcium chloride 10% -5-10.0 v / v. Beta adrenomimetics (oxyprenaline sulfate, astmopent, fenoterol, berotek, salbutamol), papaverine 2% - 2.0-4.0 from antispasmodics to improve bronchial permeability in bronchoobstructive syndromes; eufillin 2.4% -5.0-10.0 v / i,

Disease prevention. Exercise, exercise, smoking, drinking control, rehabilitation of chronic foci of infection (sinusitis, tonsillitis, gingivitis, dental caries, etc.), if the disease is associated with the profession, working conditions, work replacement is recommended.

3Figure 5 b



Evaluation criteria №8

The name of the topic	Ball	Baho	The level of knowledge of the student
Increased airway syndrome in lung tissue. Examination of patients with obstructive pulmonary disease, bronchial asthma, pulmonary emphysema. Lung tissue condensation syndrome. Inflammatory disease of lung tissue (crouposis and focal pneumonia).	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Homework 9, independent work

Practical training №9

Syndrome of accumulation of air and fluid in the pleural cavity (pleurisy, hydrothorax, pneumothorax). Respiratory failure, etiology, pathogenesis, diagnosis and basic treatment principles.

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training
Practical training plan	Air and fluid accumulation syndrome in the pleural cavity. Examination of patients with dry and exudative pleurisy. Hydrothorax, pneumothorax symptomatology. Types of pneumothorax (open, closed, closed). Is there a cavity syndrome in the lungs. Examination of patients with pulmonary abscess, bronchiectasis. Curation of patients. Writing a medical report.
The purpose of practical training:	Students pintroduction to diseases associated with air and fluid accumulation syndrome in the levral cavity. The concept of hollow syndrome in the lungs.
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	19. Controls the cleanliness of the audience 20. Checks students' readiness for classes 21. Controls attendance	
1. Introductory stage of training (10 minutes)	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
2 - the main stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment 5. Summarizes and summarizes the information provided on the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. In what diseases is the syndrome of urinary retention in the pleural cavity
2. The main clinical symptoms of urinary incontinence syndrome in the pleural cavity and what they are based on

3. Characterize pleurisy
4. Types of pleurisy
5. Etiopathogenesis of pleurisy
6. Clinic and diagnosis of dry pleurisy
7. clinic and diagnosis of exudative pleurisy
8. Percussive and auscultatory features of exudative pleurisy
9. Boundaries of garlands and rauhfun-gronno triangles
10. characterize the types of pneumothorax
11. Describe the syndrome of pulmonary cavity formation
12. Describe the pathogenesis of the etiology of bronchiectasis
13. Clinic of bronchiectasis, palpation
14. Percussion, what is the importance of auscultation
15. Describe the diagnosis of bronchiectasis
16. Describe the lung abscess, etiology, clinic
17. What is the importance of objective examination methods in lung abscess
18. What is the importance of radiological examination methods in lung abscess
19. What is bronchial lovage
20. Procedure for writing a medical report in diseases of the respiratory system

Incident method

In clinical departments, the incident method is used to teach students to act in extreme situations. Students are given information about any situational issue. This issue needs to be resolved quickly (0.5-1.5 minutes).

This method speeds up students 'thinking and activates their activities in extreme situations. Student movement error should be 1.0.

PLEVRIT

The purpose of the lesson. The student should know:

1. Identify the causes of the disease.
2. Confirmation of the presence of fluid in the pleural cavity on the basis of physical and instrumental data.
3. Determination of laboratory parameters that confirm the exudate and distinguish it from the transudate.
4. Puncture and determine the composition of the plavra.
5. To know and evaluate the factors that actively influence the diseases that cause the pathological process in treatment.

Subject content

1. Definition. Pleurisy is an inflammation of the pleural effusions in which fibrin-like plaque forms at the pleural surface or exudate accumulates in its cavity. It is usually a secondary disease - a disease of many pathological processes in the lungs or, in rare cases, diseases of other organs and tissues (chest, chest, diaphragm, subdiaphragmatic area) close to the pleural cavity. syndrome or complication. Primary pleurisy is very rare and is the result of injury or pleural mesothelioma. There are dry (fibrinous) and exudative (wet) pleurisy.

2. Distribution. Pleurisy accounts for 3.8–6.5% of all lung diseases, of which 1.2–3.0% are pneumotic and metapneumonic pleurisy.

3. Etiology. Pleurisy is contagious and non-infectious (aseptic).

a. Infectious pleurisy specific (tuberculosis mycobacteria, wound spirochetes) and nonspecific

pathogens (pneumococci, staphylococci, rods, viruses, fungi and
other microbes).

b. Aseptic pleurisy is a closed lesion of the thoracic layer, with blood between the pleural sheets infusion, pulmonary infarction, under the influence of pancreatic enzymes (pancreatitis), pleural effusion
injury with malignant tumor (carcinomatosis), systemic connective tissue
diseases (rheumatism, collagenosis), kidney and liver diseases.

4. Pathogenesis.

(1) Contact path. In infectious pleurisy, the causative agents are directly in the pleura
foci of lung tissue located at the entrance subpleural (zotiljam, abscess, bronchiectasis,
pulmonary tuberculosis).

(2) Lymphatic tract The spread of infection through - a large retrograde flow of tissue fluid
important.

(3) The spread of infection through the blood to the pleura is almost negligible.

(4) In open injury of the chest and in operations, the microorganisms are external
may fall directly from the environment into the pleura.

In the pathogenesis of some types of pleurisy, personally in tuberculosis, under the influence of a pathological process
as a result of sensitization of the organism, a small amount of infect spreads rapidly
causes exudate (infectious - allergic pleurisy).

With tumor metastases of lymph nodes and vessels in the development of blastomatous pleurisy
It is important to follow. Inflammation of the wall of the pleural capillaries constantly damaged
observed with an increase in permeability.

In fibrinous (dry) pleurisy there is a small accumulation of exudate and its satisfactory flow,
as a result, the liquid part of the exudate is completely reabsorbed, leaving only the exudate at the level of the pleural membranes.

In exudative pleurisy inflammatory infiltration of the parietal pleura, its
fibrin-like deposits on the surface and high-pressure intrapleural pleural effusions
sharply disrupts the flow of fluid to the lymphatic system in the chest and exudate
creates a meeting. During healing, the liquid part of the exudate is absorbed,
fibrinous deposits form pleural effusions and scars.

5. Pathological anatomy. In dry pleurisy, the pleura appears thickened, reddened. Fibrin accumulates on the altered surface of the pleura and becomes clumpy, leaving scars as a result of reabsorption. Exudative pleurisy is characterized by accumulation of fluid in the pleural cavity.

6. Classification. Putov's working classification, adopted in 1984, takes into account the etiology, nature (nature) of the pathological process, the presence, location, course of fluid.

(1) Infectious and non-infectious (aseptic) pleurisy are distinguished by etiology. Infections are divided according to the type of causative agent, and aseptic depending on the nature of the disease (traumatic, carcinomatous, rheumatic, etc.).

(2) According to the nature of the inflammatory exudate is divided into fibrin-like (dry), serous, bloody (hemorrhagic), purulent, eosinophilic, hyperactive.

(3) Acute and chronic forms of the disease are distinguished by the course of the disease.

(4) It is diffuse (total) and limited (sac-like) depending on its location.

Pleurisy that develops with zotiljam is called parapneumonia and metapneumonic pleurisy, which occurs during the recovery period of zotiljam.

DRY PLEVRITIS

1. Clinical manifestations. The disease begins suddenly.

a. Complaints.

(1) The main symptom is pain. Anterior and lateral head of the injured side of the chest areas. It usually spreads to the neck and shoulders. Take a deep breath increases when receiving, decreases when pressing the side head to the injured side.

(2) Cough is accompanied by dry or very small sputum secretion.

(3) More meat cramps, fever, malaise, lethargy, loss of appetite annoying.

b. On examination, skin rash, bruising of the lips, shortness of breath acceleration, superficiality, lag behind the respiratory movement of the chest.

v. Palpation reveals muscle pain and tension on the affected side.

g. In percussion, no change is observed in the absence of infiltration in the lung tissue.

d. Auscultation reveals the main symptom of the disease - the friction noise of the pleura. Vesicular respiration is reduced in the area of inflammation.

e. X-ray examination of the diaphragm and the movement of the breath limited.

j. There are usually no changes in the blood test, in rare cases neutrophilic leukocytosis, ECHT increases.

2. Passage. Dry pleurisy is mild in young people and usually ends with healing in 1-3 weeks. Occasionally, relapses can be observed confirming the activity of the tuberculosis process in the lungs. When fluid accumulates in the pleural cavity, dry pleurisy turns into an exudative type.

3. Diagnosis. It is based on the frictional noise of the pleura, which intensifies the pain in the chest when breathing deeply and coughing.

4. Comparative diagnosis. Dry pleurisy is characterized by croupous edema, spontaneous pneumothorax, intercostal neuralgia, neuromyositis, pericarditis, acute diseases of the abdominal cavity (acute cholecystitis, appendicitis). When dry pleurisy is on the left side, it should be distinguished from angina and myocardial infarction. Diagnosis is based on the clinical picture of the disease, ECG and laboratory signs. When dry pleurisy is located in the upper area of the diaphragm, it is necessary to distinguish it from a sub-diaphragmatic abscess or appendicitis. In comparison, the fact that the pain is related to respiration, that body temperature and blood tests are virtually unchanged, and that the friction noise of the pleura is audible confirms dry pleurisy. Inflammation of the pleural space of the chest should be distinguished from pleural friction noise.

The difference from intercostal neuralgia and myositis is that in dry pleurisy, the pain increases due to the elongation of the inflamed pleura when bent to the healthy side. Pain is severe in myositis and neuralgia when palpated between the ribs, and moderate in dry pleurisy.

5. Consequences. Depending on the effectiveness of treatment of the underlying disease, the outcome is mostly positive.

6. Treatment. Since dry pleurisy is a secondary process, treatments should be aimed at eliminating the underlying disease (pulmonary tuberculosis, acute pneumonia, lung abscess, rheumatism, etc.). Remedies are aimed at relieving pain and cough. To do this, analgin or amidopyrine 2g per day, butadione 0.45g, aspirin 2-3g, pyrazolone series drugs (indomethacin 0.025g 3-4 times), glauvent (0.05g 2-3 times), tusuprex (0.01-0, 02g 3-4 times).

Physiotherapy tools-In order to improve blood and lymph circulation in the chest and reduce pain, the skin of the affected side is irradiated with "sollux", Minin lamps, ultraviolet (UV) rays are exposed to a weak solution dose. After a decrease in body temperature, calcium, iodine, novacaine, salicylate electrophoresis is given. In the area of inflammation, EP-UVCH, inductothermy, electromagnetic waves in the decimeter and centimeter range, as well as therapeutic breathing

exercises and chest massage are prescribed to prevent the occurrence of pleural effusions. Sanatorium treatments are carried out in local desert areas with dry climates.

EXSUDATED PLEVRITIS

1. Clinical manifestations. There are 3 stages in the development of exudative pleurisy: fluid accumulation (exudation), stabilization, and fluid absorption (resorption). The disease is often acute, sometimes starting slowly.

a. Complaints. Lateral in the initial period of fluid accumulation in the pleural cavity
irritating pain, dry cough, fever.

As the fluid accumulation increases, the pain and cough decrease and disappear completely during the stabilization of the disease. At this time, the patient feels a feeling of heaviness in the side, increased shortness of breath, in some patients there are expressed symptoms of general intoxication (headache, nausea, vomiting, lethargy, indifference, decreased appetite).

b.Examination The asymmetric fluid in the chest is left behind when the side volume is slightly enlarged in the lower lateral area. The intercostal space is enlarged and flattened.

v. On palpation, the sound vibration is very weakened at the site of fluid accumulation, sometimes not detected at all.

g. Percussion.

(1)A muffled sound is detected on the exudate. It is always placed on the back and under the armpits.

The upper limit of the muffled sound rises upward along the spine. Choking
the upper limit of the sound is formed on the Damuazo saddle line. fluid pleura
collected in the lateral part of the cavity. It is then above and lateral to the pleural fissure
spreads out to form a curved line in the direction.

(2) On the healthy side, due to the displacement of the members of the thoracic cavity along the spine
a muffled sound field - Rauxfus - Grokk triangle is observed.

(3) Between the spine and exudate (Damuazo line) on the injured side
choked tympanic sound in the area of the lungs compressed by exudate (Gorlyand triangle)
determined.

d. Auscultation

(1) Respiratory noise is reduced at the site of exudate, absolutely if there is a lot of fluid
inaudible.

(2) Bronchial breathing is heard instead of a compressed lung above the exudate border.

(3) Breathing noises are not heard in the area of the chest organs that slide on the healthy side.

e. X-rayexaminations (Fig. 7) reveal a large black spot in the lower areas of the lung, the upper border of which is curved and observed with a shift of the thoracic cavity on the Healthy side; a change in the patient's condition changes the shadow configuration. In small volumes (less than 300 ml) of fluid, an X-ray may not detect pathology.

j. Ultratovush(UT) check clearly shows fluid location.

z. In the bloodalmost non-abundant leukocytosis, sometimes eosinophilia, increased ECHT.

i. Special diagnostic procedures.

(1) A needle puncture (puncture) into the pleura is recommended when fluid is detected in the pleural cavity.

(a) The fluid should be removed and the volume measured and a portion sent to a laboratory test.

(b) Laboratory examination: total protein content, lactate dehydrogenase (LDG) activity, cytological and bacteriological examination of the precipitate after centrifugation, determination of glucose and amylase.

(2) Conduct a biopsy examination at the initial stage of pleural puncture.

2. Diagnosis. Patient's complaint (stabbing pain in the side, cough, fever, shortness of breath), physical signs (decreased or disappearance of sound vibrations, muffled percussion sound, inaudible breathing noises), color information (The upper limit is determined on the basis of a black spot with a slope).

3. Comparative diagnosis. Laboratory data can help determine the etiology of pleural fluid.

a. Laboratory tests are important in distinguishing between exudate and transudate.

Laboratory data confirming the exudate are as follows:

(1) The relative density of the pleura is higher than 1018.

(2) Protein content is more than 3g / percent (2 percent).

(3) LDG activity is high.

(4) Revolt test positive.

b. A large amount of blood in the pleural fluid can indicate a tumor, a pulmonary infarction, or a chest injury.

v. When the activity of the enzyme amylase in the fluid is high, it is observed in pancreatic disease.

g. If the number of lymphocytes is excessive - tuberculosis or tumor, the abundance of neutrophils indicates the development of abscesses.

d. If atypical cells are found - indicates the presence of a tumor.

4. Passage depending on the underlying disease is acute, semi-acute chronic.

In infectious-allergic, including tuberculosis pleurisy, the exudate can be absorbed for 2-4 weeks. In some cases, after exudative pleurisy, the development of scars in the pleural cavity, the adhesion of the pleural leaflets to each other, the formation of pleuropneumocytosis, which distorts the shape of the chest and restricts its movement. The most severe course of the disease is observed in purulent pleurisy, which ruptures into neighboring organs and forms a stream. Interstitial sacral pleurisy is usually painless because the parintal sheet is not involved in the process.

5. Treatment. It includes factors that actively influence the diseases that cause this pathological process.

(1) Dietary foods should be rich in vitamins and proteins.

(2) Smoking should be strictly limited.

(3) Infectious - antibacterial (antibiotics, sulfonamides), desensitizing (suprastin, tavegil, thiosulfate - sodium) in allergic pleurisy.

(4) Chemotherapy in pleurisy of cancer etiology.

(5) Anti-tuberculosis drugs are recommended in pleurisy of tuberculosis etiology.

(6) If too much fluid accumulates in the pleural cavity and it moves the organs of the thoracic cavity to the healthy side, causing respiratory and circulatory disorders, as well as if there is no absorption of exudate, the pleura is punctured, removing the exudate discarded, then the cavity was washed with an antiseptic mixture and an antibiotic was sent between the pleura.

(7) Intravenous plasma substitute solutions (reopolyglucin), inhalation of oxygen (oxygen), cardiac glycosides are used in poisoning (intoxication), expressed shortness of breath, cardiac dysfunction.

(8) In order to reduce pain in the chest is used cans, mustard leaves, heating compresses, iodine net.

(9) Physiotherapy - sollux, local heating lamp bath, UVCH, ultrasound, as well as calcium, iodine, pancreatic electrophoresis, inductothermy.

(10) Sanatorium and spa treatments are applied in locally adapted sanatoriums during the warmer months of the year.

6. Forecasts (consequence) depends on the underlying pathological process that caused the disease, as well as the condition of the respiratory and circulatory systems.

7. Prevention - prevention of diseases that cause pleurisy, timely diagnosis and quality treatment.

LUNG ABSESSE AND GANGRENASIS

Pulmonary abscess and gangrene are accompanied by severe purulence, necrosis and erosion of lung tissue, the formation of cavities. Pulmonary abscess differs from pulmonary gangrene in that the purulent lesion is limited. The disease is most common among middle-aged men. Causes of the disease (etiology). In the origin of lung abscesses and gangrene plays an important role the emergence of flora resistant to the effects of antibiotic drugs in the next decade. Most often lung abscesses are streptococci, staphylococci. Friedlander's bacillus develops after a focal infection caused by an association of viruses and bacteria. Pulmonary gangrene, on the other hand, develops due to anaerobic flora: spirals, anaerobic streptococci.

Cold sores, smoking, and alcohol consumption predispose to the development of the disease.

Pathogenesis. The development of purulent process in the lungs, impaired bronchial drainage function, deterioration of blood circulation in the lung tissue and necrosis, decreased body resistance to disease, reinfection, causes lung abscess after acute exacerbation. Often, lung abscesses also result from hematogenous or embolic infection of the lungs in patients with deep vein thrombophlebitis, osteomyelitis, bacterial endocarditis.

The chronic process of acute purulence in the lungs is caused by impaired bronchial drainage activity due to increased pressure in the cavity caused by abscesses in the lungs during the patient's cough.

The developmental pathways of the purulent process in the lungs can be seen in the table below (Table 6).

Classification of lung abscess and gangrene

On the pathogenesis	Clinical and anatomical definition	Passage	Complications
1. Zotiljam next **2.** Through blood circulation and embolism **3.** By aspiration **4.** As a result of injury **5.** As a result of chronic depression	1.Peripheric a) complicated by multiple empyema b) limited empyema c) without complications 2.Central a) alone b) many 3. Gangrene a) empyema b) without empyema	1. Sharp 2. Chronic	1. Bleeding from the lungs 2. Pneumatic thoracic valve (strained) 3. Septicolemia 4. Septicolemia 5. Secondary bronchial ectases 6. Amyloidosis

Pathological anatomy. Purulent foci in the lungs may be solitary or multiple. As a result of an abscess, the cavity in the lung becomes a full pus, which is often accompanied by granulation in the cavity formed in the lung in the abscess and sclerosis of the surrounding lung tissue. In pulmonary gangrene, an unbounded dark green rotten part appears. Examination under a microscope can show leukocyte infiltration and swelling of the alveolar barrier and loss of structure.

Lungsclinical manifestations of acute abscess and gangrene. The course of the disease can be divided into 2 stages: 1. Infiltration. 2. The passage of the purulent foci into the Bronch tract.

1. Infiltration phase. Sudden worsening of the patient's condition during the infiltration stage when the lung abscess develops after suffocation, the body temperature is very high for the second time - 400 C, the patient has an unpleasant odor, gray-green sputum migration (200- 300 ml or 1-1.5

cups), severe sweating, chills, painful cough, chest pain, adynamism, arthralgia, tachycardia are observed. Symptoms of acute respiratory failure and severe intoxication are observed in pulmonary gangrene.

In the infiltration phase, when the chest is percussed, the sound of the lungs is muffled, there is a decrease in the vibration of the voice on palpation, on auscultation, bronchial breathing, dry and small bubbly wet wheezing are heard.

When the blood is examined, the number of leukocytes increases to 15-109 / l as a result of the transfer of neutrophils to metamyelocytes, an increase in ECHT is observed. When the blood is tested in a biochemical laboratory, a2- and ß-globulins, fibrinogen are in excess. A small amount of proteinuria is observed in the urine.

Sudden increase in sputum migration (up to 500-700-1000 ml), approach to body temperature, chest pain, wheezing, decrease in the number of leukocytes in the blood due to rupture of the bronchial tract and bronchial drainage function is restored, indicating that the disease has progressed to stage II.

Depending on the amount of sputum secreted by the patient, it is possible to speculate on the nature and extent of the pathological process, the state of the drainage function of the bronchi.

The sputum is 2 or 3 layers, the 1st layer is foamy, the 2nd layer is yellow pus, and the 3rd layer consists of various fine elements.

In pulmonary gangrene, the sputum secreted by the patient is gray, often containing small pieces of blood and lung tissue.

Treatment. Treatment of purulent diseases of the lungs includes measures to restore the drainage properties of the bronchi and the elimination of the purulent foci in the lungs, exposure to disease-causing microorganisms, combating the symptoms of poisoning, increasing the patient's resistance to disease takes.

The use of factors such as flushing the bronchi with a Carlens tube, therapeutic bronchoscopy, puncture of the chest, placing the patient in a position that facilitates the movement of sputum, aerosol therapy, therapeutic gymnastics should not be used. is lost with li.

In high doses (4-8 million TB per day) it is recommended to take antibiotics: penicillin, ampicillin, claforan, separin, dalatsin, etc., intramuscular, intravenous, tracheal.

Antibiotic treatment is started after the susceptibility of the disease-causing microflora to antibiotics has been determined and is carried out with one or more different antibiotics in high doses.

To combat the symptoms of poisoning, 400ml of glucose, hemodesis is injected intravenously.

If the abscess is caused by staphylococci, then treatment with anti-staphylococcal anatoxin, gamma globulin and anti-staphylococcal plasma will be necessary. To stimulate the patient's body's resistance to the disease are used drugs containing protein: retabolil, perobols. Complications of acute abscess, such as pionevmothorax, pulmonary empyema, and pulmonary hemorrhage, are treated surgically.

In order to prevent the disease, it is necessary to identify acute and chronic diseases in a timely manner, correct and complete treatment.

Evaluation criteria№9

The name of the topic	**Ball**	**Baho**	**The level of knowledge of the student**
Air and fluid accumulation syndrome in the pleural cavity. Examination of	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**

patients with dry and exudative pleurisy. Hydrothorax, pneumothorax symptomatology. Types of pneumothorax (open, closed, closed). Pulmonary cavity syndrome. Examination of patients with pulmonary abscess, bronchiectasis. Curation of patients. Writing a medical report.	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Independent work. Pleurisy

Practical training №10

Cardiovascular system. Control methods. Inquiry. Examination (general condition, skin color, swelling, examination of the neck). Diagnostic value. Examination of the heart area and peripheral vascular area. Palpation and diagnostic value of the heart area.

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training
Practical training plan	Methods of examination of patients with cardiovascular disease. Inquiry, review. Examination of the heart area, peripheral arteries. Palpation of the heart area.
The purpose of practical training:	Students to acquaint patients with cardiovascular disease with the methods of examination. Examination of the heart area, peripheral blood vessels, palpation of the heart area
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	22. Controls the cleanliness of the audience 23. Checks students' readiness for classes 24. Controls attendance	
1. Introductory stage of training	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of	

(10 minutes)	science	
2nd stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment 5. Summarizes and summarizes the information provided on the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. The main complaints of patients with heart disease and what they depend on
2. What information should be considered in the anamnesis morbi and anamnesis vitae
3. What is more important to consider when reviewing patients with heart disease
4. Examination of the shoulder area and vascular occlusion in patients with circulatory system disease
5. Diagnostic significance of skin color in heart disease
6. What changes can be seen by palpating the area of the heart
7. Palpation technique of the heart area
8. Determination of heart tip turkey
9. Explain the "wheezing" symptom
10. In what cases the internal impulse of the heart changes
11. Determining the boundary of the veins
12. pulsation can be detected by palpation

The "pen in the middle of the table" method

The whole group is asked questions (e.g., diabetes symptoms, beta-blocker medications, UIC propensity factors). Each student writes their answer on a piece of paper and sends it to a neighbor, placing the pen in the middle of the table.

The teacher checks the group work and writes the general option in the notebook.

Subject statement

Asking - inquiry. Complaints: Patients with diseases of the cardiovascular system, shortness of breath, pain in the heart area and behind the chest, palpitations, spitting up blood, swelling, pain under the right rib, dyspeptic changes complains.

Hansirash (dyspnoea). It is derived from the Greek word dys - impaired and pnein - breathing, i.e. severe breathing disorder.

Shortness of breath is the most common symptom of heart failure, with varying degrees of differentiation. It is observed that the time of its appearance (constant, aggressive) is associated with physical exertion, appearing at rest. It is observed that the patient assumes a forced position to relieve shortness of breath.

In heart disease, shortness of breath is initially manifested by physical exertion, walking, climbing stairs, and disappears after a while.

Shortness of breath occurs during the decompensation of heart defects. It is especially common in mitral stenosis, atherosclerotic cardio-sclerosis, exudative pleurisy and other heart diseases. In heart disease, an attack of suffocation in the left ventricular septum often occurs at night. These attacks are extremely painful. The patient spends the night without sleep, sits in a chair until morning, the seizure lasts a long time. Such heart attacks are called cardiac asthma (asthma cardiale). It develops during decompensation in heart valve defects, especially in mitral stenosis, aortic defect, myocardial infarction, left ventricular aneurysm, cardiosclerosis, and pronounced hypertension of the greater circulatory system. During valve decompensation,

When interviewing patients who complain of pain in the heart area, it is necessary to clarify the following:

1) under what conditions the pain occurs (during physical exertion, excitement, etc.)

2) the exact location of the pain (apex of the heart, back of the chest)

3) the nature of it (squeezing sharp, feeling the weight, pressing on the back of the chest, etc.)

4) whether they are persistent or aggressive

5) its duration

6) where the pain spreads

7) what falls, or passes.

Determining the above is of great diagnostic value.

An attack of pain in angina is caused by temporary ischemia of the heart muscle, coronary artery spasm and circulatory disorders in it.

In myocardial infarction, the pain is different in nature from angina. Its intensity is high, lasts a long time, can last up to several hours or even days. Pain is caused by physical exertion or excitement, and during an attack, medications that dilate the blood vessels do not help.

Pain in pericarditis is caused by the passage of fibrin in the pericardial sheets, the nature of the pain is constant, the intensity varies. It is not eliminated after validol and nitroglycerin tablets. Pain occurs in both endocarditis and acute myocarditis, but is not as acute as in myocardial infarction. In cardiac neuroses, the pain spreads not to the back of the chest, but to the apex of the heart, constantly disturbing the patient, and is associated with various emotions.

Patients with various diseases of the aorta, including syphilitic mesoaortitis, aortic aneurysm, and hypertension, complain of pain in the posterior thoracic region. In circulatory disorders, heart defects, and other heart diseases, patients experience pain under the right rib as a result of sudden stagnation of blood in the liver and elongation of the Glisson capsule.

The rapid contraction of the heart is felt by the patient as a heartbeat. It can occur in normally healthy people during physical exertion (when running, when climbing stairs quickly, when lifting a heavy load, etc.). Cardiac arrest is observed when the temperature rises, in infectious diseases, in various defects (decompensation of the defect of the heart valves, in acute myocarditis, myocardial infarction, thyrotoxic lesions, etc.). The formation of the heartbeat in the form of an acute attack is characteristic of paroxysmal tachycardias.

Blood spitting (haemoptoae). In mitral regurgitation, especially mitral stenosis, as well as myocardial infarction and other cardiovascular diseases, patients complain of sputum hemorrhage as a result of stagnation in the small circulatory system when accompanied by left ventricular arrhythmias.

Hemorrhage is observed in patients with mitral stenosis, myocardial infarction, thrombophlebitis of the veins of the pelvis or legs, when pulmonary infarction develops as a result of pulmonary embolism or local thrombosis. Bleeding in such cases occurs in the form of bleeding with a small amount of sputum or bleeding from the lungs.

For cardiac asthma, foamy pink sputum secretion is characteristic of suffocation and is associated with stagnation and increased vascular permeability.

Tumors.Patients with heart disease complain of swelling in the legs. Tumors appear in the evening, then multiply. Sometimes the swelling in the foot is permanent. When questioned, it is important to determine if the tumors are related to physical exertion and fluid intake.

General examination of the patient in diseases of the cardiovascular system

External examination of patients with heart disease allows the detection of a number of signs, which are important for the assessment and diagnosis of patients' condition.

The examination begins with an assessment of the patient's condition, followed by a look at the skin lining, the color of the mucous membranes, the tumors, the heart area, and the peripheral blood vessels in the arms and legs.

The patient's condition.Patients with heart disease may have no complaints during the period of compensation at a mild level of blood circulation. In the most acute development of heart failure, patients lie on the bed with their head raised and many pillows under their head, or they are given a special device under their head, occupy a semi-sitting position, and their condition is slightly relieved. Patients are placed on their backs or on the right side, not on the left side in order to get rid of unpleasant sensations in the heart.

In cases of pronounced heart failure, especially in left ventricular failure, which leads to an asthma attack, patients have a characteristic compulsive condition. They sit in a chair or bed, with their feet hanging down and their head on a pillow. Trying to lie in bed causes them to have a choking attack. Sometimes they sit for weeks, do not sleep at night, and wait until the means that improve the activity of the heart and urinary tract are effective.

The decrease in shortness of breath when the patient assumes a forced position is associated with a decrease in stagnation in the small circulatory system due to the movement of blood to the lower part of the body when the legs are lowered, an increase in diaphragm excursion. This condition occurs in heart valve defects, left ventricular aneurysms in cardiosclerosis, and occurs against the background of myocardial infarction or other diseases, accompanied by a decrease in cardiac activity.

In exudative pericarditis, the patient assumes a knee-wrist position or sits in a semi-bent position, occupying a forced position and creating some relief. During an angina attack, the patient prefers to sit. In acute heart failure (shock, collapse), patients lie in a horizontal position. The patient's urge to stand can lead to obmoroc.

***Examination of the skin and mucous membranes*.**When examining patients with heart disease, attention is paid to the color of the skin and mucous membranes, in heart disease, a pronounced whitening or bruising may be observed. The occurrence of hemorrhagic rashes on the skin and mucous membranes is of diagnostic importance.

Cyanosis (cyanosis) - in patients with heart disease there is a sign of cyanotic (bruising) of the skin and mucous membranes in circulatory failure.

The intensity of bruising will vary. It ranges from light cyanotic to dark blue. At the onset of the disease, cyanosis occurs on the lips, tip of the nose, cheeks, fingers in areas where the skin is thin, then it intensifies, the skin of the hands turns blue (acrocyanosis), and even the color of the body turns blue . Cyanosis occurs in mitral regurgitation, mainly in mitral stenosis. In this case, the characteristic blue color of the cheek is called facies mitralis (face of a patient with mitral regurgitation).

A sharply higher rate of cyanosis occurs in congenital heart defects (narrowing of the pulmonary artery, etc. in heart defects). It can also be observed in sclerosis of the pulmonary artery

(Aerza's disease). In this case, the cyanosis increases sharply, the disease is called morbys coeruleus (blue disease).

Cyanosis occurs in pulmonary heart failure, chronic diseases of the lungs (pneumosclerosis, etc.), bronchiectasis and pulmonary encephalitis. Sometimes cyanosis develops suddenly in pulmonary artery embolism, pneumothorax. Cyanosis is characterized by an increase in the amount of hemoglobin returned in the blood, the color of which is darker than that of oxyhemoglobin. In the formation of cyanotic color is observed venous stagnation, dilation of the veins, which is caused by the maturation of the right side of the heart.

In central cyanosis, due to various diseases of the lungs, the normal arterialization process of the blood is disrupted, after which the blood flowing from the lungs is not saturated with oxygen. Other types of cyanosis are observed peripherally due to slowing of blood flow and excessive consumption of oxygen to the surrounding tissues. In such cases, the level of hemoglobin in the blood is higher than normal. Causes of peripheral cyanosis may be circulatory disorders caused by various diseases of the heart. In mixed-type cyanosis, the two causative diseases occur simultaneously. In heart disease, cyanosis is often of a mixed nature.

Cyanosis can also be local. It is observed in thrombophlebitis of the arms and legs and is associated with difficulty in venous flow in these vessels. Local cyanosis can result from compression of the veins due to enlarged lymph nodes or scars. Sometimes local cyanosis is observed in acute pancreatitis with the appearance of separate blue spots on the abdominal wall.

Whitening.When cyanosis (bruising) is observed in mitral regurgitation, whitening of the skin and mucous membranes usually occurs in aortic heart defects. The main manifestations of whitening are observed in aortic stenosis, low blood flow to the vessels during ventricular systole, and their reflex spasm during diastole.

Whitening of the skin is observed as a result of insufficient bleeding of the precapillary during diastole in aortic valve insufficiency.

Significant whitish endocarditis results from anemia due to hemolysis of erythrocytes as a result of severe recurrence and prolonged septic endocarditis. Another cause of skin whitening is collapse.

Yellowing of the skin and mucous membranes is manifested by a slight yellowing (icteric) of the cornea and skin in the period of pronounced decompensation of mitral regurgitation, as well as in other diseases of the heart with right ventricular failure. In such cases, the appearance of mild jaundice is associated with the presence of stagnation in the liver, indicating the development of cirrhotic processes (cardiac cirrhosis of the liver).

In chronic septic endocarditis, a slight yellowing of the skin with yellowing of the skin is observed. This condition is called "caffe au lait". In heart disease, petichial, hemorrhagic rashes along with discoloration of the skin and mucous membranes can be observed on the patient’s skin and cornea (Lukin’s symptom). This symptom is characteristic of chronic septic endocarditis.

Subcutaneous layer. In long-term circulatory disorders, mainly in patients with valve insufficiency, tumors are observed with sudden weight loss. This type of circulatory disorder in this condition is called the cachectic stage of heart failure. In contrast, fatty heart disease leads to circulatory disorders.

Tumors (edema).In patients with heart disease, tumors are a sign of heart failure, most importantly in right ventricular failure, there is an increase in venous pressure, which slows blood flow and increases the transudation of fluid into the tissue due to increased capillary permeability. The main reason for the development of heart tumors is a violation of the interaction of hydrostatic and oncotic pressure in the capillaries. It is known that when the hydrostatic pressure is higher than the oncotic pressure, transudation of the liquid part of the blood to the surrounding tissues and vice

versa occurs. This is seen in the following. Normal hydrostatic pressure in the arterial leg of the capillary is 400 -450 mm water predominates over the oncotic pressure of the plasma, where the pressure is 350 mmequal to the water column. This normally allows fluid in the blood to pass into the tissue. The hydrostatic pressure in the venous leg of the capillary is inversely higher than normal, while the oncotic pressure in the plasma is approximately170 mmis a water column that causes fluid to pass from the tissue back into the bloodstream for transudation. These conditions normally coordinate the transudate-politics of fluid from the blood to the tissue and lead to its re-transfer from the tissue to the blood. In right ventricular failure, mainly in mitral regurgitation, in tricuspid valve insufficiency, in pulmonary heart failure, in atherosclerotic cardiosclerosis and in other diseases of the heart, it is difficult to get blood from the large circulatory veins to the right ventricle, leading to increased hydrostatic pressure in veins and capillaries. As a result, the flow of fluid from the arterial legs of the capillaries to the tissues increases and the flow of fluid from the tissue back to the venous capillaries slows down. This leads to accumulation of fluid in the tissue, the formation of tumors.

Impaired excretory function due to decreased blood flow to the kidneys also contributes to the formation of tumors. Disruption of tissue metabolism leads to the retention of partially oxidized products and sodium chloride in the tissues. As a result, a decrease in blood oncotic pressure occurs in the cachectic stage of heart defects and plays a role in the development of tumors. In patients with heart disease, the appearance of tumors is subject to the laws of hydrostatics, in contrast to kidney tumors are located long and low, initially appear on the heel mainly when walking a lot in the evening, go away in the morning after rest. Later, tumors increase and are observed in the knees, hips, waist, genitals, abdomen (ascites), pleural cavity (hydrothorax), pericardium (hydrothorax). Scattered,

It should be noted that heart tumors can change their position under the influence of gravity - when lying on their backs, they are directed to the humerus area, when lying on their side, they are directed to the lying side. Heart tumors are different from kidney tumors in that the skin lining is bluish in color. With the accumulation of fluid in the subcutaneous layers, parenchymatous tumors appear in the organs, liver, kidneys, gastrointestinal tract.

In some diseases - thrombophlebitis of the arms and legs, constriction of blood vessels with enlarged lymph nodes, local circulatory disorders develop and localized localized edema. In exudative and closed pericarditis, the superior vena cava In compression with a tumor in the neck and neck develops sharply expressed tumors called stocks collar.

The tumor is examined and then palpated using the thumb to determine the area of the heel by pressing on the inner surface of the tibia, buttocks, and other parts of the body. When pressed, a groove is formed, which is then slowly sanded. In the case of tumors, the skin appears shiny, soft at first, hardens in long-term tumors, hardly pressed. In large tumors, blisters sometimes appear, rupture, and fluid leaks out. Acute tumors of the subcutaneous tissue of the abdomen rupture to form a scar, similar to a post-pregnancy scar (striae gra-vidarum).

Determination of diuresis and measurement of the patient on the scales are performed systematically to determine whether the tumor has decreased or increased. Signs of "drumsticks" indicate congenital heart defects and chronic septic endocarditis.

Examination of the heart area and peripheral arteries.

Examination of patients with congenital and acquired heart defects reveals that the chest is bulging over the area of the heart. Such bulging also occurs as a result of accumulation of large amounts of exudate in pericarditis (in exudative pericarditis). 'develops as a result of the secret. In this case, the local swelling of the chest is seen along with its simultaneous pulsation in this area. Kyphoscoliosis of the chest and its deformation create abnormal conditions for blood circulation in

the small blood vessels, leading to the development of kyphoscoliotic heart. In healthy people, when the heart area is moderately developed subcutaneous layer, a clear rhythmic pulsation appears in the anterior wall of the chest in the apex area of the heart, which is called cardiac impulse. The apex of the heart is normally located 1-2 cm inside the left midline of the V intercostal space, sometimes visible.

In thin people, the apex of the heart is most pronounced when the space between the ribs is wide. In obese people, it is not noticeable when the intercostal space is narrow. In making a diagnosis, it is important that the peak stimulus shifts outward. It is found in dilatation of the left ventricle, mainly in aortic defects and hypertension. The outward displacement of the aortic impulse shifts the left ventricle to the left in mitral valve insufficiency, cardiosclerosis, and right ventricular dilatation. The peak impulse also shifts in exudative pleurisy, pneumothorax, and hydrothorax.

When examining the area of the heart, a clearly expressed diffuse pulsation is sometimes seen. It is most often observed when the large surface of the right ventricle lies directly against the chest wall (cardiac impulse) in significant dilation of the heart. Such pulsation in the diffuse heart area is observed in posterior thoracic tumor and in other diseases when the heart moves forward for some reason.

External examination of patients with heart disease focuses on the neck, arms, legs, and peripheral arteries, where symptoms that are important for diagnosis are found. Enlargement of the thyroid gland is detected by examination of the neck, a method that indicates tachycardia, arrhythmias and enlargement of the heart in patients. Examination of the neck area reveals a pronounced pulsation of the carotid artery. This symptom, called “carotid game,” is a sign of aortic valve insufficiency, which indicates a sharp fluctuation between maximum and minimum blood pressure. This symptom sometimes occurs in tachycardia and hypertension, which are sharply expressed in Bazedov's disease.

A characteristic phenomenon in aortic valve insufficiency is a sign of shaking of the head (Myusse's symptom), which occurs as a result of a sharp pulsation of the carotid artery and a sharp decrease in maximum and minimum pressure.

The symptom of "carotid game" in valve insufficiency is usually accompanied by pulsation of peripheral vessels (art. Subclavia, brachialis, radialis, etc.). Such a sharp pulsation of all the vessels is called Homopulsan. Pulsation and swelling of the carotid veins in the neck occur as a result of difficulty in venous blood flow to the right compartment.

In normally healthy people, swelling of the veins may appear in the supine position, but this is completely eliminated in the vertical (upright) position. If venous edema is observed in such a situation, it is possible to suspect right ventricular failure, mainly exudative pleurisy, pulmonary emphysema, pneumothorax, etc. develops as a result of diseases. Swelling in the neck and arms (Stokes collar) simultaneously with sudden dilation of the jugular and arm veins occurs due to compression of the superior vena cava by a tumor or aortic aneurysm, or due to superior vena cava thrombosis.

Dilation of the veins in the lower part of the chest and in the anterior wall of the abdomen occurs as a result of compression of the deep veins as a result of tumors of the thoracic cavity. The presence of pulsation of the carotid veins accompanied by ventricular systole (called a positive venous pulse) is a characteristic sign of tricuspid valve insufficiency. In such cases, when the vein is pressed with a finger, a pulsation is detected below it. Incomplete right atrioventricular orifice occurs as a result of retrograde movement of blood during ventricular systole. Dilation and pulsation of the intercostal artery on examination of the thorax occurs as a result of narrowing of the aortic neck (stenosis ustus aortae).

The presence of pulsation in the epigastric area occurs due to pulsation of the dilated and hypertrophied right ventricle or abdominal aorta. Dilation of the veins of the arm occurs in healthy people, it goes away when the arm is raised, it is difficult to get venous blood to the right compartment (in right ventricular failure) such loosening of the vein is not observed.

This indicates an increase in venous pressure within the greater circulation. Sometimes varicose veins in the legs are most often detected in women who have given birth many times. Thrombophlebitis is often accompanied by local swelling and sometimes pigmentation and trophic ulceration.

Examination of the hands and feet reveals changes in the fingers in the form of "drumsticks" in heart disease. This sign is well defined on the toes, but it can also be detected on the toes. It occurs in congenital heart defects, as well as in septic endocarditis, pulmonary heart failure (if its causes are bronchiectasis or purulent lung disease).

Physical evaluation of the heart

In the clinical setting, the patient should be turned on his left side when he has difficulty hearing when lying on his back, and slightly bent forward while sitting. In both cases, the heart sounds better because the heart is closer to the chest wall. When heart tones are difficult to hear, they are called "distant" tones, and light heart tones are called "clear" tones. Heart tones are often difficult to hear in patients who are obese or have chest encephalitis. First, heart rate, rhythm, and heart rate are assessed. In most medical facilities, the apical pulse is detected before taking the drug in patients receiving all cardiac glycosides, which is important in accurately determining the number of heart contractions when analyzing the response to the drug.

It is necessary to determine the rhythm disturbances of the desired heartbeat (M: every 3 - heartbeats in the regular time interval).

The desired irregular heart rhythm disorder (m: missed or sometimes missed or premature heartbeat) is also assessed. Heart contractions are marked. The nurse should be able to distinguish between I and II tones (S1, S2). Doing this is important in a normal and slow heart rhythm. Heart tones are formed when the heart valves close. Systole is formed between I and II tones, diastole between II and I tones. I tone 5 is heard in the intercostal space inside the midline (at the apex of the heart), tone II 2 is heard in the intercostal space to the right of the chest (at the base of the heart). At the apex of the heart, the tones are clearly heard using the head of the stethoscope, and at the base of the heart, the tones are clearly heard using the diaphragm of the phonendoscope. Both options should be followed, as the tones should be heard well in certain cases.

Treatment of physical evaluation of the heart.

1. Physical evaluation of the heart is important in the detection of cardiac pathology in cases of frequent or irregular pulse.
2. A stethoscope is prepared for evaluation. Hygienic rules must be followed because the parts of the ear to be heard are wiped with alcohol.
3. The patient is explained, told what to do, and asked not to speak during the treatment. During the inspection, the TV is turned off, the door is closed, which ensures peace.
4. The patient is asked to sit (if possible).
5. The patient is asked to remove surface clothing or pajamas.
6. Cardiac auscultation is performed. Heart tones follow a precise system of hearing. The most common sequence of auscultation of the heart is as follows:

The diaphragm of the stethoscope is heated manually. The diaphragm II is placed in the intercostal space on the right side of the chest (projection of the aortic valve), then the diaphragm is moved into the intercostal space II or III on the left side of the chest (pulmonary artery valve projection). Then V is placed on the left side of the chest in the intercostal space (projection of the 3-layer valve), then in the V-intercostal space is inserted from the left midline (mitral valve area) .

Heart I and II tones (S1, S2) are normally heard in children and adults. The I tone is part of the sounds that come together in the mitral valve area, like the lab sound, and is heard on auscultation of the heart. The second tone "dap" is heard in the area of the aortic valve. Tones III and IV (S3 and S4) are pathological in adults,

Heart palpation technique (palpatio)

Palpation of the apex area and heart rate. To determine the apex impulse, the examiner should position the palm of his right hand in such a way as to obtain information about the activity of the left ventricle so that the fingers cover the area above the apex impulse.

It is then necessary to form a general idea of the motive of the peak and to study its properties in depth.

Palpation should determine the exact localization, width, area, strength, and size of the apex impulse. To do this, when determining the apex impulse, the middle finger is placed in the area of the apex impulse, its exact localization is determined. Normally it is located 1 - 2 cm inside the midline of the V-rib range. When lying on the left side, the apex stroke moves 2 cm to the left, and when lying on the right side, it does not move significantly. The displacement of the apex pulse is due to factors not related to the heart (the height of the diaphragm, changes in chest pressure, the process of contraction of the lungs).

Elevation of the diaphragm occurs in an increase in abdominal pressure (ascites, flatulence, obesity, pregnancy, etc.), in which the heart assumes a horizontal position, the heartbeat moves up and out (left). The downward position of the diaphragm (decreased abdominal pressure, pulmonary emphysema, asthenic-type body structure, etc.) causes the heart to position vertically and the aortic impulse to move down and inward (to the right).

Increased pressure in the pleural cavities (exudative pleurisy, unilateral hydrothorax, hematoraks, pneumothorax) pushes the heart in the opposite direction, resulting in the peak impulse.

When the connective tissue in the lungs does not grow and shrink, obstructive atelectasis develops (bronchogenic lung cancer, foreign body) and the apex moves to the affected side.

In heart disease, in left ventricular dilatation and hypertrophy (in aortic valve defects, mitral valve defects, atherosclerotic cardiosclerosis, increased pressure in the large circulatory system, etc.), the impulse moves to the left, and in aortic valve insufficiency, the impulse moves to the left and down.

In congenital anomalies - in the reverse positioning of the internal organs (situs viscerum inversis), the heart is located more to the right of the chest, and the apex impulse shifts in the same direction.

It should be noted that in pronounced exudative pericarditis, the apex impulse is often not palpable or does not correspond to the left relative border of the heart and is palpated inside it. The peak stimulus is not palpable when a large amount of fluid accumulates in the left pleural cavity (in exudative pleurisy, left hydrothorax, hemothorax). Normally, the width (area) of the peak impulse is 2 cm square. If the width of the field is small, the impulse is limited, if large - it is called scattered. In the presence of limited impulse, the heart lies on the chest wall with a smaller surface than normal. In pathological cases, this is most often seen in pulmonary emphysema, when the lungs cover most of the heart and push it away from the chest wall. The diffuse impulse is the opposite, when the heart lies on the chest wall with a large surface,

The magnitude and height of the apex impulse is characterized by the amplitude of vibration in the area of the apex skin. High and low peak strokes are different. As a rule, when a large level of the heart touches the chest wall (the reasons are given above) as well as in rapid heart contractions, the peak impulse is located above, if the heart is shifted backwards, as well as other conditions (fat pressing, well-developed muscles). when done) the height of the peak impulse decreases. It follows

that diffuse and high peak impulses are indicative of cardiac enlargement (denial of non-cardiac causes). As a result of a strong heartbeat, the heart area swells, an increase in apex impulse is usually associated with left ventricular hypertrophy and an increase in the force of its contraction.

In aortic valve insufficiency, left ventricular hypertrophy and a strong "elevated" "dome-shaped" apex are detected.

When the pericardium is attached to the anterior wall of the thorax, it appears to be pulled inward without lifting the chest wall during ventricular systole. This appearance of the peak stimulus is called a negative peak stimulus.

In addition to the aortic impulse, attention should be paid to the cardiac impulse, which determines the activity of the right ventricle of the heart. In healthy people, it is not noticeable. In right ventricular hypertrophy and dilatation, the pulsation, which is clearly expressed in the area of the absolute blunt boundary of the heart, can be seen or felt with the naked eye.

Identify the symptoms of "cat wheezing". Palpation of the sympathetic cataire is of great diagnostic value. This symptom was prescribed by French clinicians. It is based on the fact that the naming is based on a sensation similar to the sensation that occurs when a cat barks. This symptom can be felt during low systole, low diastole, when the heart produces low sounds (around 16 vibrations per second). To detect it, the hand is placed on the forearm of the heart gamma hearing points. This symposium is called "presystolic cat wheezing" if it is detected at the end of diastole at the apex of the heart, it is typical for mitral stenosis, if during systole over the aorta - aortic orifice stenosis, pulmonary if over the artery - pulmonary artery stenosis or obstruction of the Botallov tract.

Evaluation criteria№10

The name of the topic	**Ball**	**Baho**	**The level of knowledge of the student**
Air and fluid accumulation syndrome in the pleural cavity. Examination of patients with dry and exudative pleurisy. Hydrothorax, pneumothorax symptomatology. Types of pneumothorax (open, closed, closed). Pulmonary cavity syndrome. Examination of patients with pulmonary abscess, bronchiectasis. Curation of patients. Writing a medical report.	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Homework 11, independent work

Practical training №11

Cardiac percussion. Determining the relative stiffness limit of the heart in a healthy person and pathology. Determining the threshold of absolute heart failure in cardiovascular pathology in a healthy person. Cardiac configuration, X-ray analysis. Diagnostic value. X-ray analysis.

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training
Practical training plan	Cardiac percussion. Determining the relative stiffness of the heart in a healthy person and pathology. Determining the limit of absolute heart failure in a healthy person and in pathology of the respiratory organs, heart, blood vessels. Cardiac configuration, X-ray analysis. Diagnostic value.
The purpose of practical training:	Determining the limits of relative and absolute heart failure in a healthy person and in pathology of the respiratory organs, heart, vascular
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	25. Controls the cleanliness of the audience 26. Checks students' readiness for classes 27. Controls attendance	
1. Introductory stage of training (10 minutes)	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
2 - the main stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment 5. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. Describe the technique of cardiac percussion
2. Explain the definition of relative blunt boundaries
3. Absolut blunt boundary detection technique
4. In which cases the heart border shifts to the left
5. In which cases the heart rate shifts to the right

6. In which pathology the heart border moves up and to the left
7. Which pathology of Socha BOVIN is observed in cases
8. Determine the configuration of the heart
9. The diagnostic value of determining the configuration of the heart and changes in pathology
10. Identify the stem of the vein
11. The diagnostic value of vascular bundle detection
12. What is analyzed on a heart x-ray
13. Signs of left ventricular hypertrophy on the radiograph
14. Radiographic signs of mitral and aortic configuration

"Snowflake" method

Two groups of students discuss a problem or situational problem in order to find a more accurate answer. For example, the differential diagnosis of diseases associated with symptoms of acute cholecystitis, or abdominal pain syndrome. Each correct answer is evaluated by one point and one piece of snow is given to this group. The team members who collect the most snowflakes are rated with excellent grades.

Subject statement

Cardiac percussion

The percussion method determines the absolute (absolute) and relative blunt limits of the heart. Because the heart is an airless organ made up of muscle and blood, it makes a muffled sound when you tap it. But since it is partially covered by the lungs, the muffled sound is relative and absolute. The relative constriction limit of the heart corresponds to its actual, that is, the boundaries covered by the lungs, and the limit of absolute suffocation corresponds to the width of the surface not covered by the lungs. This is where the anterior wall of the right ventricle is located. In patients, percussion can be performed while standing, sitting, and lying down. The average percussion tattoo is used to determine the relative stagnation of the heart, and the weak percussion is used to determine the absolute stagnation. The finger plethysmometer should be in close contact with the body and placed between the ribs parallel to the defined boundary line. Percussion is conducted from a clear percussion lung sound to a muffled sound, and the boundary finger is marked by the outside of the plethysmometer. The limits of relative obstruction of the heart are determined in a certain sequence, first from the right, then from the upper and left sides. To determine the relative obstruction limit of the heart on the right side, percussion is first performed from the top to the bottom along the midline to the upper obstruction limit of the liver. The finger plessimeter is then lifted one rib interval upwards and percussed from right to left perpendicular to the direction of the ribs and parallel to the edge of the sternum. In a healthy person, the right relative threshold of the heart is 1 cm outside the right edge of the sternum. Percussion is performed from top to bottom along the left frontal line of the upper chest. It is located between the 3rd rib in a healthy person. To determine the left relative stiffness limit of the heart, the apex of the apex is first determined by palpation, then from the anterior axillary line to the apex of the apex along the intercostal space. percussion to a muffled sound. Normally, the left ventricular border of the heart is located 1-1.5 cm inside the left midline. The distance from the midline of the body to the left and right relative obstruction boundaries of the heart is then measured. It is 8-9 cm from the left, 3-4 cm from the right, a total of 11-13 cm, and this total distance is called the transverse dimension of the heart. To determine the limits of the absolute suffocation of the heart, a low weak percussion is performed from the percussion sound, which is choked inwards from its relative suffocation limit, until an absolute suffocating sound occurs. In a healthy person, the absolute constriction limit of the right heart is in the area of the left side of the sternum, along the anterior line of the sternum in the 4th intercostal space, and the relative relative stiffness of the left 1-1.5 cm inside the border. The change in the limits of congestion of the heart also depends on the condition of the lungs, in emphysema the absolute limit of congestion decreases, and in convulsions this constraint limit expands. The limits of heart failure also depend on the size of the heart. The change in the relative stiffness limits of the heart depends on various factors. Its shrinkage

is observed in asthenics due to the vertical position of the heart when the internal organs are lowered, in contrast, the enlargement of these boundaries occurs in hypertensives due to the high position of the diaphragm when large amounts of air and fluid accumulate in the abdomen. In this case, the heart is much more horizontal. In the above cases, the boundaries of the heart are related to the change in its condition, not to itself. In heart disease, hypertrophy of its muscles and dilatation of some parts of the body also lead to changes in its boundaries on one side or the other. Often the enlargement of the borders is detected on the right, left, top, and back, because the resistance of the thorax in front and the diaphragm below prevent the unilateral expansion of the heart. An enlargement of the relative obstruction boundaries of the heart to the right occurs as a result of enlargement of the right ventricle and right ventricle. This condition is observed in mitral stenosis in tricuspid valve insufficiency and narrowing of the orifice of the pulmonary artery. In mitral stenosis, the boundaries of the heart enlarge not only to the right but also upwards. An increase in the relative obstruction threshold of the heart only to the left is often noted in hypertension, when the left ventricle is severely hypertrophied. Enlargement to the left and down to the 6-7 rib range occurs in aortic pleura, left and upward enlargement occurs in mitral valve insufficiency. An increase in the upper limit of relative congestion of the heart is observed in the narrowing of the mitral orifice. When heart disease persists for a long time, especially when the joint defects are strongly decompensated, the relative occlusion limit of the heart expands in all directions. Such a heart is called a "bull's heart" (cor bovinum). The limit of absolute suffocation of the heart is the part of it that is not covered by the lungs and touches the anterior wall of the chest. The absolute suffocation here occurs at the expense of the right ventricle. The limit of absolute suffocation can also change in pathological cases. Its enlargement can be observed when the diaphragm is too high, the edges of the lung tissue are twisted, in large tumors of the posterior thoracic cavity, exudative pleurisy and pericarditis. Conversely, narrowing of the absolute choke boundary may be noted in cases where the diaphragm is too low, in pulmonary emphysema, in pneumosclerosis, when air collects around the heart or under the skin. In addition, the expansion of the heart itself also leads to the expansion of the boundaries of absolute suffocation. This is the case, for example, in paroxysms with right ventricular hypertrophy.

A bunch of veins the superior poplar vein and aortic arch on the right form the pulmonary artery on the left. In some diseases, aortic aneurysms, pulmonary artery dilatation, thoracic interstitial tumors, and in others(See Figures 49 a and b).

To detect it, percussion is performed in the 2nd rib space on the left and right side from the area of the midline to the suffocating sound from the outside to the inside, and the finger is marked on the outside of the plethysmometer. In a healthy person, the width of this tumor is 5-6 cm.


a) 49 photos b)

a) identification of the right vascular bundle;
b) detection of a vascular bundle on the left side;

Determining the configuration of the heart

Determining the configuration or shape of the heart is of great importance for diagnosis. In heart defects, the shape of the heart changes significantly. For example, in mitral valve insufficiency and stenosis, as the right ventricle and left ventricles of the heart dilate, the left ventricle becomes

flattened, the borderline arc disappears, and sometimes reverses. This form is called "mitral configuration". In aortic valve defects, because only the left ventricle of the heart is dilated in hypertension, the lower parts of the left border of the heart dilate and the border arch is more pronounced. This shape is called the "aortic configuration" of the heart.

MSKT angiography.MSKT angiography is a method of rapid, complete, and accurate vascular examination. MSKT angiographySIEMENS "(Germany), model SOMATOM PERSPECTIVEis performed on a multispiral computed tomography developed by the firm and sees in 64 sections. When examining the veins, a contrast agent is injected into the veins, and this substance is scanned as it passes through the veins to obtain accurate data. This screening method is noninvasive and is highly informative and effective in detecting vascular wall condition as well as atherosclerotic plaques, vascular thrombi, degree of vascular narrowing, vascular occlusion, vascular anomaly, and postoperative conditions.

MSKT angiography is a painless non-invasive examination method and its advantages;

The scanning speed is high, reducing the radiation dose by reducing the scan time;

It produces high-quality images by making small-thickness incisions from intermediate and deep wounds;

Ability to scan the entire aorta, leg, head and neck veins lengthwise;

Possibility to examine patients despite their serious condition; Ability to capture high quality three-dimensional images from the control area

Instructions for MSKT angiography;

Coronary artery disease;

Tumors of the heart and thoracic cavity;

Myocarditis, pericarditis, cardiomyopathy;

Before and after transplantation and endoprostheses for heart disease (shunting, stenting of arteries and veins), prosthesis of valves, etc.

Congenital defects of the heart and blood vessels;

Lack of covers;

Diseases of the thoracic vessels (diseases of the pulmonary arteries and aorta and their aneurysms);

Determining whether the tumors are vascular and where the tumors are supplied with blood;

MSKT guidelines against angiography;

Inability to tolerate iodine drugs and other contrast agents;

Due to the fact that the method of examination is associated with X-rays - pregnancy;

Severe renal and heart failure;

Preparation for MSKT angiography;

It is not possible to drink bitter tea, coffee, or eat on the day of the examination without special preparation;

MSKT angiography (51 photos) the order of inspection;

It is performed in an outpatient setting and before the transition a catheter is inserted into a vein and contrast is sent from it. The amount and rate of contrast agent is obtained depending on the area of examination, age and the constitutional nature of the patient. The patient is placed on a table and moved in the apparatus in a horizontal direction. Communicating with the patient during the examination is sometimes ordered, as well as holding the breath.

X-ray examination of the heart and blood vessels.

The main method of X-ray examination of the heart and large vessels is radioscopy, which allows to determine both morphological and functional status. Because it is more dense than the organs around the heart (lungs), it can be examined radiologically. The work of the whole heart and each compartment is studied using radiochemistry.

51 surat

X-ray chemistry - such a method of X-ray recording of the movements of different organs, in which the contours of the limb (shape) are reflected in the radiograph, but the size of these teeth reflects the amplitude of movement, light the result is achieved due to the fact that the film cassette is slid relative to each other with the grille placed across the handle.

An important condition of radiochemistry is to create a large shadow contrast between the object under examination and the areas adjacent to it. The shadows of the heart and large vessels are highly contrasting and stand out sharply against the background of the lung areas that stand out as bright. On radioscopy, the shadow of the heart vessels is in the form of an irregular egg on the screen, occupying a middle position. This shadow is curved over the diaphragm, with 3 parts of it lying on the left half of the chest and 3 parts lying on the right half. The heart and blood vessels are examined radiologically in the anterior-posterior position, in the first curvature (the body is rotated 45 ° to the right) and in the second curve (the body is rotated 45 ° to the left).

The right contour obtained on anterior-posterior radioscopy is an irregular arc with two orders. The upper arch occupies the distance from rib I to rib II, and the upper arch is formed by the shadow of the superior ascending part of the aorta with the venous shadow, the lower or right ventricle, sometimes, the heart in an upright position while standing again it is formed by the shadow of the right ventricle of the heart and the shadow of the inferior vena cava.

The left contour of the heart consists of 4 arcs: the upper arc, which is located between the first ribs (which corresponds to the aortic arch), the 2nd, which corresponds to the left atrium with the pulmonary artery, and The 3rd arc consists of the 4th arc, which corresponds to the left ventricle of the heart. The enlargement of the 2nd and 3rd arches on the left side due to the enlargement of the left ventricle forms a mitral heart shape (configuration) in which the lumbar spine is unknown, which is very characteristic of mitral regurgitation.

In aortic valve insufficiency, the left 1st and 4th arches are enlarged while the angle between the vascular bundle and the heart is maintained. The shadow of the heart widens to the left and down, acquiring an aortic configuration comparable to the shadow of a sitting duck.

Radioscopy also allows the shape of the apex of the heart to be determined. In left ventricular hypertrophy, the apex of the heart is rounded. The patient is in an asthenic constitution, the heart is in an upright position when the diaphragm is low, the heart shadow is not large, and the eye is seen to be smaller. When the diaphragm is high (when the abdomen is at rest, in obesity, pregnancy, etc.), the heart assumes a transverse position, in which it can be seen that it is much closer to the diaphragm. The droplet-shaped heart can also be detected radiographically, giving the

appearance of hanging on a handle of blood vessels and touching the diaphragm with a small part of it. Such patients often have asthenic constitution.

On radiological examination, it can be determined that the heart is not displaced. Left-sided exudative pleurisy, in pneumothorax, the heart is absorbed into the right half of the thoracic cavity.

At the apex of the exudate floating to the pericardium (heart sac), the shadow of the heart enters a triangular shape. X-ray examination also reveals aortic changes; In aortic sclerosis, the shadow is enlarged and much more "dark". In the aortic aneurysm, the ascending arch is a flat or partially dilated portion in the descending part or at the aortic arch (arch). Aneurysmal enlargements differ from tumors in that the tumor has no pulsation (beating of the aortic wall) or is diminished.

When X-rays are taken from both sides, a bright area is visible in front of and behind the heart shadow. In case 1, the bright area between the shadow of the heart and blood vessels on one side and the shadow of the spine on the other is called the retrocardial space. The bright area in front of the heart is called the thoracic posterior cavity (retrosternal cavity). In case 1, the changes in the left ventricle become more pronounced, and its enlargement leads to a narrowing of the retrocardial space. In case 2, changes in the aortic arch, as well as enlargement of the right and left ventricles, appear to be true.

How quickly and correctly the disease is treated depends on the correct and rapid conduct of laboratory and instrumental examinations. The role of the medical student in conducting these examinations is important.

Evaluation criteria №11

The name of the topic	**Ball**	**Baho**	**The level of knowledge of the student**
Cardiac percussion. Determining the limit of relative and absolute suffocation in a healthy person and in pathology. Cardiac configuration and its definition in pathology. Diagnostic value. X-ray analysis.	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Homework 12, independent work

Practical training №12

Cardiac auscultation rules and hearing points. Heart tones. Changes in tone (increase and decrease) in cardiovascular pathology. Doubling and splitting of tones. Diagnostic value. Additional tones in cardiovascular pathology.

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training
Practical training plan	Cardiac auscultation: characteristics of heart sounds in a healthy person. Hearing points of heart tones. The main properties of

	sounds: timbre, power. Increase and decrease of basic sounds. Changes in sounds in cardiovascular disease: the rhythm of the horse's hooves, the rhythm of quail singing, pendulum rhythm, embryocardia. Tachycardia, bradycardia, arrhythmia.
The purpose of practical training:	Study of the characteristics of heart sounds in a healthy person. Hearing points of heart tones, increase and decrease of basic sounds, changes in sounds in cardiovascular disease: the rhythm of the horse's drum, quail's rhythm, pendulum rhythm, embryocardia, tachycardia, bradycardia, arrhythmia to give an understanding of terms such as.
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	28. Controls the cleanliness of the audience 29. Checks students' readiness for classes 30. Controls attendance	
1. Introductory stage of training (10 minutes)	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
2 - the main stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment 5. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. Rules of cardiac auscultation
2. Indicate the hearing points of the heart
3. 1 ton formation mechanism
4. 2 tone formation mechanism

5. The difference between 1 ton and 2 tons
6. 3 and 3 tone formation mechanism
7. In what cases a decrease of 1 ton is observed
8. In which pathology 1 ton increases
9. In what cases a decrease of 2 tons is observed
10. In which pathology 2 tones increase
11. what
12. When hesitation of 1 and 2 tones is observed
13. Mechanism of formation of extracardiac pistons, diagnostic significance
14. Formation of the rhythm of "horse drum"
15. Formation of "quail rhythm"
16. The concept of embryocardia
17. Tachycardia and its types
18. What is bradycardia, in what cases it is observed
19. What is the mechanism of extrasystole
20. paroxysmal tachycardia, types, mechanism of formation

A way to find a solution to a problem

The group is assigned a problematic situation. For example, abdominal pain syndrome, treatment tactics, or differential diagnosis. Each student writes down their answer (5 min), and discusses it with their partner. It is then analyzed by the whole group. At the end, the general option is recorded in a notebook.

Cardiac auscultation (auscultation).

Cardiac auscultation allows us to form an idea of the symptoms of complex sounds that occur during the activity of the heart.

The following rules should be followed when listening to the heart.

To the patient's condition. The student should have the ability to hear patients with diseases of the cardiovascular system in different situations - vertical, horizontal and horizontal, lying on the left side. To do this, it is necessary to know in what condition of the patient, in what cases the sounds formed in the defects of various heart valves are performed. M: Proto-diastolic noise generated in aortic valve defect is best heard when the patient is in a vertical position, systolic noise is best heard when lying in a mitral valve defect. In mitral stenosis, the noise is best heard when the patient is lying on his left side.

The situation of the student. The student approaches the patient from the right side during auscultation of the heart. In doing so, the student should be in a position to place the stethoscope correctly and freely at the ear hearing points of the heart.

Hearing the heart using a stethoscope and direct ear. Usually the heart can be heard using a stethoscope or phonendoscope, because the noises at different points of the heart are heard separately. Nevertheless, VPObraztsov and MVYanovsky focused on listening directly to the noises generated in the heart. VPObraztsov said that when auscultating the heart directly with the ear, healthy people hear not 2 but 3 tones, which was later confirmed by phonocardiography.

The gallop rhythm, which occurs in severe heart damage, is best heard when auscultated directly using the ear, according to VPObraztsov.

Therefore, direct and indirect auscultation is important in hearing the heart.

Hearing the heart in different phases of the act of breathing. The heart is heard with the cessation of breathing, this is done to eliminate the sounds in the lungs, so as not to make it difficult to evaluate the auscultation data in the heart. To do this, the patient is asked to breathe in and then

exhale, after which breathing is stopped. The heart is heard when breathing is stopped. Because the cessation of breathing does not last long, the procedure is repeated.

The actual projection of the heart's auditory areas and heart valves on the chest. The projection of the mitral valve is on the left side of the rib III, the projection of the aortic valve is on the left side of the rib, the projection of the aortic valve is on the left side of the rib, the projection of the aortic valve is on the left side of the rib, 3 the stratified valve is located at the junction of the left rib cage III and the right rib V in the midline behind the sternum. Naturally, the close proximity of the holes in the lids makes it difficult to separate the sounds that are generated there. Therefore, based on long-term clinical observations, the location of the points where the individual sounds of the valves can be heard well is the heart rate stimulus,

SPBotkin suggested an additional point of hearing the additional sounds generated in the aorta, which correspond to the junction of the III-IV ribs to the outer left edge. This 5-hearing point is called the SPBotkin point.

Based on the above, the actual projection of the heart valve I is slightly perpendicular to the mitral valve hearing area.

The sounds that occur in it are concentrated in the apex of the heart, the mitral valve, which is formed during systole by touching the chest wall, ensures that these sounds are well transmitted. The fact that the sounds produced in the aortic valves are heard in the II intercostal space on the right side of the sternum, slightly beyond the actual projection, is due to the good conduction of sounds by the bloodstream.

The order of hearing the heart. Cardiac auscultation is performed in the following order. First the apex of the heart, the site of transmission of mitral valve sounds (first point), then the right side of the chest in the aortic valve II rib space (second point), the pulmonary artery valve II rib space On the left (third point), a three-layer valve is placed at the outer lower point (fourth) and at the end of the stethoscope or phonendoscope Botkin point (fifth point) is placed in the place of additional audibility of sounds in the aortic valves.

Acquired heart defects often damage the mitral and aortic valves.

*Hearing of the heart after physical exertion.*In unexplained cases, if the patient's condition worsens, the heart is heard after a light physical exertion, for example, the patient is asked to perform an exercise while sitting several times. This allows the detection of sounds in the heart (e.g., presystolic noise in mitral stenosis) that can be clearly heard due to increased heart contraction and accelerated blood flow.

Auscultatory information heard in the heart in healthy people. Normally in healthy people 2 are heard at 5 hearing points: I, called systolic, which is formed during ventricular systole, and II, diastolic tone, which is formed during the phase of ventricular diastole. A small pause after tone I corresponds to the period of expulsion of blood from the ventricles (duration equal to Q2c). During auscultation of the heart, we cannot hear the flow of blood from the ventricles to the aorta and pulmonary arteries, because the holes in the valves are so large that the blood circulation cannot move and there is no noise.

I tone forms ventricular systole with a small pause. After tone II, a large pause begins, during which blood flows from the compartment to the ventricle. In this case, too, the blood moves and passes through the atrioventricular foramen without making a sound, because the foramen is large enough. The second tone, together with a large pause, forms ventricular diastole, which is 0.43 s.

Sometimes tones III and IV are heard during diastole in addition to tones I and II.

The third tone was first identified and recorded by VP Obraztsov on auscultation. Its formation is caused by the vibrations of the ventricular wall during rapid diastole filling. The duration of tone III is 0.03-0.06 s. This tone occurs in young people and adolescents.

The fourth tone comes after tone I, which is formed by the vibration of the subdivisions during contraction. It is physiological in children and adolescents and pathological in adults.

The mechanism of tone formation.The sound phenomenon, which is perceived as the I tone in the ear, results from the addition of sounds that are formed in the heart at the beginning of the systole. Its formation is caused by vibration of the ventricular muscles in the phase of isometric contraction (muscle component), vibration of the atrioventricular valves during simultaneous closure, and vibrations of the papillary muscles and joints attached to the valves (valve component).

In addition, the formation of tone I involves the contraction of the pelvic muscles (subcomponent component) and the vibration of the vascular wall (vascular component) during the period of blood flow from the ventricles to the aorta and pulmonary artery. It follows that I tone is formed in the initial stage of pumping blood into the vein in the phase of isometric tension of the ventricular muscles. Its duration is 0.08-0.12s.

The mechanism of formation of tone II is compact. It is formed by the closure and vibration of the crescentic valves of the aorta and pulmonary artery. The duration of the second tone is 0.05-0.08s.

The following is taken into account when listening to the heart:

Graphical representation of apex, basal, systole, diastole, and heart tones on FKG, ECGs.

How to differentiate ventricular systole from diastole on auscultation? On cardiac auscultation, ventricular systole should be distinguished from diastole, which is very important in the diagnosis of various heart diseases. Systolic heart in various increased heart defects (mitral, tricuspid regurgitation and narrowing of the aortic orifice), as well as congenital heart defects (narrowing of the mouth of the pulmonary artery, opening of the Botallov stool and interventricular barrier) noise is heard, in other heart defects (narrowing of the left and right atrioventricular foramen, insufficiency of the aortic and pulmonary artery valves) the noise is heard during diastole. It is therefore important to know at what phase the noise is generated in distinguishing the various defects of the heart.

To distinguish systole from diastole, it is necessary to distinguish tone I from II, because tone I corresponds to a small pause ventricular systole, tone II forms a large pause - ventricular diastole. The difference between the two tones is due to the following signs: first, tone I is strongly loud and continuous at the apex of the heart relative to tone II, and second, it is heard after a long pause.

At the apex of this distal mitral valve sounds are well transmitted; The vibration of the mitral valve in the formation of tone I, the involvement of ventricular contractions, the formation of tone II are located far from the apex of the heart and are poorly transmitted to this area.

In addition, tone I corresponds to the heartbeat and the pulse of the carotid artery. In the second intercostal space on the right side of the dream (aorta) and on the outer left side (pulmonary artery) tone II is heard louder than tone I, because here the sound produced by the closing of the semicircular valves is better heard.

Evaluation criteria №12

The name of the topic	**Ball**	**Baho**	**The level of knowledge of the student**

Cardiac auscultation: characteristics of heart sounds in a healthy person. Hearing points of heart tones. The main properties of sounds: timbre, power. Increase and decrease of basic sounds. Changes in sounds in cardiovascular disease: the rhythm of the horse's drum, the rhythm of quail singing, pendulum-like rhythm, embryocardia. Tachycardia, bradycardia, arrhythmia.	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Homework 13, independent work

Practical training №13

Heart murmurs. Pulse check. Pulse properties. Blood pressure and rules of its measurement. The concept of hypertension and hypotension. Diagnostic value and methods of examination.

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training
Practical training plan	Cardiac auscultation. The mechanism of formation of cardiac interactions, their classification. Characterization of cardiac interactions in cardiovascular pathology. FKG recording system. The concept of normal FKG, EXOKG. Diagnostic significance.
The purpose of practical training:	To study the mechanism of formation of cardiac interactions, their classification and characteristics. To form an understanding of Nor-mal FKG, EXOKG.
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	31. Controls the cleanliness of the audience 32. Checks students' readiness for classes 33. Controls attendance	
1. Introductory phase of the	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech	

training (10 minutes)	3. Develop a list of references used in the study of science	
2 - the main stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment 5. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. 1 Types of noise, the mechanism of formation
2. The mechanism of systolic murmur, the place of hearing
3. The mechanism of diastolic noise, the place of hearing
4. describe the types of noise
5. Explain the properties of noise
6. The difference between systolic and diastolic noises
7. The difference between organic and functional interactions
8. What is asynchronous contraction
9. What is isometric contraction
10. Describe the phases of diastole
11. the mechanism of formation of pericardial friction, the place of hearing
12. What are the pleural pericardial sounds
13. Normal FKG recording technique
14. Graphic representation of 1 ton
15. Graphical representation of 2 tones
16. Explain the explanation of systolic murmur in FKG
17. Describe the diastolic noise in the FKG
18. Difference of mitral valve opening tone from 3 tones
19. Give an idea about ENOKG

The “beehive” method

In this method, the problem is analyzed with the whole group or with two small groups. The assigned task can be assigned to one or two different groups for the whole group. Within 10-15 minutes, group participants analyze the task solution and report to each other. The best option will be selected from them.

Heart murmurs- Auscultation is the most effective way to diagnose valve pathology, and in addition to tones, heart sounds can be heard. Noises occur inside the heart (intracardiac) and outside (extracardiac). Intracardiac interactions are divided into functional and organic interactions. There must be several factors for noise to occur. These are:

-Congenital and acquired factors - a defect of the barrier between the ventricles and ventricles, incompleteness of the Batalov hole.

-Faster or normal flow of blood from the valve in a normal or pathological condition.

-Flow of blood from a narrowed and uneven hole to an enlarged section or vein.

-Noise is caused by retrograde flow of blood from the heart valve with insufficiency.

Creates organic interactions from the anatomical changes of the heart valve. Functional interactions are caused by an acceleration or increase in blood flow and a decrease in its viscosity. The mechanism of intracardiac interactions is as follows: failure of the valve threads to close tightly with each other and narrowing of the valve orifice (normally 4-6 cm^2), ie in stenosis, the valve threads shorten and cause relative deficiencies. As a result of a change in the distance of the valve threads or the pulling of the valves does not completely close the ventricle, a certain part of the blood regurgitates and noise is generated. There will be systolic and diastolic noises as noise is generated. Systolic murmurs do not always occur due to heart disease, perhaps in most cases due to the acceleration of blood flow. Diastolic murmurs are constant, always caused by alternative changes in the valves, and the heart may need to be treated or additional tests performed to confirm.

Classification of noise

1. Systolic murmur

a) Pansystolic (golosystolic) noise

b) Mesosystolic (systolic driving) noise

c) Early systolic murmurs

d) Moderate, late systolic murmurs

2. Diastolic noises

a) Early high (proto) diastolic noise

b) Mesodiastolic noise

c) Presystolic noise

3. Constant interactions

For pansystolic noise to occur, there must be a flow (blood flow) between the chambers of the heart, with a large pressure difference between the systole in one of the chambers (for example, between the left ventricle and the left ventricle or between the ventricles).). In the pathological condition, the return blood flow gradient pressure and regurgitation flow (flow) begin in the early contraction phase and continue until the muscle relaxation is complete.

The configuration of mesosystolic (systolic driving) interaction is crescendo (increasing) - decrescendo (decreasing) and is formed during the pumping of blood to the aorta and pulmonary septum. Shortly after the interference S1 (systole), at this time the pressure in the ventricles increases to open the crescentic valves. The noise increases as the blood flow increases, while the noise decreases as the blood flow decreases. When the crescentic valves are normal, this noise is formed when the blood rate increases (anemia, thyrotoxicosis, pregnancy). In some people, functional mitral (sometimes tricuspid) regurgitation also results in mesodiastolic noise, which must be distinguished from aortic stenosis noise, and EXOKG, FKG are required.

Early systolic murmurs are rare. They begin with tone I and end in the middle of the systole, and are more common in tricuspid regurgitation without pulmonary hypertension. In acute mitral regurgitation, when the interventricular barrier defect is large, it occurs with pulmonary hypertension and a small defect in the interventricular barrier muscles, and the noise is reduced between and at the end of systole.

Late systolic murmurs occur at mild to moderate elevations. High noises begin after blood is pumped to the left ventricular tip and end before S2. They are caused by the anatomical and functional changes of the ring (coltso) and the ventricle causing the mitral valve to contract or not close.

Early high (proto) diastolic noise is heard at the beginning of the diastole period.

Mesodiastolic noise is heard in the middle of the diastole period.

Presystolic noiseat the end of the diastole period, ie before the systole. Intracardiac interactions are irradiated along the bloodstream. For example, the noise generated in aortic stenosis is transmitted to the subclavian and external carotid arteries, the noise generated in aortic valve insufficiency is well heard at the Botkin-Erb point.

The difference between the noises

Morphological changes	Systolic murmur	Diastolic noise
Mitral valve insufficiency	+	-
Mitral foramen stenosis	-	+
Three-way valve failure	+	-
Three-layer perforated stenosis	-	+
Aortic valve insufficiency	-	+
Aortic foramen stenosis	+	-
Pulmonary valve insufficiency	-	+
Pulmonary hole stenosis	+	-

Differences between functional and organic interactions

Noise feature	Functional noise	Organic noise
Often systolic murmur	+	Systolic, diastolic
The noise is not constant and can disappear if the body position changes	It disappears	It's getting stronger
It is most often heard in the pulmonary septum and less frequently in the apex of the heart	It can be heard	Inaudible
The noise is short, soft,	+	-
Noises are heard in a limited area, where they are formed, there is no irradiation	+	-
Causes changes in the myocardium	There is no hypertrophy	There is hypertrophy

Functional interactions should be distinguished from relative interactions. Relative noises occur without change in the valves, i.e. in ventricular hypertrophy (increases in volume) the mitral valve dilates, in its systole blood flows into the compartment and produces a systolic murmur. The diastolic noise generated by the expansion of the aortic and pulmonary septal openings is also included in this category of noise. This noise is called Still's diastolic noise.

Auscultation reveals the following:

1. Which phase of the heart correspond to the noise.
2. The nature, strength, duration of the noise
3. Localization of noise and where it is heard
4. Irradiation

There may be a configuration of noise;

Crescendo (growing)

Decrescendo

Crescendo-decrescendo (rhombus-shaped)

There are three types of diastolic murmurs: Protodiastolic - after the second tone before diastole, mesodiastolic - after the second tone between diastole, presystolic - the end of diastole is heard at the beginning of systole. Other factors are also involved in noise generation. These are: the faster the blood flows, the louder the noise or, conversely, in some cases the heart sounds belong to the pericardium or pleura — extracardiac noises. General characteristics. The simple noises generated propagate through the bloodstream. For example, a systolic murmur generated in aortic stenosis is heard in the carotid artery, the external carotid artery. In heart failure, the diastolic murmur generated in the aortic valve is heard in the III-rib area (Botkin-Erb point) on the left, except for the right aortic projection (II-rib interval). Extracardiac interactions - Frictional interactions of the pericardium occur in inflammation of the pericardium when fibrin deposits in the parietal and visceral pleural effusions. This noise is also heard during diastole as a result of an aneurysm that is sometimes caused by a myocardial infarction. Pleural pericardial murmur is a murmur that occurs when inflammation of the pleural effusion in the same area accompanies the pericardium.

III. Instrumental verification methods.

The following instrumental methods of examination are performed in diseases of the cardiovascular system.

1. ECG; FKG;
2. EXOKG, doppler EXOKG;
3. Radiology;
4. Coronary angiography (angiography);
5. Sphigmography;
6. Phlebography;
7. Capillaroscopy;
8. Capillarography;
9. Rheography;
10. Ultrasound examination of the heart
11. Radionuclide ventriculography
12. Catheterization of the heart cavities
13. Magnetic resonance imaging;
14. Perfusion scintigraphy (201 TL). Myocardial perfusion radioisotope scintigraphy and daily monitoring, etc.).

Evaluation criteria №13

The name of the topic	**Ball**	**Baho**	**The level of knowledge of the student**
Cardiac auscultation. The mechanism of formation of cardiac interactions, their classification. Characterization of cardiac interactions in cardiovascular pathology. FKG recording system. The concept of normal FKG, EXOKG. Diagnostic value	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Independent work. Comparative diagnosis of organic and functional interactions
Homework. 14

Practical training №14

Electrocardiography. Recording rules. Normal electrocardiogram. ECG analysis. ECG changes in ventricular and ventricular hypertrophy. ECG signs in coronary insufficiency.

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training

Practical training plan	Vascular examination. Characterization of the pulse in a healthy moment and in pathology of the cardiovascular system. Arterial blood pressure. The concept of hypertension and hypotension. A method of measuring arterial blood pressure. ECG recording.
The purpose of practical training:	Vascular examination and pulse characterization. Arterial blood pressure. To form an understanding of hypertension and hypotension.
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	34. Controls the cleanliness of the audience 35. Checks students' readiness for classes 36. Controls attendance	
1. The introductory stage of the training (10 minutes)	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
2nd stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment 5. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. 1. What is a pulse
2. Pulse detection points
3. Blood pressure was first measured by whom
4. List the pulse and its properties
5. What do you mean by pulse rhythm
6. What is the pulse frequency
7. What is pulse tension
8. What is pulse fullness

9. What do you mean by pulse size
10. Pulse form and types
11. Read what stigmography
12. Give what is phlebography
13. Vascular auscultation technique
14. Why blood pressure has an individual indicator
15. How blood pressure changes in the norm and what do you mean by borderline blood pressure
16. What is minute and systolic volume
17. Calculate the phases in the blood pressure measurement
18. What is the average or dynamic pressure
19. What is the basic or fee pressure
20. Give an idea about arterial hypertension and arterial hypotension

"Academic controversy" method

The group is divided into two groups, each of which is assigned a situational issue, for example, “consultation doctor-patient”. In each group, 1-2 students write down the pros and cons of the consultation - "lawyers", the other 2 students write down the disadvantages of the consultation - "prosecutors".

The findings of lawyers and prosecutors are analyzed by the whole group.

ECG examination method

ECG examination is performed during the attack, in the absence of sensitivity is given tension (except for myocardial infarction);

Step-test (master probe) uses 2 ladders (ladder height should be 22.5 cm);

a) Veloergometry-step physical stress method is used and ECG is performed in parallel;
b) Treadmill test-treadmill, where the angle of inclination varies;
c) Daily monitoring of ECG on Halter;
d) Electrical stimulation of the esophagus;
e) With EXOKG-stress test;
f) Coronary angiography is the gold standard;

To determine whether the changes in the myocardium are functional or organic, a re-ECG is taken after a certain period of time by applying a drug voltage to the myocardium.

Test with B-adrenoceptor blockers. To do this, an ECG is taken before the test and the patient is given 40-80 mg of anaprilin or obz, and an ECG is taken 30-60 or 90 minutes later, and the previously recorded changes in the RS-T and T teeth are partially or completely functional. and is considered an organic change if it does not meet the norm.

Test with potassium chloride. An ECG is performed before the potassium chloride test and the patient is given 4-6 mg of potassium chloride per os and re-ECGed after 30-60 or 90 minutes, and the RS-T and T teeth are pre-recorded. changes are considered functional if they are partially or completely normal and organic if they are not normal.

Normal ECG. ECG recording technique (Figures 52 a and b and 53): The patient should be mentally and physically prepared before receiving an ECG. The purpose of obtaining an ECG for the mental preparation of the patient, its importance in diagnosis and treatment, is explained as absolutely safe for the patient's health. In the physical preparation of patients, attention is paid to the following;

- The patient lies on the couch, undressed to the waist, with his legs and arms bent at the knees and elbows.
- By turning on the electrocardiograph, it is checked that it is working and that there is a charge or current in the socket, as well as an ECG paper tape before recording. The ECG is heated for 5 minutes.
- The place where the electrodes are placed is wiped clean with alcohol, if there are hairs, it is thoroughly cleaned and a special ECG gel is applied or placed on a gauze napkin moistened with 0.9% saline solution.

➢ The electrodes are attached to the muscles in the following sequence: red electrodes on the right arm, yellow electrodes on the left arm, green electrodes on the left leg, and black electrodes on the right leg.

After removing the hairs from the areas where the breast electrodes are placed, gel is applied or moistened with 0.9% saline solution and the breast electrodes are placed.

V1- red electrode - is placed along the right edge of the sternum between the IV ribs;

V2- yellow electrode is placed along the left edge of the sternum at the IV intercostal space.

V3- green electrode is installed between electrodes V2 and V4;

V4- brown electrode- set in the V rib space along the left midline;

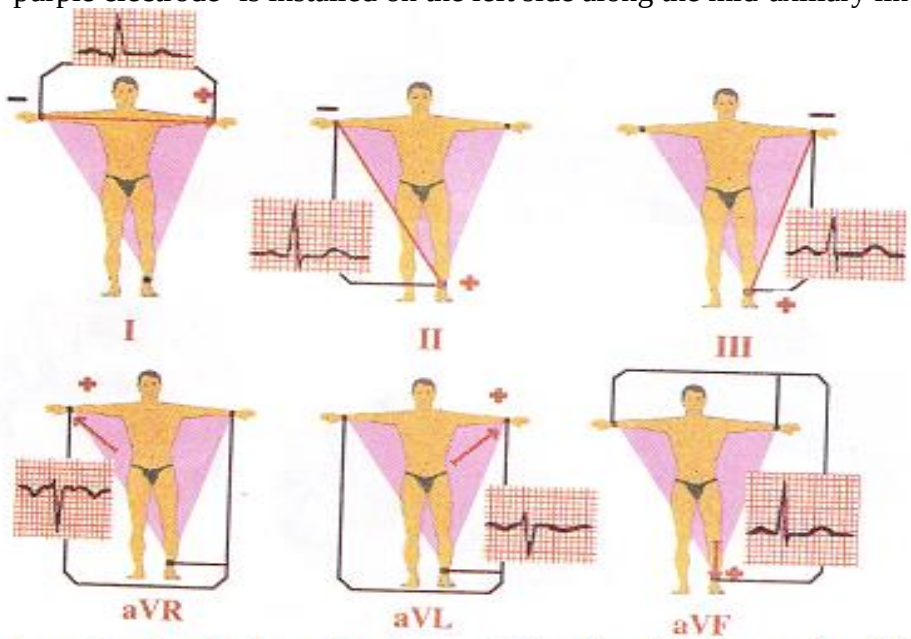
V5- black electrode- set V rib gap along the anterior axillary line on the left side;

52 surat

a-standard connections;

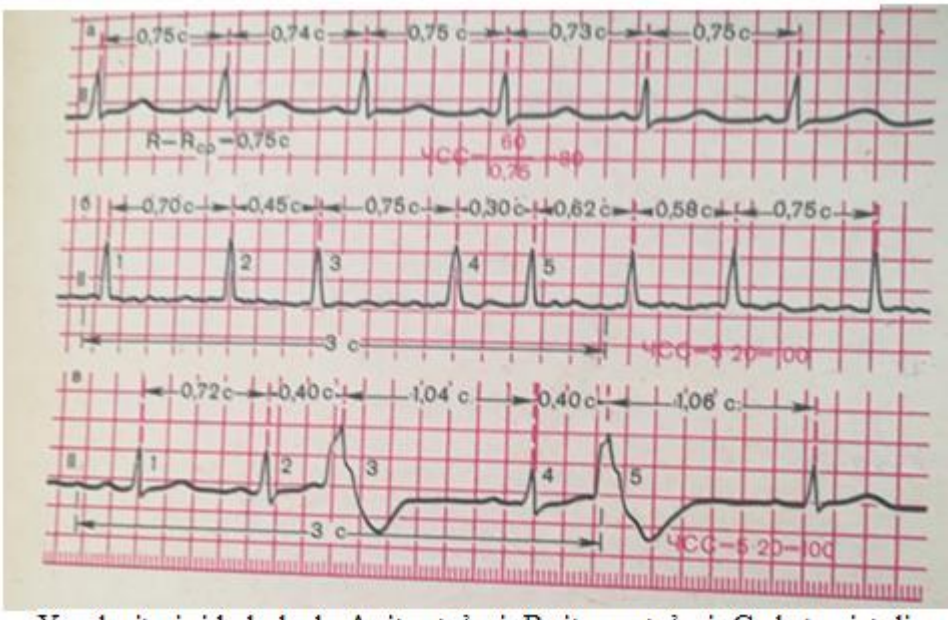
b- chest connections;

V6- purple electrode- is installed on the left side along the mid-axillary line in the V rib space;



53 surat. standart va bir tarmoqli kuchaytirilgan ulanish

When taking an ECG, the standard speed of the paper tape is 25 mm / sec (1 mm / 0.02 sec) and 50 mm / sec is 1 mm 0.04 sec. The ECG records the results of the contraction of the heart muscle, normally recording 3 positive and 2 negative teeth, and sometimes U positive teeth (53 a photo).



Yurak ritmini baholash. A ritm to'gri; B ritm noto'gri; C ekstrasistoliya 53 a photo

Units of measurement of electrocardiography of a healthy person

The parts of the heart that are recorded on the ECG	The contraction phase of the heart	The height of the ECG teeth is in mm	Duration sec. yes
P	Compartment systole	1.5 - 2.5 mm	0.06 - 0.1
PQ cut	----------	----------	0.06 - 0.08
From the beginning of P PQ	Permeability from sinus to Ashof-Commodity node	----------	0.12 - 0.18 (0.2)
Q	----------	The next R ¼ part	0.03
R	Right and left ventricular contraction	5 - 15mm	0.03-0.04 0.06
S	----------	0 - 3	0.02 - 0.04
QRS	----------	--------	0.06 - 0.08
ST cut	----------	--------	0.1 - 0.16
T	----------	2 - 6	0.1 - 0.25
QRST	Ventricular systole	--------	0.32 - 0.35
TP	Heart pause	--------	0.27 - 0.32
TQ	Ventricular diastole	--------	0.42 - 0.46

The duration of ventricular systole depends on the number of heart rhythms.

The numbers shown are based on the average heart rate.

The main teeth on the ECG are the smaller P teeth on the ECG

it reflects the depolarization and excitation of the subunits. Height 1.5-2.5 mm, duration 0.06 - 0.1 sec, this is clearly seen in the standard connection of tooth II. P is the contraction of the ascending part of the tooth to the right and the descending part to the left.

*** Normally P tooth I, II, AVF, V2-V6 are always positive.**

*****III. The AVL and V1 conductors are positive, two-phase, III, and negative for AVL.

*** In the AVR transmitter, the P tooth is always negative.**

*** The duration of the P tooth does not exceed 0.1 s and the amplitude does not exceed 1.5-2.5 mm.**

The PQ interval reflects the permeability of the interventricular barrier. It is measured in the range from the P tooth to the Q tooth. Duration 0.12-0.2 sec. It depends on the number of heart

contractions (CVS). The faster the YQS, the shorter the PQ interval. The Q tooth is the 1st negative tooth in the QRS complex and indicates the time of interventricular barrier depolarization.

*** Normally, the Q tooth is recorded on all standard connections and reinforced single-pole transmitters, as well as on the V4-V6 nozzle transmitters.**

*** The amplitude of the Q tooth in the norm does not exceed the ¼ part of the next R tooth or 3 mm in the norm in the transmitters other than AVR.**

*** In AVR connections lasting 0.03 sec, the Q tooth is very deep and wide (up to 8 mm), but the QS tooth can also be noted.**

The R tooth is the main positive tooth in the ventricular complex and reflects ventricular contraction. The R tooth is always negative in the AVR transmitter. In the normal electrical axis of the heart, its height is highest in the II-standard connection(RII> RIII> RI). Its amplitude is normally 5-15 mm. Duration from V1-0.03s to V6-0.06s. The ascending portion of the R tooth is the right ventricle and the descending portion is the left ventricular contraction.

*** Normally R teeth are recorded on all standard, amplified, and breast transmitters, which may look bad or not be recorded on AVR.**

*** The amplitude of the R tooth in the chest connections increases from V1 to the V4 connection, then the amplitude of the R tooth decreases in the V5, V6 connections. It is also possible that R is not recorded in V1.**

*** Tooth R V1 V2 indicates the spread of excitation in the interventricular barrier, R V4V5V6 indicates right and left ventricular excitation**

The C tooth is the negative tooth and comes after the R tooth. The interventricular barrier indicates the excitation of the basal areas. It does not matter if it is present in all connections. In the standard standard connection, its depth does not exceed 5mm. The C tooth can be deeper in chest connections and up to 25 mm in chest connections.

*** In standard and amplified connections in the normal location of the heart, the amplitude C is small except for the AVR.**

*** In chest transmissions, V1 decreases to V4, and V5V6 may or may not be small.**

*** The R and S teeth can be equal in the V2-V3 transmitters and are also basically equal in the V5-V6.**

The QRS complex comes after the P tooth and reflects the depolarization and excitation of the ventricles and is called the ventricular complex. Complex duration 0.06-0.1 sec average voltage 5 mm to 20 mm. If there are no connections and the voltage does not exceed 5 mm, it indicates that the ECG is low voltage.

The cross-sectional ST is complete depolarization of the myocardium and a straight line is recorded. Its duration depends on the number of heartbeats. Normally it can slide 0.5-1 mm above the isoline or to the right. Multiple shifts are indicative of pathology.

The T-tooth is one of the positive teeth and is the end of repolarization of the myocardium i.e. the transition from excitation to rest. It is always positive and only always negative when AVR is connected. The amplitude of the T tooth is 2.5–6 mm and the duration is 0.12–0.16 s. May be negative in connections at III-AVF and V1.

*** T is positive in teeth I, II, AVF, V2-V6, TI> TIII, Tv6> Tv1.**

*** T teeth can be positive, biphasic, and negative in III, AVL, and V1, and are always negative in AVR.**

After the T tooth sometimes comes a positive U tooth. The QT interval is measured from the QRS complex to the Q tooth. Difficult to measure, relatively easy on II standard connections. The duration of the QT interval is related to the number of heart contractions (CVS). QT duration is 0.32-0.38 seconds in men and 0.35-0.40 seconds in women when the QT interval is 60-80 minutes with a short rhythm when the IUD is high. The RR interval is 0.8 s, reflecting the duration of a cardiac cycle. The duration of the RR interval depends on the rhythm frequency. QRS complexes depend on the frequency of heart contractions. The higher the heart rate, the shorter the interval. To determine the number of heartbeats per minute, the heart cycle is calculated relative to one minute. If the heart cycle is 0.8, how many cycles per minute. So 60: 0, 8 = 75 beats per minute or the number of heartbeats can be calculated differently. ECG paper tape recording speed per minute (50 m / s) 60

sec. multiplied and divided by the number of small cells between RR (e.g., RR = 40 and 1 min YQS resulting.

$$YQS = = = 75.\frac{50x60}{40}\ \frac{3000}{40}$$

Causes of deviations from the electrical axis of the heart: the location of the electrical axis of the heart is sometimes also due to factors unrelated to the heart;

- in people with a high diaphragm, in hypertensives, the electrical axis of the heart (UEO ') is in a horizontal position, sometimes in the left direction;
- in thin and tall people the YuEO 'is placed vertically, sometimes in the right direction;
- YuEO 'is also associated with pathological conditions. As a result of the increase in myocardial mass, ventricular hypertrophy shifts toward the ventricle, which is hypertrophied.

Directions are important in the localization of myocardial infarction:

aVL V4-V6 - left ventricular side wall.

aVL, V1-V3 anterior wall of heart and heart border

V4 heart peak

I, III, aVF, I, aVL, V4-V6 are the lower lateral wall of the left ventricle.

Clinical significance of electrocardiography: Enlargement of the compartments increases in the P tooth and in the ventricular myocardial hypertrophy in the amplitude of the R tooth. Left ventricular hypertrophy is reflected in the standard connection I, II. Ventricular hypertrophy leads to the following changes in the ECG.

* The direction of the electrical axis changes: in left ventricular hypertrophy it shifts to the left, in right ventricular hypertrophy it shifts to the right.

* Ventricular excitation time increases.

* Myocardial regeneration is impaired.

* In left ventricular hypertrophy, the amplitude of the C tooth increases at V5-V6. The amplitude of the R tooth increases in the right direction, a high R tooth appears in the right ventricular hypertrophy in the left direction, and a deep S tooth in the left direction.

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Daily Holter ECG monitoring

Holter monitoring with electrodes is based on the recording of cardio Signals that occur in the patient's body. Daily Holter monitoring of the ECG is an electrophysiological instrumental diagnostic method proposed by the American biophysicist Norman Holter.In this test method, the ECG is recorded continuously for 24 and more hours (up to 7 days). The ECG recording is carried out using a special portable device recorder (registrar-recorder) weighing no more than 500 grams and worn on the patient's waist until the examination is completed. This method records diseases of the cardiovascular system, changes in them during the day and night during continuous, controlled physical activity, and this method cannot be replaced by other methods. Modern recorders are wireless (wireless) with a metal plate or pad with an electrode, attached to a self-adhesive base. placed in special areas of the patient's chest (Photo 54).

The ECG recording is recorded on 2-3 to 12 channels. Usually 2-3 channels are used. These methods cannot completely replace a simple ECG scan.

Depending on the method of examination, ECG recordings are stored on magnetic tape and electronic memory, depending on the amount of ECG recording stored for 2-3 days without interruption (continuous) and fragment (recorded for a certain period of time during the attack).

Inspection procedure. This device shows the battery charge, recording duration, and time spent on recording. At the top of the device are the wires leading to the electrodes, at the bottom is

the SD card (left) and on the right is the Mini USB cable. Disposable adhesive electrodes are used to make contact with the patient's body. In order to ensure the quality of the test results, the chest or the area where the electrodes are attached are cleaned of hair (hairs) and the skin is degreased and wiped with alcohol, dried and the electrodes are glued. During the examination, the examinee can continue his or her normal lifestyle, work, walk, change physical activity, rest, or take medication. The subject may be subjected to physical exertion — climbing stairs, sitting,

The recorded results are summarized using a specially programmed computer. The latest modern registrars themselves summarize the primary classification of ECG recordings, which speeds up the process by making it easier for the physician to summarize the recorded results on a computer. Holter ECG monitoring can reveal the following;

55 surat. ExoKG tekshiruvi

Heart rhythm, frequency and source of rhythm;

Cardiac arrhythmias, extrasystoles of the ventricles, ventricles, etc., Pulsating arrhythmias, paroxysmal tachycardia, blockade, rhythm pauses, etc .;

ECG pulses, intervals PQ, ST, etc .;

You can get information about the rhythm driver (artificial rhythm driver).

Instructions for Holter ECG monitoring; Patients who complain of pain in the heart area, ischemia, arrhythmia, palpitations, palpitations, unexplained loss of consciousness may be screened. At the base, this equipment is used to assess the performance of pacemakers. When long-term ECG monitoring is required, a Reveal XT device implanted under the skin is used. This device works for up to 2 years and the ECG recording is either programmed or activated by the patient.

ExoKG checker See photo 55. ExoKG is one of the main methods of examination of the heart, based on the demonstration of the use and transmission of ultrasound pulses in the valves, myocardium and interventricular barrier of various structures of the heart. The device has an ultrasonic sensor that sends ultrasound pulses to the subject being examined and receives visible exosignals. The exosignals return to the moving picture like wavy lines. During echocardiography, its sensor is mounted on the part of the heart that is not covered by the lungs. The ExoKG sensor is placed to the left of the sternum between the II-III ribs in hypertensives and the IV-V ribs in asthenics. ExoKG recurrence begins at the mitral or aortic valve and is then checked by sending exosignals to other parts of the heart.

In ExoKG, time is set at 1s and amplitude at 1cm, and is designed to measure a range of indicators that measure the amplitude and velocity of a part of a muscle or heart. ExoKG examines intracardiac blood flow and valve stenosis, insufficiency, myocardial status, and the presence or absence of hypertrophy in the heart chambers.

Evaluation criteria №14

The name of the topic	**Ball**	**Baho**	**The level of knowledge of the student**
Vascular examination. Characterization of the pulse in a healthy moment and in pathology of the cardiovascular system. Arterial blood pressure. The	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**

concept of hypertension and hypotension. A method of measuring arterial blood pressure. ECG recording.	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Independent work. Heart defects. Changes in heart rate and pathology
Homework. 15

Practical training №15
Arrhythmias ECG changes. Cardiac automatism and excitability
ECG signs of the disorder.
1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training
Practical training plan	Normal ECG. The concept of teeth, interval, segments and the mechanism of their formation. ECG in case of impaired autonomic excitatory functions. Cardiac dysfunction: automatism, contraction, agitation, conduction.
The purpose of practical training:	Introduce students to the appearance of the ECG when normal ECG and automatism are impaired excitability and conduction functions.
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	37. Controls the cleanliness of the audience 38. Checks students' readiness for classes 39. Controls attendance	
1. Introductory phase of the training (10 minutes)	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
2nd stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment	They are divided into small groups They watch participate

	5. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. 1. What is electrocardiography
2. Explain the basics of ECG recording
3. Explain the structure of the ECG apparatus
4. Explain the principle of operation of the device
5. ECG recording: describe the standard networks
6. Explain the chest networks
7. Explain single-layer networks
8. Explain a normal ECG
9. Describe the rules of ECG analysis
10. Describe the clinical significance of the ECG
11. You know what tests to do when taking an ECG
12. What is vector cardiography
13. What is ballistocardiography
14. What is veloergometry
15. Atropine testing technique
16. Describe the ECG teeth
17. The concept of intervals and segments
18. Types of disorders of cardiac automatism. ECG diagnostics
19. ECG diagnosis of congestive heart failure
20. ECG diagnosis of cardiac excitability disorders
21. ECG diagnosis of cardiac conduction disorders

The "three-step interview" method

Three students will be selected in each group, and the roles of "doctor", "patient" and "expert-UASh" will be divided between them. The student who chooses the patient role is told an anonymous diagnosis, and he or she makes complaints about that diagnosis, the doctor makes a diagnosis, and the expert checks the UASh complaints and the proportion of the diagnosis. Each group is consulted for 10-15 minutes, the expert examines the activity of the doctor on 3 points:

10. What was done right
11. What went wrong
12. How to do it

The conclusion of the group consultation is compared with the conclusion of the expert.

Another type: students are analyzed by the whole group, participating in the clinic in the role of an expert, in a real consultation.

Arterial pulse detection technique

1. It is possible to detect the pulse when the patient is lying down or sitting quietly in a chair.
2. One arm of the patient is in an extended position across the body.
3. You place the tips of the 2nd to 4th fingers of your right hand on the palm surface of the patient's wrist

4. You place the 1st finger of your right hand under the patient's wrist
5. You will feel a pulsation of the vascular wall in the patient's wrist artery at the tips of your 2-3 fingers.
6. Holding the stopwatch in the left hand, the pulse is counted in 1 minute.
7. The arterial pulse number is recorded in the medical records of forms 003, 004.
8. Necessary equipment; stopwatch, 003,004 medical records.

Blood pressure measurement technique

1. To measure blood pressure, the patient should be lying down or sitting quietly in a chair.
2. The patient's right or left arm is removed from the clothing up to the shoulder
3. The patient sits on a bed or chair, with the wrist placed up.
4. The manometer cuff is pulled down by the air intake tube.
5. The cuff is attached to the patient's arm 2-3 cm above the elbow joint, slightly loose.
6. The stroke of the brachial artery from the elbow joint to the patient's hand is detected using 2-3 fingers.
7. The phonendoscope is placed without pressing on the pulse, and the ear canal is connected to the ear.
8. Close the screw and use a balloon to inflate the cuff.
9. The screw is slowly opened and air is expelled.
10. With the release of air, the arterial wall beats from the phonendoscope (systolic pressure)
11. Sounds are then lost during airflow (diastolic pressure)
12. The numbers (from the manometer) are recorded where the sounds are heard and left unheard.
13. The screw is fully opened and air is released into the cuff
14. The cuff is separated from the rubber tube to which the manometer is attached.
15. The cuff is removed from the patient's wrist.

Necessary equipment; thermometer, Apparatus Riva-Rochi, Fonen-doscope, medical documents form 003- 004.

Examination of arterial stroke

Usually, the diagnosis of the disease begins with the detection of the patient's pulse, which gives the doctor the necessary information about the work of the heart. The study of the pulse has long attracted the attention of physicians. In ancient oriental medicine, those who diagnosed the disease based on the nature of the stroke, the pulse wave provides information not only about the state of the cardiovascular system, but also about other organs and systems. (gastrointestinal tract, respiratory system, urinary system). In ancient times, Chinese doctors distinguished 600 different features of stroke, linking it with this or that disease. Usually the pulse is detected in the light artery, the detection location is at the base of the big toe. Indicator in the artery, the middle and ring finger are placed. The doctor's thumb rests on the back of the palm. The patient should stand freely on the heart with his arms slightly bent. The pulse check should be performed on both hands at the same time, if the pulse is the same on both hands, then the checks should be continued on one hand.

The following characteristics of the pulse are determined: speed, rhythm, tension, size, shape, condition of the wall. The heart rate is 60 to 80 beats per minute, which is slightly higher in women than in men. Acceleration of the pulse (pulsus frecuens) more than 90 beats per minute is observed as a result of tachycardia, various external and internal impressions.

When the body temperature rises to 10, the pulse rate increases to 8 to 10 beats per minute. The lag in heart rate when the temperature rises is typical for some infectious diseases (abdominal sweating, jaundice), tuberculosis, measles, heart rate is higher when the temperature rises. An irregular heartbeat with a rise in temperature is observed when heart failure develops.

Tachycardia occurs under the influence of drugs (atropine, platyphyllin, caffeine, etc.). Acceleration of pulse (pulsus rarus) (less than 60 beats per minute) is observed in bradycardia, which can be physiological and pathological. Physiological thinning is observed during sleep,

exposure to cold, fear, anxiety, and during exercise. Pathological bradycardia is observed in myxedema, uremia, jaundice, increased intracranial pressure, cerebral hemorrhage, severe pain, myocardial infarction, transverse blockade, and increased cardiac glycosides.

The rhythm of the pulse. Usually the pulse waves last at the same time interval - the pulse wave is rhythmic (p. Regularis). In a number of pathological conditions this rhythm is disturbed (p. Irregularis). The following arrhythmias can be detected by palpation:

1. Sinus arrhythmia, there is an increase in heart rate during respiration and a slowing of exhalation, and in children, arrhythmia is a physiological condition.

2. Extrasystole. In this case, an unusual wave is formed against the background of rhythmic pulse, which is followed by a continuous pause (pause).

3. Paroxysmal tachycardia. This leads to a sharp acceleration of the rain (160-200 beats per minute).

4. Vibrating arrhythmia. In this case, the pulse wave is different in strength and height, different, hits irregularly.

5. Heart block. Full transverse, in which the pulse is sparse, less than 40 beats per minute, straight, the rate does not change during exercise. In rare cases, a lame pulse (p. Alternans) is observed, in which a single strong strong and weak pulse waves alternate. One of the specific manifestations of stroke is a paradoxical stroke, in which the pulse becomes very weak or disappears during respiration, such a pulse is observed in adhesive mediastinopericarditis and pericardial adhesions with the diaphragm, which complicates cardiac systole.

The pulse tension is determined as follows: the artery is examined with three fingers so that the pressure with the proximal inserted finger is such that the distal inserted finger should not feel the vibration of the pulse. Depending on the tension, the pulse can be hard (p. Durus), soft (p. Mollis) or moderate tension. The completeness of the pulse is determined by the difference between the maximum and minimum oscillations of the artery volume. The pulse may be complete (p. Plenus) or hollow (p. Vacuus).

Incomplete stroke often reflects low blood pressure and is a sign of acute vascular insufficiency.

From the tension and fullness of the vessel comes the magnitude of the pulse, which determines how the cardiovascular system works.

In severe heart failure, changes in heart rate are observed. At this time, the heart beats faster and the vascular tension is disturbed, which is difficult to control, which is called a known-unknown pulsation of the pulse (p. Filiformis).

The state of the pulse depends on the rate of rise and fall of the pulse waves. The pulse can be fast (p. Celer) and slow (v. Tardus), both fast and high (p. Celer et altus) at the same time.

This is characteristic of aortic valve insufficiency, as at this time the diastolic pressure decreases sharply as a result of the blood flowing back to the left ventricle, and the systolic pressure increases and the blood flow rate increases.

The pulse of the vessel may also be small at the same time (p. Tardus et parvus). Such a stroke is characterized by narrowing of the aortic outlet. This makes it difficult for blood to flow from the left ventricle to the aorta, resulting in a decrease in pressure in the aorta.

In an incomplete and complete stroke, a secondary wave is formed after the main pulse wave, such a pulse is called a dicrotic (p. Dicroticus) pulse. They are observed in infectious diseases when the tension of peripheral arteries decreases and inflammation of the heart muscle.

To determine the condition of the artery wall, a palpation is performed sliding down the side of the artery. When connective tissue develops in the artery and a scar is formed, or when calcium salts accumulate in its wall, some parts of it harden and are not crushed when palpated.

In some cases, the pulse may be of two types in both hands (p. Differential). The variety of pulse is determined by its magnitude. This condition can occur as a result of congenital or external compression of blood vessels (scar, tumor, lymph, etc.). When the bicuspid hole narrows, the left ventricle enlarges, resulting in a crushing of the left subclavian artery, which slows the pulse in the left arm.

Pulse can also be checked in the shoulder, groin, hip, below the knee, heel and other arteries. Detection of pulsation of the popliteal and compensatory arteries is of great importance when the inner wall of the leg arteries becomes inflamed (endoarteritis).

In some diseases of the cardiovascular system, the magnitude of the pulse in the arms and legs varies. In the narrowing of the aortic neck, "coarctation" causes a sharp decrease in pulse in the legs, which is normal in the coronary and carotid arteries.

In Takayasi's disease, the pulse is undetectable, the arteries are inflamed and clogged, and there is a decrease or disappearance of the pulse.

Evaluation criteria №15

The name of the topic	**Ball**	**Baho**	**The level of knowledge of the student**
Arrhythmias ECG changes. ECG signs in disorders of cardiac automatism and excitability.	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Independent work. Symptomatology of bacterial endocarditis
Homework. 16

Practical training №16
Basic clinical syndromes. Coronary insufficiency syndrome. Circulatory failure syndrome. Asthma of the heart, pulmonary edema. Vascular insufficiency syndrome. Cardiomegalia. Hypertension syndrome in the small circulatory system.

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training
Practical training plan	Basic clinical syndromes. Coronary insufficiency syndrome. Circulatory failure syndrome. Asthma of the heart, pulmonary edema. Vascular insufficiency syndrome. Cardiomegalia. Hypertension syndrome in the small circulatory system.
The purpose of practical training:	Basic clinical syndromes in students. Coronary insufficiency syndrome. Circulatory failure syndrome. Asthma of the heart, pulmonary edema. Vascular insufficiency syndrome. Cardiomegalia. Introduction to hypertension syndrome in the small circulatory system.
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	40. Controls the cleanliness of the audience 41. Checks students' readiness for classes 42. Controls attendance	
1. Introductory stage of training (10 minutes)	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
2 - the main stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment 5. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. 1. Describe rheumatism
2. Rheumatism etiopathogenesis

3. Pathomorphological changes in rheumatism and their relationship to the clinic of the disease
4. Classification of rheumatism
5. Rheumatism clinic
6. Basic and additional diagnostic signs
7. A general review of patients with rheumatism
8. Give an idea of primary rheumatic heart disease
9. Give an idea about recurrent rheumatic heart disease
10. Basic laboratory indications in rheumatism
11. ECG and EHOKG changes in rheumatism
12. Complications of rheumatism
13. Describe mitral regurgitation
14. Hemodynamic changes in mitral valve insufficiency
15. Etiology of mitral regurgitation
16. Clinic of mitral valve insufficiency
17. Results of physical examination in mitral valve insufficiency
18. Hemodynamic changes in mitral stenosis
19. Clinical diagnosis of mitralstenosis
20. Changes in radiographic examination in mitral stenosis. ECG EHOKG, FKG

The "pen in the middle of the table" method

The whole group is asked questions (e.g., diabetes symptoms, beta-blocker medications, UIC propensity factors). Each student writes their answer on a piece of paper and sends it to a neighbor, placing the pen in the middle of the table.

The teacher checks the group work and writes the general option in the notebook.

Cardiac asthma

Asthmatic variant- Focal necrosis of the left ventricular muscle, accompanied by heart failure. Patients are bothered by symptoms such as inspiratory shortness of breath, symptoms of suffocation, cough with bloody foamy sputum, shortness of breath, pain in the chest area. Cyanosis of the skin and mucous membranes when examining patients, the skin of patients with cold sweats, breathing shallow, frequent, short. On palpation the sound drill is intensified on the lungs, on percussion a hoarse sound, on auscultation small humid bubbles are heard mainly in the lower part of the lungs. Blood pressure is low, the pulse is rapidly accelerated. Heart paroxysms can be seen when patients are examined for sputum. Circulatory disorders and mortality rates are high.

Lung tumor

Prolonged pneumonia results in swelling of the interstitial tissue and filling of the alveoli with exudate and fibrin, filling of the alveoli with blood in pulmonary infarction, pneumosclerosis of the lung tissue and connective tissue in the cornea. condensation syndrome in lung tissue due to swelling or tumor tissue. The main

complaints of patients are shortness of breath, cough, shortness of breath, general weakness, fever, etc. In the general examination, the "sick" side of the chest lags behind in breathing; increased vocal resuscitation in the dense area of lung tissue, muffled sound over the hardened area of the percussion lung, pathological bronchial breathing on auscultation, increased bronchophonia, loud (consonant) wheezing in cases of fluid secretion in the small bronchi.

Toxic lung tumor

Such a tumor of the lung (edema pulmonum toxicum) occurs when poisoned by volatile substances, especially phosgene and diphosgene, louisite, mustard gas, and industrial nitrogen oxides.

The venom affects the membrane between the air in the alveoli and the blood in the capillaries, ie the walls of the capillaries and alveoli. On the one hand, the diffusion of gas into the blood is disrupted, on the other hand, the permeability of the pulmonary capillaries increases. .

If examined pathologically, the lungs are filled with blood, the edges of the aggravated alveoli are swollen and the capillaries are dilated. The fluid in the alveoli is high in protein, which -

this process can be thought of as a consequence of ‘serous inflammation’.

The clinical picture of the disease begins with itchy throat, shortness of breath, dizziness, and cough, with events that occur soon after inhalation of toxic gas. After a while, these symptoms disappear and the patient feels a little relieved. After a latent period, which usually lasts 4-6-8 hours, the symptoms of lung cancer begin to appear. Initially, the patient begins to breathe frequently and shallowly, the cough quickly intensifies, a large amount of foamy sputum is released during the cough, the sputum first becomes colorless and then turns yellowish-pink (hemorrhagic sputum). Patients are generally uncomfortable. The patient's body, especially the face and limbs, become bruised (period of blue anoxemia). Then steam changing skin color iq becomes gray (period of gray anoxemia). On lung percussion, its boundaries are widened. On auscultation, a large number of wet wheezes of various calibers are

heard from the top to the bottom of the lungs. The pulse is accelerated, the blood is thickened.

In the first period, the veins are swollen and in the second they are narrowed.

Passage. In severe poisoning, the patient dies a few days after the onset of lung tumors, and in mild cases, the patient recovers in 1-2 weeks. Sometimes pneumonia is added or the disease progresses to pulmonary sclerosis.

The cure. The patient should feel absolutely calm, the first - in the period of blue anoxemia - it is useful to take blood from the patient, the second period - in the period of gray anoxemia it is absolutely impossible to do so. (This helps the tumor serum to return to the blood from the alveoli of the lungs.) In heart failure, strophanthin and camphor are given, and in gray anoxemia, saline is given intravenously.

Evaluation criteria №16

The name of the topic	**Ball**	**Baho**	**The level of knowledge of the student**
Basic clinical syndromes. Coronary insufficiency syndrome. Circulatory failure syndrome. Asthma of the heart, pulmonary edema. Vascular insufficiency syndrome. Cardiomegalia. Hypertension syndrome in the small circulatory system.	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Independent work. Symptomatology of postinfarction cardiosclerosis
Homework № 17

Practical training №17

Symptomatology of rheumatic fever and primary rheumatic heart disease. Mitral foramen narrowing and mitral valve insufficiency. Principles of diagnosis and basic treatment.Aortic defects. Aortic stenosis. Aortic valve insufficiency. Principles of diagnosis and basic treatment.

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training
Practical training plan	Symptomatology of aortic defects (aortic valve insufficiency and aortic stenosis). Circulatory insufficiency (compensated and decompensated condition). Vascular insufficiency.
The purpose of practical training:	Introduce students to pathological conditions such as aortic regurgitation and vascular insufficiency.
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.
Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	43. Controls the cleanliness of the audience 44. Checks students' readiness for classes 45. Attendance is monitored	
1. Introductory phase of the training (10 minutes)	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
2 - the main stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment 5. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. 1 Describe aortic defects
2. Etiology of aortic valve insufficiency

3. Hemodynamic changes in aortic valve insufficiency
4. Clinical manifestations of aortic valve insufficiency
5. General examination of patients with aortic valve insufficiency
6. What is carotid dance
7. What is MYusse symptom
8. What is the double shock of Traube and the double noise of Vinogradov-Dyuroz
9. X-ray ECG and FKG changes in aortic valve insufficiency
10. Etiology of aortic stenosis
11. Changes in hemodynamics of aortic stenosis
12. Aortal stenosis clinic
13. Aortic stenosis objective and subjective data
14. ECG, FKG and radiographic changes
15. Etiopathogenesis of circulatory failure
16. Clinical manifestations of circulatory failure
17. Classification of circulatory failure
18. Objective and subjective changes in circulatory failure
19. Etiology of vascular insufficiency
20. Vascular insufficiency clinic, objective and subjective data

The "three-step interview" method

Three students will be selected in each group, and the roles of "doctor", "patient" and "expert-UASh" will be divided between them. The student who chooses the patient role is told an anonymous diagnosis, and he or she makes complaints about that diagnosis, the doctor makes a diagnosis, and the expert checks the UASh complaints and the proportion of the diagnosis. Each group is consulted for 10-15 minutes, the expert examines the activity of the doctor on 3 points:

13. What was done right
14. What went wrong
15. How to do it

The conclusion of the group consultation is compared with the conclusion of the expert.

Another type: students are analyzed by the whole group, participating in the clinic in the role of an expert, in a real consultation.

Rheumatism

Acute rheumatic fever or rheumatism is a systemic disease characterized by inflammation of the connective tissue. It is an autoimmune disease of the tissues that affects the joints and mainly the heart. It is caused by group A b-hemolytic streptococcus and is manifested by damage to the cardiovascular system and joints in people with a genetic predisposition. Most often, children (mostly girls) and adolescents between the ages of 7 and 20 become ill 2-4 weeks after chronic infections such as angina, pharyngitis, scarlet fever, and gingivitis. Hereditary predisposition is also important.

Pathomorphology;1. In the stage of mucoid swelling, superficial damage to the connective tissue occurs and the process is reversed if treated. 2. During the fibrinoid swelling phase, profound changes occur in the connective tissue and this process is irreversible. 3. Granulematosis Ashof Talalaev granulomas, rheumatic nodules are formed, which are composed of lymphoid, basal cells, cardiohistiocytes. Rheumatic granulomas are often observed in the myocardium, endocardium, joints. 4. In the phase of sclerosis, scars are formed instead of fibrinoid changes. Each phase lasts up to 2 months.

Clinical landscape. The following clinical forms of the disease are distinguished:

- Acute rheumatic fever; - Recurrent rheumatic fever.

The disease is manifested by the following primary and secondary clinical signs.

Basic: carditis, arthritis, chorea, ring erythema, rheumatic nodules;

Additional: fever, arthralgia, abdominal syndrome, serositis.

Rheumatism has different clinical manifestations and depends on the location of inflammatory changes in the connective tissue in the organs, as well as the severity of the process. Primary exacerbation of rheumatic fever in typical casesstreptococcal infection begins 2-3 weeks after infection. Sudden or gradual general malaise, an increase in body temperature to 37º or a rapid rise to 38-39º is observed. In rheumatism, fever is usually accompanied by chills and sweating. Symptoms of polyarthritis (inflammation of the joints) occur. This causes swelling in the joints, their redness, pain at rest and in motion. In rheumatism, large joints such as the knees, ankles, heels, elbows, and shoulders are affected. For rheumatic polyarthritis, the symmetry of the joint damage (simultaneous knee or shin, compensation joints), the sequence, and the migratory pain (inflammation quickly spreads from one joint to another) transition to the other) character. Usually the inflammatory processes in the joints return completely after a few days and no deformations are observed. In most cases, in rheumatism, the temperature rises for 2-5 days and normalizes after the disappearance of arthritis symptoms. Sometimes in the early stages of the disease appear unstable pink-ring-shaped erythema-shaped rashes on parts of the body, and they disappear without a trace after a certain time. One of the typical but rare symptoms for rheumatism is subcutaneous rheumatic nodules. Its size ranges from wheat to pea-sized, hard and painless, usually located on the surface of the affected joints and in the neck area. In most cases, in rheumatism, the temperature rises for 2-5 days and normalizes after the disappearance of arthritis symptoms. Sometimes in the early stages of the disease appear unstable pink-ring-shaped erythema-shaped rashes on parts of the body, and they disappear without a trace after a certain time. One of the typical but rare symptoms for rheumatism is subcutaneous rheumatic nodules. Its size ranges from wheat to pea-sized, hard and painless, usually located on the surface of the affected joints and in the neck area. In most cases, in rheumatism, the temperature rises for 2-5 days and normalizes after the disappearance of arthritis symptoms. Sometimes in the early stages of the disease appear unstable pink-ring-shaped erythema-shaped rashes on parts of the body, and they disappear without a trace after a certain time. One of the typical but rare symptoms for rheumatism is subcutaneous rheumatic nodules. Its size ranges from wheat to pea-sized, hard and painless, usually located on the surface of the affected joints and in the neck area. but one of the rare symptoms is subcutaneous rheumatic nodules. Its size ranges from wheat to pea-sized, hard and painless, usually located on the surface of the affected joints and in the neck area. but one of the rare symptoms is subcutaneous rheumatic nodules. Its size ranges from wheat to pea-sized, hard and painless, usually located on the surface of the affected joints and in the neck area.

The main clinical manifestations of rheumatism are heart attack (carditis), the course of the disease and the consequences of rheumatic fever. Symptoms of heart damage appear 1-3 weeks after the onset of the disease. Patients complain of palpitations and a feeling of cessation, palpitations, heaviness or pain in the heart area, shortness of breath after some physical exertion.

When examining patients objectivelywe may see ring-shaped erythematous rashes on the skin of the face, neck, chest, and abdomen, nodular erythema mainly on the legs, and subcutaneous rheumatic nodules. Small hemorrhages can be seen in the skin due to increased capillary permeability. It can be seen that due to the increase in the size of the heart, the area of the heart apex impulse expands, i.e., shifts to the left, upwards. Palpation can detect symptoms of systolic and diastolic cat wheezing. On percussion, it can be detected that the heart has shifted the relative blunt limit to the left and up. Auscultation reveals a decrease in tones (especially the first), a gallop rhythm when the myocardium is severely damaged (I and II tones decrease, III or IV tones increase, the main tones form a III rhythm tone, ie gallop rhythm).(mitral) was associated with relative insufficiency of the valves or damage to the papillary muscles a soft systolic murmur is heard. The pulse is small, mild, often accompanied by tachycardia and arrhythmia. Blood pressure is usually low.

When endocarditis is added in the early stages of the disease, a sharp systolic murmur is heard on auscultation, which increases the resonance of physical exertion, and sometimes it takes on a musical tone. Occasionally, a diastolic murmur occurs, which is associated with thrombi settling on the valve plates. The circulatory movement from the compartment to the ventricle causes this noise to occur.

Rheumatic chorea- is manifested by damage to the nervous system and is more common in children. Examination of patients may reveal changes in them, such as irregular contraction of facial

muscles and involuntary movements of the legs, ambiguity of expressions, distortion of the forearm, inability to hold spoons when eating. In addition to the above, the disease affects the mucous membranes, skin, lungs, kidneys, liver and a number of other organs.The ECG often reveals cardiac conduction disturbances - more I-II degree of atrioventricular block, extrasystoles and other arrhythmias. In some cases, the ECG voltage drops. A change in the T tooth and a decrease in the ST segment from the midline are noted due to impaired myocardial trophism. . If a defect develops in the heart valves, we can see hypertrophy in the muscles (to the part where the defect develops in the valve). On radiological examination, we can see that the heart shadow is enlarged due to the occurrence of hypertrophy in the heart.

Laboratory tests. A number of additional screening methods are used in the diagnosis of rheumatism. In its acute phase, along with leukocytosis, its formula shifts to the left. Later, eosinophilia, mono- and lymphocytosis, and an increase in ECG (in severe cases, 50-70 mm / s) are observed. Dysproteinemia is characterized by a decrease in the amount of albumin (less than 50%) and an increase in globulins, resulting in a sudden decrease in the albumin-globulin ratio. The proteinogram shows an increase in the content of a2-globulin and g-globulin fractions and fibrinogen to 0.6-1.0% (up to 0.4% in the norm). In healthy people, undetectable S-reactive protein appears in the blood; the amount of mucoprotein increases. Antistreptolysin, antigialuronidase, and antistreptokinase titers are above normal.

Congenital and diagnosis of acquired heart defects

Congenital heart defects interventricular septal defect, interventricular septal defect, open arterial (Batalov) protocol, Fallo tetrad and pentad.

In open arterial (Batalov) protocolthere is a defect between the pulmonary artery and the aorta, and blood constantly flows from the large circulatory area to the small circulatory area. Patients may be found to be unable to withstand physical exertion when questioned and are lagging behind in growth when examined. On palpation, the area of the heartbeat expands and shifts to the left. Percussion is accompanied by left ventricular hypertrophy, dilation of the pulmonary artery in the late stages. On auscultation, noise is heard during systole and diastole, especially at the end of systole. Auditory site II rib space to the left of the sternum. Pulse pressure is high, systolic pressure is high and diastolic pressure is low.

Fallo tetradasi.

Fallo tetrad is a common congenital heart defect that occurs in children with cyanosis of the skin from childhood. The Fallo tetrad consists of four components.

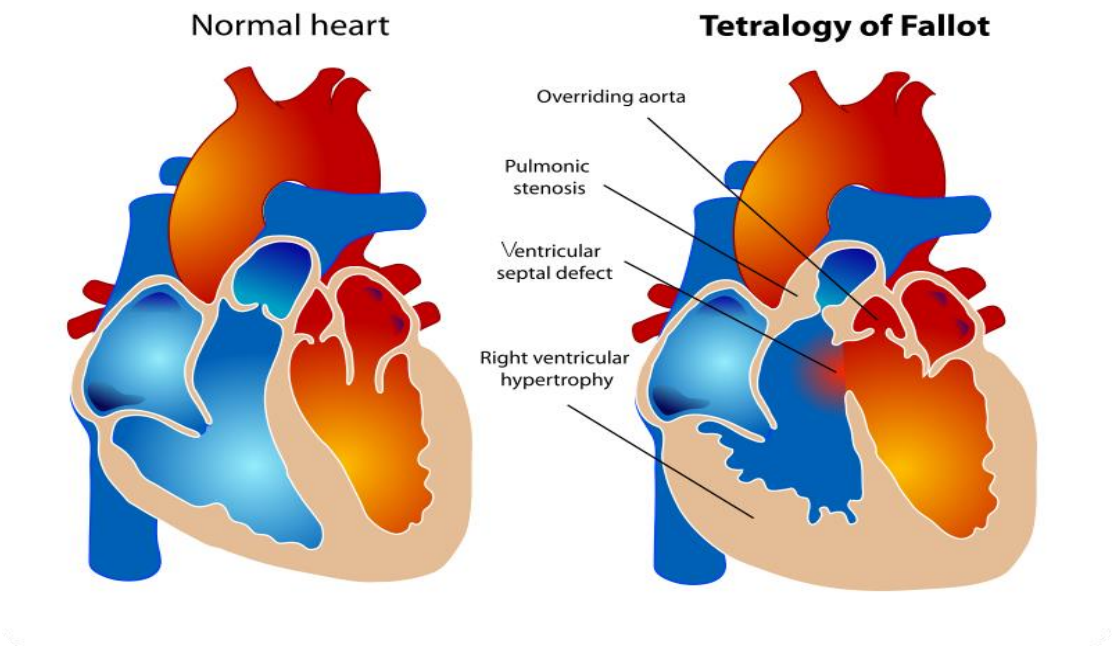
Interventricular barrier defect;

Pulmonary artery stenosis;

Aortic dextra position;

Compensatory hypertrophy of the right ventricle; (57 a photo)

When patients are asked, they say that they are bothered by symptoms such as constant shortness of breath, constant fatigue, inability to withstand physical exertion, headaches, and decreased ability to work. When patients are examined, we can see skin and mucous membranes, cyanosis of the lips, fingers Hippocrates fingers (drumstick-like), lagging behind in physical development, heart palpitations. Percussion reveals right ventricular hypertrophy. On auscultation, a high systolic murmur is heard to the left of the sternum in the II-III intercostal space. Diagnosis is good with ECG, EXOKG, Doppler, radioscopy and graphics. In the general analysis of the blood is observed erythrocytosis, an increase in EchT.



AORTA VALVE DEFICIENCY

Aortic valve insufficiency (insufficiency valvularum aortae) occurs for a variety of reasons, including rheumatic endocarditis, septic endocarditis, and traumatic aortic injury. if a person is diagnosed with such a defect and there is no evidence of rheumatism in the anamnesis, it is necessary to consider the possibility of injury. Rheumatic insufficiency of the aortic valves is often accompanied by aortic stenosis or mitral regurgitation, while trauma is itself isolated. Anatomical changes such as rheumatic and septic aortic regurgitation are reminiscent of changes in endocarditis;

Examination of the area of the heart reveals that the apex of the heart is strong and diffuse. also - shifts to the sixth rib space The increase in impulse depends on the hypertrophy of the left ventricle; its diffuse nature is due to left ventricular lilation. In percussion, it was found that the area of the heart's hoarseness is enlarged to the left (Fig. 128), this hypertrophy is also associated with compensatory (tonogenic) dilatation of the left ventricle. systolic murmur is often heard in the ventricles of the heart) - this is the result of relative microvascular insufficiency. in addition, another amount of blood enters the aorta due to insufficient closure of the right aortic valves). Hypertrophy is the result of an increase in the load on the left ventricle due to the large amount of blood (Fig. 129). A specific auscultatory symptom of aortic regurgitation is a diastolic murmur at the heart. This noise is usually best heard in the second intercostal space on the right, except where the third rib cartilage attaches to the sternum (left), i.e. The reason for the noise during Kiastola is that the blood from the aorta partially returns to the left ventricle through a crack formed between the valves that are not well closed. The fifth point is heard well (earlier) at the Botkin Erb point (and the Botkin Erb point corresponds to the projection of the aortic valves). In aortic regurgitation, the diastolic murmur is usually not loud, and astasekin is attenuated (decrtsctndo). On auscultation, both tones are usually muted: the first is heard at the apex of the heart, because in the absence of aortic valves there is no period of closed valves, the second is heard at the base of the heart, the valves are defective, they do not close completely Ba ' in the absence of aortic valves, a presystolic murmur is heard at the apex of the heart (Flint murmur). This is because the strong blood flow from the aorta to the ventricle raises the proximal plate of

the mitral valve, resulting in a narrowing (temporarily) of the gap between the ventricle and the ventricle at the end of diastole. On X-ray examination, in aortic insufficiency, the angle between the lumbar vertebrae and the left contour of the heart shadow is very clear, as well as its enlargement to the left and roundness of the apex due to hypertrophy. Such a configuration is called an aortic configuration. The contours of the left ventricular shadow usually give deep pulsating movements during the transition from systole to diastole. All of the visible arteries are the aorta (which is known by the pulsation behind the chest), the carotid arteries ("carotid artery"), the carotid arteries, and others that vibrate sharply pulsating. The pulse of the carotid artery is characterized by a rapid and high rise and a similarly rapid and deep descent (pulsus keler is also called a jumper - r. Saliens). the pulse amplitude of arterial pressure is increased: systolic pressure is usually slightly elevated (or normal), and diastolic pressure is sharply decreased; as a result, the pulse pressure increases; it is possible to draw a conclusion about the magnitude of the defect in the valve depending on the degree of decrease in the maximum pressure and the degree of increase in the pulse pressure. This can be explained by the fact that in ventricular systole, which is hypertrophied in the absence of aortic valves and holds more blood than normal, it pushes blood forcefully into the aorta, which leads to a rapid rise in pressure in the arterial system; during diastole, some of the blood flows back from the aorta to the left ventricle, leading to a drop in diastolic pressure. given name). In addition, the size of the pupil changes rhythmically, this rest narrows, the rest expands (because there is a lot of blood flowing into the colored membrane of the eye). When the large arteries are heard with a phonendoscope, Durose's thoracic murmur is heard; the first part is systolic, normally audible when the blood vessels are pressed with a hearing aid, the second part, diastolic is detected only in the absence of aortic valves, and occurs as a result of blood returning to the left ventricle during diastole due to poor valve closure. audible In other arteries (for example, in the femoral artery) Traube's thoracic murmur is heard.

The most common capillary pulse (Quincke phenomenon) in aortic valve insufficiency is due to the above; It occurs when the patient's forehead is rubbed (the skin turns red at each pulse wave) or when the nail is pressed. The nail becomes red and rested. It is more accurate to say that the shashi lies down (the pressure in the capillaries does not differ much during systole and diastole). Lack of aortic valves does not lead to long-term cardiac decompensation due to the left ventricle's ability to adapt and hypertrophy, if decompensation begins, the patient's condition suddenly worsens Asthma attacks, ie shortness of breath, because the blood in the pulmonary arteries is periodically stagnant due to a decrease in the ability of the left heart to move blood from the small circulatory system to the large circulatory system. During asthma attacks, wheezing is heard, the boundaries of the lungs are slightly enlarged, and lung tumors are observed — shortness of breath begins with a large amount of foamy pink sputum, a large bubbly wheezing, and the patient wheezes. There are no signs of blood stasis in the large circulatory system (enlarged hepatic ascites) or in some patients there is aortic regurgitation (mitral regurgitation).

AORTA MOUTH STENOSIS

This stenosis (stenosis ostii aortae) is more common than previously described stenosis. It occurs as a result of rheumatic endocarditis, as well as mitral stenosis, or atherosclerosis, which affects the aorta and valves at the same time (valves are also known to be calcified). Stenosis of the aorta should never be distinguished from stenosis of the orifice valves. From stenosis it is necessary to distinguish other common changes in the aortic wall (inside), in which the inside of the aorta expands through the valve, which is pulled relative to the dilated aorta by itself. In narrowing of the aortic orifice, the left ventricle is forced to contract due to the difficulty of blood flow to the aorta, and there is hypertrophy. There is no compensatory dilatation (see concentric hypertrophy).

As a result of left ventricular hypertrophy, aortic impulse increases but it is not as diffuse as in aortic valve curvature. The hypertrophied left ventricle dilates after weakening, and the blood in it does not drain completely during systole. In pure stenosis (without aortic valve insufficiency), the heart does not enlarge much. On X-ray, the apex of the heart appears clearly rounded (Fig. 131). In the narrowing of the aortic orifice, the right side (in the space between the second ribs) hears a systomic murmur at the edge of the sternum. the noise is audible as the blood passes through the narrowed hole in the left ventricle during aortic systole. In aortic steponosis, the pulse is specific - it is small, the pulse rises slowly (pulsus parvus et tardus), the pulse is small and slowly rising due to the slow and small passage of blood from the ventricles to the aortic system. . In this type of powder, the compensation is maintained for a long time, and even if decompensation develops, it is of the left ventricular type.

Evaluation criteria №17

Independent work. Symptomatology of dilated cardiomyopathy
Homework. 18

Practical training №18

Hypertension. The concept of symptomatic hypertension. Principles of diagnosis and basic treatment. Ischemic heart disease. Angina and myocardial infarction. Principles of diagnosis and basic treatment. (Curation of patients. Medical history №1)

1. Practical training module.

Training time - 4 hours	Number of students: 10 to 12
Form of training	Practical training
Practical training plan	Symptomatology of hypertension. The concept of symptomatic hypertension (renal, endocrine, central, hemodynamic).

The name of the topic	**Ball**	**Baho**	**The level of knowledge of the student**
Symptomatology of aortic defects (aortic valve insufficiency and aortic stenosis). Circulatory insufficiency (compensated and decompensated condition). Vascular insufficiency.	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

The purpose of practical training:	To acquaint students with pathological conditions such as hypertension and symptomatic hypertension.
Teaching style	Inquiry. Demonstration of patients, interactive teaching methods, practical skills.

Form of teaching	In small subgroups.
Training equipment	Textbook, content of practical lessons, projector, computer.
Training mode	Methodically equipped auditorium.
Monitoring and evaluation	Oral control: questions and answers, tests, problem solving.

1.2. Technological card of practical training

Stages and timing of work.	Educator	Learners
Preparatory stage	46. Controls the cleanliness of the audience 47. Checks students' readiness for classes 48. Controls attendance	
1. Introductory stage of training (10 minutes)	1. Preparation of educational content on the topic. 2. Preparation of presentation slides for the introductory speech 3. Develop a list of references used in the study of science	
2nd stage (160 minutes)	1. Divide students into small groups and ask questions on the topic. 2. Uses display posters 3. Uses slides, multimedia 4. Conducts treatment 5. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate They listen and answer questions
Phase 1 (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes Takes notes

3. Assessment of students' theoretical knowledge:

A) Frontal method:

1. 1. Explain hypertension
2. Etiology of hypertension
3. Pathogenesis of hypertension
4. Classification of hypertension
5. Clinical manifestations
6. Describe a hypertensive crisis
7. Diagnosis of hypertension
8. ECG views
9. Complications of hypertension
10. The concept of symptomatic hypertension
11. Comparative diagnosis of symptomatic hypertension
12. Prevention of hypertension

Incident method

In clinical departments, the incident method is used to teach students to act in extreme situations. Students are given information about any situational issue. This issue needs to be resolved quickly (0.5-1.5 minutes).

This method speeds up students 'thinking and activates their activities in extreme situations. Student movement error should be 1.0.

Hypertension

Hypertension is a chronic disease, the main symptom of which is arterial hypertension. Elevated blood pressure is common as one of the symptoms of kidney disease; high blood pressure sometimes occurs in other diseases as well (see appropriate places). Therefore, symptomatic hypertension should be distinguished from disease-like hypertension. In hypertension, the kidneys are not initially damaged, which is an independent primary disease process (essential hypertension). Data on the etiology and pathogenesis of hypertension currently indicate that this disease is the result of impaired vascular regulation of the vascular apparatus.

The main cause of the disease of hypertension is the over-exertion of nerves and the experience of strong emotions, as well as the occurrence of severe or severe nerve trauma in marriage or other circumstances. Hypertension, sometimes exacerbated by direct coma and concussion from direct mental trauma, according to the GF LANG doctrine, the effects of hypertension on the vascular and cortical markers that move the arteries affect the cortex of the results under the influence of external factors in the cortex are formed persistent super-excited «stable» foci (according to I P. Pavlov). During surgery and experiments, the middle part of the hypothalamic area (midbrain) is directly involved. secretion causes a significant increase in blood pressure Hypertension is an additional factor in the systemic dysfunction of the endocrine glands At the same time the role of the ovaries is particularly different, because in women hypertension is usually found during menopause and beyond. then arterial pressure generally tends to rise In the pathogenesis of hypertension, the cortex of the adrenal glands by mouth from other endocrine glands plays an important role. Hypomia produces a hormone (vasopressin) that causes the arteries to spasm and the arteries to rise in pressure. This hormone apparently falls into the third ventricle of the brain and affects the center that drives the blood vessels in it. The adrenal glands produce a number of substances that raise blood pressure (adrenaline-arterenol, cortin). There is also a theory that hypertension is caused not by overactivity of pressor agents but by weakness of the depressor system, including failure of the depressor apparatus in the carotid artery with the aorta. In the development of hypertension, additional attention should be paid to the humoral factor associated with the kidneys. Goldblatt's experiments in dogs by partially occluding the renal arteries and slightly weakening the kidney (or kidneys) showed that blood pressure in dogs eventually rises; if blood taken from these dogs (especially blood from an ischemic kidney) is transfused into a normal dog, in this dog, too, the blood pressure rises {hence the pressor effect depends on the humoral effect). The idea that the kidneys, which are not well supplied with blood, produce a separate renin substance, thus arose; it was found that this enzyme, which acts on a specific protein in the blood, is a -2 globulin (hypertensinogen) and converts that protein into hypertensive; This hypertension causes a rise in blood pressure. The discovery of renin clearly explains the mechanism of rise in blood pressure in primary kidney disease. whether the changes that take place silently are also at the root of this disease, In this regard, the clinic has developed new methods for detecting renal bleeding (see next section). These methods have shown that blood flow from the kidneys in hypertension is indeed significantly reduced (but in the secondary order, i.e., as hypertension persists with narrowing of all capillaries, including renal arterioles, as a result of this hypertension). There is no denying that hereditary constitutional predisposition plays a role in the development of hypertension. It should be borne in mind that la can affect. In the development of hypertension, in any case, external influences play a leading role. The mechanism of rise in blood pressure in hypertension depends on the center; vasoconstrictor impulses predominate among the vascular impulses, the same impulses

lead to a constant increase in the tone of the arterial wall and narrowing of the arteries, mainly the capillaries. Pathological changes in hypertension, especially in the small arteries (arterioles), consisting mainly of secondary changes in the renal arterioles {see kidney disease chapter) Once upon a time, hypertension was thought to be the result of renal atherosclerosis, but hypertension persisted for a long time without any morphological changes in the kidneys. proven to be able to. Since hypertension is a very favorable condition for the development of atherosclerosis in general, the prevalence of atherosclerosis of the coronary arteries, aorta, and cerebral vessels is also understandable when people who die of hypertension rupture. The only symptom that can be attributed to hypertension in the pathological period is hypertrophy of the left ventricle of the heart, part of which is hyperplasia of the contractile elements in the vascular wall. The clinical picture of early-stage hypertension is headache, dizziness, lightheadedness, headaches, sleep disturbances, palpitations, tingling pain in the heart area, ringing in the ears, sometimes consists of a number of subjective symptoms, such as blurred vision, and so on. Patients with hypertension have a different appearance: in some cases the skin color is pinkish-red, which appears to be filled with blood (red hypertension), in others there is a discharge. rinadi (reading hypertension); the reason for this difference is that in the first case only the arterioles are narrowed, in the second case the small veins with the capillaries are narrowed.

When blood pressure is measured, not only systolic pressure but also diastolic pressure is elevated. Systolic pressure 140 mm from, while diastolic pressure 90 mmif more, the systolic pressure can be considered elevated. At the time of the first measurement, the amount of pressure is slightly higher, and at the second measurement, it is slightly lower (due to the vasomotor reaction that occurs in response to the cuff shoulder contraction). In patients with hypertension, blood pressure levels generally fluctuate throughout the day and to a greater extent from day to day. Uncertainty in blood pressure occurs in the less recent stages of hypertension, and in severe cases of hypertension, the pressure remains constant (this means that changes in the regulation of blood pressure are irreversible, as well as in particular, it is a sign that renal arteriolo sclerosis events have been added). In the anterior part of the heart there are signs that only the left ventricle is hypertrophied (the heartbeat intensifies, the apex of the heart pulls round), a second tone accent is heard in the aorta; the electrocardiogram reveals the predominance of the left ventricle. Later left ventricular function decreases, symptoms appear in the form of asthma attacks, and wheezing associated with blood clots in the lungs; the heart is dilated, on the electrocardiogram - in the first and second methods it remains negative, and the S-T line falls low in the same way. The pulse is tense, posture-type, the arteries appear curved (elongated), and the aorta is elongated on radiography; enlargement of the aortic opening in the second curved position The aortic arch rises, the heart gives the aortic configuration - the left ventricle becomes enlarged and hypertrophied. The arteries of the retina (arteries that can be detected with the help of a mirror-ophthalmoscope, which allows to observe the fundus) appear narrow, curved, double-contoured; the veins are dilated; in more severe forms of the disease, hemorrhage is found.

Hypertension is characterized by a tendency for the arteries to contract slightly more strongly temporarily; these spasms are: I) in the coronary arteries (this condition causes a decrease in breast disease); 2) presence in the cerebral vessels (this condition leads to dizziness, which leads to migraine, temporary loss of speech, limb diet); 3) may be in the veins of the limbs (this is characterized by occasional lameness). Such crises are also seen in other vascular areas. The course of hypertension leads to an increase in heart failure, circulatory disorders in the brain or the addition of kidney disease. High blood pressure leads to mechanical fatigue of the heart, as well as coronary heart disease (especially when coronary atherosclerosis is added to hypertension}. Circulatory disorders in the brain, in addition to the temporary changes mentioned above, cause bleeding into

the brain. spasm, in which the nutrition of the narrowed vascular wall is disrupted and the blood vessels begin to carry blood to the brain. Kidney damage (renal arteriosclerosis) leads to kidney failure. Hypertension is a slow-growing disease that progresses over the years. However, there are also known cases of dangerous hypertension that occur rapidly (mostly in young people). In these cases, especially high blood pressure, however, it is characterized by a constant elevation, a slight change in the kidneys, a person being overly prone to changes in the brain, a large change in the fundus of the eye, and a rapid loss of vision. Usually this form of the disease lasts 1 - 2 years. It is not clear why the disease progresses to such an uncomfortable way. Some people think that it is about a specific disease that is different from normal hypertension, but this idea is denied. In the transition of simple forms of hypertension, three periods can be distinguished, which can be divided into two phases, respectively. The first period: Phase A - the pregipertonic phase (when there are certain "same effects", for example, a tendency to increase blood pressure in emotional effects); Phase B is the transient or transient phase (periodic rise in pressure and remission). Second stage: Phase A - labile, unstable phase (blood pressure is usually elevated, but can vary greatly and decrease significantly); Phase B is a stable phase (blood pressure is constantly rising).

Significant organic-sclerotic changes in the heart, kidneys and cerebral vessels are characteristic of the period (Phase A - compensated phase, in which the ability to work is reduced, but remains: Phase B - decompensated phase, loss of ability to work). In different diseases, the heart, kidneys and brain are not damaged in the same way, so in the course of the disease we can talk about the variant of heart, kidney and brain. One of the best substances in this respect is bromine. 5% solution of bromine in the pressure is prescribed 3-4 tablespoons per day for 3-4 weeks; It is also helpful to prescribe luminal or chloral hydrate instead of bromine if treatment is repeated later.0.1 g from) can not be absorbed by others, but when treated with luminal (0, 05 gfrom 3 times a day) feels good. Apparently, this difference is due to the fact that in some patients it is mainly the cortex that is over-excited, while in others the subcortex is over-excited. Recently, sleep therapy has been used. There are two types of sleep therapy: either natural sleep is prolonged to 12-14 hours (for which patients 3-4 times0.1 gfrom nembotal or barbamil) or to sleep and meet natural needs, with regular breaks of two to three hours for three weeks. Divide large doses of sleeping pills to reveal the latter option (e.g.2 gHowever, it is necessary to prolong the normal sleep, because long sleep, which is caused by drugs, is sometimes difficult and in terms of therapeutic effect. does not give good results. Sleep therapy is based on Pavlov’s theory of protective braking.

Other means of treating hypertension should include magnesium sulfate; its 25 percent solution is administered intramuscularly or intravenously in 10 ml daily for 10-15 days. Treatment with magnesium lowers blood pressure and improves the patient's condition; when blood circulation in the brain is slightly impaired, magnesium treatment is particularly effective in patients with hypertension (when changes in the fundus are now occurring). In many cases, rhodium compounds (thiocyanates) help and lower blood pressure One of the substances that works well, especially in hypertensive crises, is the recently synthesized dibazol, which reduces the susceptibility to angiospasms, lowers blood pressure and usually stops the onset of seizures.0.02 gor, preferably, intramuscularly (1 percent solution of 3 cm3 twice a day). hexamethane and pentamine are among them. These are prescribed for intramuscular administration of 40-150 mg per day, the course of treatment should be long (1-2 months), then repeated. Symptomatic drugs work best during Phase B phase or Phase A phase. Sometimes they have side effects. Therefore, they need to be prescribed in a hospital setting. An adrenolytic drug called redergak, which is given parenterally in 1-3 ampoules per day for 3-4 weeks, also has an effect.

In certain cases, such as hypertension, which can be reduced in women due to menopause, hormonal drugs - ovarian hormones give good results, while two forms or phases have to be

distinguished: body hormone (progesterone drug) is applied and the second is a phase that continues with a decrease in the amount of folliculin in the blood, using folliculin or sinestrol (10,000 units subcutaneously every day for two weeks)

Surgical treatment (cutting of the abdominal nerves on both sides) is intended to reduce sympathetic nerve activity, as well as to cut the vasoconstrictive nerve pathways leading to the kidneys. Surgery leads to a sharp decrease in blood pressure in patients with hypertension, while the pressure remains low for months, sometimes years. Prevention of hypertension is one of the most important tasks of the health care system. The main conditions of prophylaxis are: medical examination of certain groups of the population and early detection of hypertension (this can be done only when the wrist is periodically measured in the wrist mass).

The main task of prevention is to eliminate or reduce the influence of factors that lead to neurosis-type disorders of higher nervous activity. In this case, it is important to ensure adequate sleep, proper organization of work and rest, to avoid overexertion of the nervous system. Establishment of prophylactics (ie sanatorium-type hospitals) in enterprises is an effective measure, workers prone to hypertension visit such prophylactics from time to time and are in a special mode without leaving the production.

ISHEMIC HEART DISEASE

Chest pain (angina pectoris) is defined as chest pain as a result of a sudden decrease in blood flow to a section of the heart muscle or a temporary loss of blood supply to the heart (ischemia of the heart muscle).

Coronary atherosclerosis is the most common cause of myocardial infarction, however. 1) narrowing of the coronary arteries with scarring of the mouth in traumatic aortitis (see below); 2) changes in the perforation of the coronary arteries in coronary heart disease and myocarditis (due to rheumatism, trauma and other diseases) associated with infection; 3) coronary artery spasms caused by nerve (e.g., hypertension) and damage (nicotine, lead) The reason why we describe chest tightness in the chapter on atherosclerosis is that in most cases atherosclerosis leads to chest tightness There are more typical features of chest tightness syndrome. When we say chest tightness, we do not mean shortness of breath in the first place. not useful), but we understand that it only hurts. Usually the pain is caught during strenuous physical activity, especially when walking on the street. The patient is forced to stop for a while, after walking, because of the pain; when stopped, the pain subsides, the patient begins to walk again, then the pain reappears, and so on. Characteristically, the pain only occurs when walking on the street, whereas the patient walks comfortably in a warm building; pain freezes in winter, often in the cold, when walking against the wind Cold freezing can cause pain in other conditions as well (e.g. when undressing and lying in a cold position). The pain often subsides after a meal, in which the diaphragm is elevated and the transverse position of the heart, especially the passage of some blood into the abdominal cavity, leads to a decrease in the blood flow from the coronary arteries, with the onset of pain There is a strong connection between nervous mental tensions, excitement, emotions.

The most severe attack of chest tightness occurs at night: the patient wakes up in pain and is forced to sit still or not to move while holding the bed or table, Chest tightness the pain-type pain sensation occurs mostly in the chest area (pain behind the dream), generally in the center of the chest; Occasionally there is less pain in the heart area. Pain is often in the form of crushing, squeezing, irritability, sometimes in the form of severe stabbing pain. Finally, an important feature for the diagnosis of angina pectoris is their transition to the corresponding body parts, usually the left shoulder, left, sometimes the left half of the attachment to the neck (irradiation); at the same

time the pain may spread to the right side of the body. Anginous pain can occasionally spread to the upper abdomen (angina pseudoabdominalis). In chest tightness, the transfer of pain to the relevant parts of the body is characterized by the fact that the skin becomes very marked in certain areas - Ged - Toxic zones. (Figures 137 and 138). The overexposure of these zones to pain sensations is the result of the effect of the viscerosensory reflex on the centrifugal nerves of the above-mentioned segments coming from the heart and passing to the centrifugal (sensory) nerves of the spinal cord. The pain that occurs during physically necessary work is partly due to the fact that in such conditions the heart requires more blood to flow from the coronary pathway for its work; obviously When the coronary tract narrows due to atherosclerosis, the krn that comes during physical activity does not meet the needs of the myocardium and as a result suddenly becomes deficient, which leads to changes in the myocardium and pain (occurs during work in oxygen-deficient conditions and tends to the center accumulation of metabolic substances that alter nerve endings). Pain at night, pain when caught in excitement, and the like should be understood as a reaction of the nervous system. accumulation of metabolic substances that alter the nerve endings tending to the center). Pain at night, pain when caught in excitement, and the like should be understood as a reaction of the nervous system. accumulation of metabolic substances that change the nerve endings toward the center). Pain at night, pain when caught in excitement, and the like should be understood as a reaction of the nervous system.

There is no doubt that the progression of chest tightness is closely linked to the predominance of innervation effects, including vasoconstrictive reactions. From this perspective, it is understandable why angina pectoris is so common in people who are stressed outside the mental realm. The vasoconstrictor nerve of the coronary arteries is a reciprocal, stray nerve against the peripheral arteries, so overexposure of this nerve predisposes to angina pectoris (in fact, nocturnal pain is also associated with this). because the brake, which passes from the cortex of the large hemispheres to the parasympathetic system, is released during the action). It is clear from this that the pain (cold skin reflex) occurs when a cold strikes. It should be noted that vascular stimulation reactions can lead to seizures without anatomical changes. always appears at the same time, etc. - gal goes on about the recurrence of pain). This confirms the importance of impulses from the cerebral cortex in the development of these pains (and when the coronary arteries lying on the ground begin to constrict). zan takes the form of a conditioned reflex (only when certain moments act together and always appear at the same time, etc. - gal goes on about the recurrence of pain). This confirms the importance of impulses from the cerebral cortex in the development of these pains (and when the coronary arteries lying on the ground begin to constrict). zan takes the form of a conditioned reflex (only when certain moments act together and always appear at the same time, etc. - gal goes on about the recurrence of pain). This confirms the importance of impulses from the cerebral cortex in the development of these pains (and when the coronary arteries lying on the ground begin to constrict).

A direct cause of chest tightness is a short-term narrowing of the coronary arteries in a functional order, i.e., spasm. This is why hypertension is also very common in hypertension. It is true that chest tightness caused by vasomotor reactions (in the absence of anatomical changes in the coronary arteries) is a separate form, (atherosclerotic "true" breast cancer was called "fake breast cancer"), but it has now been introduced. We can talk about the "angioneurotic" form of chest tightness, and in atherosclerosis, the narrowing of the coronary arteries usually plays a role. coronary arteries with atherosclerotic changes are particularly prone to spasmodic reactions and often narrow under the influence of dilating them, which under normal conditions do not affect or affect the coronary arteries. paradoxical »,« distinct »character is evident from this (there is also the fact that it is tested in the laboratory of the famous pharmacologist NP Kravkov). Apparently, this

feature is unique to coronary arteries that have undergone atherosclerotic changes in the early stages: the elastic membrane in such arteries; becomes hyperplasia, in the next period when the vessel walls remain thick and elongated, it seems that the nerve impulses can no longer narrow them, therefore, in the development of breast cancer during this period, as mentioned, plays a role in the inconsistency between the need for the heart muscle and the time coming through the narrowed arteries. “Chest tightness in different cases is the result of a combination of anatomical and angioneurotic factors that are similar in appearance. If the angioneurotic factor is known to be rosy, the coronary arteries of the heart can become constricted even when the coronary arteries are completely left. On the other hand, if there is a slight anatomical change in them, the insignificant propensity of the nervous system that controls the coronary circulation to pathological reactions is sufficient to catch raed chest tightness ”(GF Lang).

Electrocardiogram - shows that the T line is pushed below the isoelectric level in the first and second methods, mainly during the holding time. The electrocardiogram sometimes shows similar changes even when there is no pain (Fig. 139); these are due to the presence of various flour changes in myocardial supply due to coronary artery sclerosis; when they are in pain, they are more pronounced. Sometimes the electrocardiogram shows such changes only after physical exertion. The course and prognosis of chest tightness depends on the degree of atherosclerotic changes in the coronary arteries. In the roles in which angioneurotic moments play a major role, chest tightness is much milder and the pain can be completely gone.

An attack of chest tightness can be fatal. According to one clinician, chest tightness on its own can lead to only two events: pain or death, meaning that no routine examination can detect other manifestations of the disease. Treatment of chest tightness involves the use of medications and preventive measures while the patient is in labor. The best drug to stop the pain of angina is a one percent solution of nitroglycerin in alcohol (with the onset of the disease, it is better to instill a few drops directly into the tongue). Nitroglycerin is rapidly absorbed and dilates coronary arteries, including coronary arteries. patients who taste it while walking, in particular, should carry a bottle filled with nitroglycerin and drink it in drops several times a day. Amylnitrite also has a good effect, its ampoule is wrapped in a tissue and smelled. Other drugs used during the onset of the disease, such as: Sodium nitrosum (one tablespoon of one percent solution three times a day), euphyllin (Eurphyllini 0 , Tablets or suppositories of 2-0.3 g are used three times a day) has a slightly slower effect. it is necessary to keep the patient calm and warm while standing (at night when there is pain, a chest warmer is placed or the road and feet are kept in hot water). For severe pain that is not suppressed by nitroglycerin, 1 ml of a one percent solution of morphine or pantopone should be injected. To prevent the onset of the disease, it is recommended to regularly take drugs that contain purine bases and allow dilation of coronary arteries (in particular, diuritin tablets of 0.5-1 g three times a day after meals); «Bromine preparations, luminal gauze are used to calm the erv system. To prevent chest tightness, it is necessary to recommend changes in living conditions (primarily neuropsychologically rest as much as possible), rest, ordering dietary foods, smoking and drinking. To prevent the onset of the disease, it is recommended to regularly take drugs that contain purine bases and allow dilation of coronary arteries (in particular, diuretin tablets of 0.5-1 g three times a day after meals); «Bromine preparations, luminal gauze are used to calm the erv system. To prevent chest tightness, it is necessary to recommend changes in living conditions (primarily neuropsychologically rest as much as possible), rest, ordering dietary foods, smoking and drinking. To prevent the onset of the disease, it is recommended to regularly take drugs that contain purine bases and allow dilation of coronary arteries (in particular, diuritin tablets of 0.5-1 g three times a day after meals); «Bromine preparations, luminal gauze are used to calm the erv system. To prevent chest tightness, it is necessary to recommend changes in living

conditions (primarily neuropsychologically rest as much as possible), rest, ordering dietary foods, smoking and drinking. «Bromine preparations, luminal gauze are used to calm the erv system. To prevent chest tightness, it is necessary to recommend changes in living conditions (primarily neuropsychologically rest as much as possible), rest, ordering dietary foods, smoking and drinking. «Bromine preparations, luminal gauze are used to calm the erv system. To prevent chest tightness, it is necessary to recommend changes in living conditions (primarily neuropsychologically rest as much as possible), rest, ordering dietary foods, smoking and drinking.

Myocardial infarction

Myocardial infarction (infarctus myocardii) is the result of thrombosis of one of the coronary arteries of the heart. Coronary artery thrombosis, usually caused by atherosclerosis, was first described by Russian clinicians VM Kernig of the Obukhov Hospital in St. Petersburg and NP Obraztsov and VP Strazhesko. that is, as atherosclerotic plaques, which are often ulcerated, rise in the perforation, the blood flow slows in a narrowed part of it, fibrin begins to sink, and a suture is formed that closes the perforation. Prolonged narrowing of the artery also contributes to thrombosis. Pathologically, the corresponding part of the myocardium, which is fed by a clogged artery, suddenly weakens as a result of thrombosis, undergoes ischemia, and then dies — necrosis. The necrotic part is separated from healthy parts of the heart muscle by a zone of reactive inflammation. in some cases, the heart wall may bulge and rupture into a thin aneurysm. In most cases, they gradually absorb astasecin and are replaced by scar tissue. also contributes to the disease process.

In coronary artery thrombosis, myocardial infarction is facilitated by the fact that these arteries form a mutual anastomosis with their small branches. Therefore, when the coronary artery hole closes quickly, it is usually not possible for blood to pass through those small aneurysms. Often the left coronary artery, especially its inferior branch, is injured, resulting in a heart attack occupying the anterior wall of the left and right ventricles near the apex of the heart, the anterior part of the barrier between the apex of the heart and the ventricle Ramis circumflexus a. Closure of the hole of the coronarie cordis sinistrae leads to infarction of the posterior wall of the left ventricle near the base of the heart, thrombosis of the right coronary artery leads to infarction in the posterior part of the barrier with the posterior wall of the ventricle and damage to the GIS. The clinical manifestations of myocardial infarction are usually more pronounced. Any severe thoracic stenosis, that is, a temporary blockage or narrowing of the coronary artery, is caused by blood flowing through that artery. can be thought to cause dystrophic and necrotic events (but changes that occur in the form of small foci) in the myocardial portion of the lesion. One of the main symptoms of a myocardial infarction is a sudden onset of pain in the type of chest tightness. The difference between this pain and chest tightness is that it lasts for several hours to even a day or two (pauses), which is called status anginosus. Often the pain is exacerbated and panic of death ensues. Pain often occurs at night or near a trip Pain usually occurs in the lower part of the chest, in the middle, sometimes on the left The second typical symptom of a heart attack occurs suddenly {circulatory failure is a phenomenon sometimes, mainly due to heart failure, ba ' The first type of changes that occur due to vascular insufficiency are in the type of cardiac asthma. There is a severe asthmatic status, which occurs as a result of a sudden loss of strength in the left ventricle. Sometimes the appearance of a heart attack begins with a complete suffocation (instead of pain). dilation of the outgoing area is observed dullness of heart tones, tachycardia is observed, heart rhythm and conduction are disturbed when the conduction system is damaged, infarction in the right heart continues with sudden swelling of the liver causes cold sweats, decreased heart rate, rapid drop in systolic blood pressure. zan continues with a state of infertility (shock), which is partly related to the sensation of severe pain. The third type of symptoms seen in myocardial infarction is related to

the absorption of products resulting from the breakdown of muscle elements and the reactive changes that occur in the heart. First of all, from 2 to 3 days after thrombosis, for several days, the body temperature rises to 38-38.5 °, the acceleration of the erythrocyte sedimentation rate, the occurrence of n e ytr of il l e ecytosis (Fig. 141).

In myocardial infarction, in some cases, the pericardial murmur is heard for 2-3 days, which is a sign of the above-mentioned PERICARDITIS EPISTENOCARDICA. In severe cases, due to the development of lateral endocarditis and bleeding of thromboembolic material, infarcts in various other organs (kidneys, lungs) also occur, complicating the appearance of the disease. Electrocardiographic examination is of great importance for the diagnosis of myocardial infarction. This method allows not only to diagnose a heart attack in uncertain cases, but also to determine its location. the downward knee of the zgaradi bowl is like a bow on a high level without falling to the zero line,

Changes occur, which are characterized by a sharp decrease in the R tooth or the appearance of a deep Q tooth, and sometimes the formation of a common deep negative tooth, ie a tooth called Q-S (141, Figures 142 and 143). If these changes are detected on the electrocardiogram by the method of G` and G`G`, we are talking about the infarction of the anterior wall of the heart, if it is found by the method of G`G` and G`G`G`, the infarction of the posterior wall is 'will be growing.

Acute focal changes continue with the discordant of the teeth obtained by the methods G` and G`G`G`, that is, the teeth T obtained by the method G` and the interval S — T obtained by the third method T and S - T is opposite in direction.

New chest electrocardiogram methods allow to more accurately identify and locate the anterior wall infarction of the heart. For example, in the IV chest method, the changes in the apex of the heart are more clearly reflected. Conductivity disturbances usually persist with infarction of the posterior wall of the heart. In recurrent and prolonged infarctions, changes in electrocardiogram teeth obtained in different ways may overlap with the previous, old changes and make the characteristic symptoms of infarction unnoticeable. The pathological electrocardiogram may return to normal after some time, but often persists for a long time and indicates a history of myocardial infarction. The course and prognosis of myocardial infarction: 1) the magnitude of the changes in the heart; 2) the condition of other arteries in the heart and the development of collateral circulation; 3) depends on the degree of cardiovascular insufficiency. Mortality is particularly high in the first week; most patients die within a few years from more severe recurrent infarctions, in very rare cases the ability to work is restored after a heart attack, and patients may not feel the pain of angina (atherosclerotic narrowing) due to failure of the remaining coronary arteries). The appearance of a cardiac aneurysm may occur due to myocardial infarction. An aneurysm usually occurs in the left heart It can be acute or chronic. For a left ventricular aneurysm, the heart expands sharply to the left, in the form of a sac in the area of the heart or along the left edge is characterized by bumps. In the area of the aneurysm, the chest wall is between the ribs, sometimes worm-shaped, with a faint pulsation. important; this method allows, on the one hand, to show that the contour of the heart shadow is bulging like a sac, and, on the other hand (using X-ray chemistry) - to detect a violation of heart contractions in the relevant area. Acute cardiac aneurysm occurs 1-2 weeks after a heart attack and often leads to rupture of the heart and tamponade. In the area of the aneurysm, the chest wall is between the ribs, sometimes worm-shaped, with a faint pulsation. important; this method allows, on the one hand, to show that the contour of the heart shadow is bulging like a sac, and, on the other hand (using X-ray chemistry) - to determine whether the heart contractions are distorted in the relevant area. Acute cardiac aneurysm occurs 1-2 weeks after a heart attack and often leads to rupture of the heart and tamponade. In the area of the aneurysm, the chest wall is between the ribs, sometimes worm-shaped, with a faint pulsation. important; this method allows,

on the one hand, to show that the contour of the heart shadow is bulging like a sac, and, on the other hand (using X-ray chemistry) - to detect a violation of heart contractions in the relevant area. Acute cardiac aneurysm occurs 1-2 weeks after a heart attack and often leads to rupture of the heart and tamponade. gives a weak pulsation When the spheres are heard, a sound ("chirping"), often resembling a rough systolic murmur, is detected. X-ray method is of great importance for the diagnosis of the disease; this method allows, on the one hand, to show that the contour of the heart shadow is bulging like a sac, and, on the other hand (using X-ray chemistry) - to detect a violation of heart contractions in the relevant area. Acute cardiac aneurysm occurs 1-2 weeks after a heart attack and often leads to rupture of the heart and tamponade. gives a weak pulsation When the spheres are heard, a sound ("chirping"), often resembling a rough systolic murmur, is detected. X-ray method is of great importance for the diagnosis of the disease; this method allows, on the one hand, to show that the contour of the heart shadow is bulging like a sac, and, on the other hand (using X-ray chemistry) - to detect a violation of heart contractions in the relevant area. Acute cardiac aneurysm occurs 1-2 weeks after a heart attack and often leads to rupture of the heart and tamponade. on the other hand (using X-ray chemistry) - allows you to detect abnormal heart contractions in the relevant area. Acute cardiac aneurysm occurs 1-2 weeks after a heart attack and often leads to rupture of the heart and tamponade. on the other hand (using X-ray chemistry) - allows you to detect abnormal heart contractions in the relevant area. Acute cardiac aneurysm occurs 1-2 weeks after a heart attack and often leads to rupture of the heart and tamponade.

Chronic aneurysm occurs one to two years after a heart attack and leads to long-term heart failure (such an aneurysm is actually one of the forms of focal cardiosclerosis. usually lasts 1-2 months), coronary artery dilators (diuretics, theobromine, euphyllin), drugs that improve general circulation (caffeine, camphor, corazole), intravenous glucose to improve myocardial nutrition are recommended. nitroglycerin does not blind the pains, and with morphine or pantopone they are almost not suppressed.Much attention is paid to substances that reduce blood clotting and thrombus formation (heparin, dicoumarin).

Evaluation criteria №19

The name of the topic	**Ball**	**Baho**	**The level of knowledge of the student**
The concept of YU.IK. Symptomatology of angina. ECG diagnostics. Stopping Angina Stroke Myocardial Symptomatology of Infarction.	86-100	A'lo	**Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	71-85	Good	**Can observe independently, apply in practice, explain the essence, know, tell, have imagination.**
	55-70	It's snowing	**Explains the essence, knows, can tell, has imagination.**
	0-54	Bloodless	**He has no imagination, he does not know.**

Independent work. Ischemic heart disease

Technological map of practical training

Practical training №1

Introduction. History of the development of internal medicine. The science of propaedeutics of internal medicine. Purpose, tasks. Fundamentals of medical deontology. Counseling skills.

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	Introduction. History of the development of internal medicine. The science of propaedeutics of internal medicine. Purpose, tasks. Fundamentals of medical deontology. Learn counseling skills.
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental examination
Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups
Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory stage (5 minutes)	1. The cleanliness of the auditorium is controlled 2. Student attendance is checked	Be prepared to hear

	3. To check the readiness of students for lessons	
The stage of the learning process (10 minutes)	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	Students are prepared
Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate listen and answer questions
Clinical training (80 minutes)	1. Patients are curated together with the teacher 2. Students are assigned to each patient and they curate independently.	Students record the results of patient analysis and curation results in a notebook
The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Practical training №2

General examination of patients: general condition, consciousness, condition, body composition. Examination of the patient on body parts: head, face, neck, skin, bones, muscles, joints.

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10

Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	General examination of patients: general condition, consciousness, condition, body composition. Examination of the patient by body parts: examination of the head, face, neck, skin, bones, muscles and joints
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental examination
Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups
Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory stage (5 minutes)	1. The cleanliness of the auditorium is controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	Be prepared to hear
The stage of the learning process	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer	Students are prepared

(10 minutes)	3. Putting multimedia, videos 4. Develop a list of references used in the study of science	
Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate listen and answer questions
Clinical training (80 minutes)	1. Patients are curated together with the teacher 2. Students are assigned to each patient and they curate independently.	Students record the results of patient analysis and curation results in a notebook
The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Practical training №3

Anthropometry. Thermometry. General concept of laboratory and instrumental examinations. The importance of modern laboratory and instrumental methods of examination.

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	Anthropometry. Thermometry. General concept

	of laboratory and instrumental examinations. The importance of modern laboratory and instrumental methods of examination.
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental examination
Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups
Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory stage (5 minutes)	1. The cleanliness of the auditorium is controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	Be prepared to hear
The stage of the learning process (10 minutes)	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	Students are prepared
Theoretical	1. Students are divided into small groups and	They are divided into

training (55 minutes)	given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	small groups They watch participate listen and answer questions
Clinical training (80 minutes)	1. Patients are curated together with the teacher 2. Students are assigned to each patient and they curate independently.	Students record the results of patient analysis and curation results in a notebook
The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Practical training №4

Methods of clinical examination of organs of the respiratory system. interrogation, general examination, examination of the chest. Chest palpation, purpose and functions, performance, diagnostic value.

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	Methods of clinical examination of respiratory organs. interrogation, general examination, examination of the chest. Study of chest palpation, purpose and functions, performance, diagnostic significance.
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental

	examination
Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups
Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory stage (5 minutes)	1. The cleanliness of the auditorium is controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	Be prepared to hear
The stage of the learning process (10 minutes)	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	Students are prepared
Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used	They are divided into small groups They watch participate listen and answer

	4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	questions
Clinical training (80 minutes)	1. Patients are curated together with the teacher 2. Students are assigned to each patient and they curate independently.	Students record the results of patient analysis and curation results in a notebook
The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Practical training №5

Methods of physical examination of the respiratory system: lung percussion, rules and execution. Comparative percussion. Features of topographic percussion, percussion sound and lung boundaries in norm and pathology.

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	Methods of physical examination of the respiratory system: lung percussion, rules and execution. Comparative percussion. To study the features of topographic percussion, percussion sound and lung boundaries in norm and pathology.
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental examination
Teaching style	Inquiry, performance of practical skills, curation

	of patients
Form of teaching	Divide into small groups
Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory stage (5 minutes)	1. The cleanliness of the auditorium is controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	Be prepared to hear
The stage of the learning process (10 minutes)	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	Students are prepared
Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate listen and answer questions

Clinical training (80 minutes)	1. Patients are curated together with the teacher 2. Students are assigned to each patient and they curate independently.	Students record the results of patient analysis and curation results in a notebook
The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Practical training №6

Pulmonary auscultation. Techniques and rules. Primary (bronchial and vesicular) and additional (wheezing, crepitation, pleural friction noise) breathing noises. Modern inspection methods. Methods of radiological examination: bronchoscopy, bronchography, tomography. Methods of functional examination of the lungs: spirometry, spirography, pneumotoxometry. Examination of sputum.

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	Pulmonary auscultation. Techniques and rules. Primary (bronchial and vesicular) and additional (wheezing, crepitation, pleural friction noise) breathing noises. Modern inspection methods. Methods of radiological examination: bronchoscopy, bronchography, tomography. Methods of functional examination of the lungs: spirometry, spirography, pneumotoxometry. Learning to check sputum.
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental examination

Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups
Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory stage (5 minutes)	1. The cleanliness of the auditorium is controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	Be prepared to hear
The stage of the learning process (10 minutes)	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	Students are prepared
Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant	They are divided into small groups They watch participate listen and answer questions

	students	
Clinical training (80 minutes)	1. Patients are curated together with the teacher 2. Students are assigned to each patient and they curate independently.	Students record the results of patient analysis and curation results in a notebook
The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Practical training №7

Lung tissue condensation syndrome (in the example of crouposis and focal pneumonia). Pulmonary cavity syndrome (in the case of pulmonary abscess and bronchiectasis). Diagnosis, etiology and pathogenesis. Basic principles of treatment

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	Lung tissue condensation syndrome (in the example of crouposis and focal pneumonia). Pulmonary cavity syndrome (in the case of pulmonary abscess and bronchiectasis). Diagnosis, etiology and pathogenesis. Study the basic principles of treatment
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental examination
Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups

Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory stage (5 minutes)	1. The cleanliness of the auditorium is controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	Be prepared to hear
The stage of the learning process (10 minutes)	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	Students are prepared
Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate listen and answer questions
Clinical	1. Patients are curated together with the teacher	Students record the

training (80 minutes)	2. Students are assigned to each patient and they curate independently.	results of patient analysis and curation results in a notebook
The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Practical training №8

Impaired bronchial permeability syndrome. (in the example of acute and chronic bronchitis, obstructive and nonobstructive bronchitis). Flatulence syndrome (in the case of bronchial asthma, pulmonary emphysema). Examination of obstructive pulmonary disease. Diagnosis, etiology and pathogenesis. Basic principles of treatment

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	Impaired bronchial permeability syndrome. (in the example of acute and chronic bronchitis, obstructive and nonobstructive bronchitis). Flatulence syndrome (in the case of bronchial asthma, pulmonary emphysema). Examination of obstructive pulmonary disease. Diagnosis, etiology and pathogenesis. Study the basic principles of treatment
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental examination
Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups

Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory stage (5 minutes)	1. The cleanliness of the auditorium is controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	Be prepared to hear
The stage of the learning process (10 minutes)	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	Students are prepared
Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate listen and answer questions
Clinical	1. Patients are curated together with the teacher	Students record the

training (80 minutes)	2. Students are assigned to each patient and they curate independently.	results of patient analysis and curation results in a notebook
The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Practical training №9

Syndrome of air and fluid accumulation in the pleural cavity (pleurisy, hydrothorax, pneumothorax). Respiratory failure, etiology, pathogenesis, diagnosis and basic principles of treatment.

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	Syndrome of air and fluid accumulation in the pleural cavity (pleurisy, hydrothorax, pneumothorax). Respiratory failure, etiology, pathogenesis, diagnosis and basic principles of treatment.
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental examination
Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups
Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and

	tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory stage (5 minutes)	1. The cleanliness of the auditorium is controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	Be prepared to hear
The stage of the learning process (10 minutes)	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	Students are prepared
Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate listen and answer questions
Clinical training (80 minutes)	1. Patients are curated together with the teacher 2. Students are assigned to each patient and they curate independently.	Students record the results of patient analysis and curation results in a notebook
The final stage	1. Concludes	He listens

(10 minutes)	2. Provides independent work 3. Gives homework	Takes notes

Practical training №10

Cardiovascular system. Control methods. Inquiry. Examination (general condition, skin color, swelling, examination of the neck). Diagnostic value. Examination of the heart area and peripheral vascular area. Palpation and diagnostic value of the heart area.

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	Diagnostic value. Examination of the heart area and peripheral vascular area. To study the palpation and diagnostic significance of the heart area
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental examination
Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups
Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory stage (5 minutes)	1. The cleanliness of the auditorium is controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	Be prepared to hear
The stage of the learning process (10 minutes)	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	Students are prepared
Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate listen and answer questions
Clinical training (80 minutes)	1. Patients are curated together with the teacher 2. Students are assigned to each patient and they curate independently.	Students record the results of patient analysis and curation results in a notebook
The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Practical training №11

Cardiac percussion. Determining the limit of relative and absolute suffocation in a healthy person and in pathology. Cardiac configuration and its definition in pathology. Diagnostic value. X-ray analysis.

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	Cardiac percussion. Determining the limit of relative and absolute suffocation in a healthy person and in pathology. Cardiac configuration and its definition in pathology. Diagnostic value. Study of radiographic analysis
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental examination
Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups
Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory	1. The cleanliness of the auditorium is	Be prepared to hear

stage (5 minutes)	controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	
The stage of the learning process (10 minutes)	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	Students are prepared
Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate listen and answer questions
Clinical training (80 minutes)	1. Patients are curated together with the teacher 2. Students are assigned to each patient and they curate independently.	Students record the results of patient analysis and curation results in a notebook
The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Practical training №12

Cardiac auscultation rules and hearing points. Heart tones. Changes in tone (increase and decrease) in cardiovascular pathology. Doubling and splitting of tones. Diagnostic value. Additional tones in cardiovascular pathology.

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	Cardiac auscultation rules and hearing points. Heart tones. Changes in tone (increase and decrease) in cardiovascular pathology. Doubling and splitting of tones. Diagnostic value. Study of additional tones in cardiovascular pathology
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental examination
Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups
Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory stage (5 minutes)	1. The cleanliness of the auditorium is controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	Be prepared to hear
The stage of the	1. Prepare on the topic 2. Preparation of presentation slides for the	Students are prepared

learning process (10 minutes)	introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	
Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate listen and answer questions
Clinical training (80 minutes)	1. Patients are curated together with the teacher 2. Students are assigned to each patient and they curate independently.	Students record the results of patient analysis and curation results in a notebook
The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Practical training №13

Heart murmurs. Pulse check.Pulse characteristics. Blood pressure and rules of its measurement. The concept of hypertension and hypotension. Diagnostic value and methods of examination.

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training

Practical training plan	Heart murmurs. Pulse check.Pulse characteristics. Blood pressure and rules of its measurement. The concept of hypertension and hypotension. Study of diagnostic value and methods of examination.
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental examination
Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups
Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory stage (5 minutes)	1. The cleanliness of the auditorium is controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	Be prepared to hear
The stage of the learning process (10 minutes)	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	Students are prepared

Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate listen and answer questions
Clinical training (80 minutes)	1. Patients are curated together with the teacher 2. Students are assigned to each patient and they curate independently.	Students record the results of patient analysis and curation results in a notebook
The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Practical training №14

Electrocardiography. Recording rules. Normal electrocardiogram. ECG analysis. ECG changes in ventricular and ventricular hypertrophy. ECG signs in coronary insufficiency.

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	Electrocardiography. Recording rules. Normal electrocardiogram. ECG analysis. ECG changes in ventricular and ventricular hypertrophy. Study of ECG signs in coronary insufficiency
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental

	examination
Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups
Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory stage (5 minutes)	1. The cleanliness of the auditorium is controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	Be prepared to hear
The stage of the learning process (10 minutes)	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	Students are prepared
Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages	They are divided into small groups They watch participate listen and answer questions

	and actively evaluates the active participant students	
Clinical training (80 minutes)	1. Patients are curated together with the teacher 2. Students are assigned to each patient and they curate independently.	Students record the results of patient analysis and curation results in a notebook
The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Practical training №15

Arrhythmias ECG changes. ECG signs in disorders of cardiac automatism and excitability.

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	Arrhythmias ECG changes. ECG signs in disorders of cardiac automatism and excitability.
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental examination
Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups
Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and

	tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory stage (5 minutes)	1. The cleanliness of the auditorium is controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	Be prepared to hear
The stage of the learning process (10 minutes)	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	Students are prepared
Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate listen and answer questions
Clinical training (80 minutes)	1. Patients are curated together with the teacher 2. Students are assigned to each patient and they curate independently.	Students record the results of patient analysis and curation results in a notebook

The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Practical training №16

Basic clinical syndromes. Coronary insufficiency syndrome. Circulatory failure syndrome. Asthma of the heart, pulmonary edema. Vascular insufficiency syndrome. Cardiomegalia. Hypertension syndrome in the small circulatory system.

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	Basic clinical syndromes. Coronary insufficiency syndrome. Circulatory failure syndrome. Asthma of the heart, pulmonary edema. Vascular insufficiency syndrome. Cardiomegalia. Study of hypertension syndrome in the small circulatory system
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental examination
Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups
Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory stage (5 minutes)	1. The cleanliness of the auditorium is controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	Be prepared to hear
The stage of the learning process (10 minutes)	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	Students are prepared
Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate listen and answer questions
Clinical training (80 minutes)	1. Patients are curated together with the teacher 2. Students are assigned to each patient and they curate independently.	Students record the results of patient analysis and curation results in a notebook
The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Practical training №17

Symptomatology of rheumatic fever and primary rheumatic heart disease. Mitral foramen narrowing and mitral valve insufficiency. Principles of diagnosis and basic treatment.Aortic defects. Aortic stenosis. Aortic valve insufficiency. Principles of diagnosis and basic treatment.

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	Symptomatology of rheumatic fever and primary rheumatic heart disease. Mitral foramen narrowing and mitral valve insufficiency. Principles of diagnosis and basic treatment.Aortic defects. Aortic stenosis. Aortic valve insufficiency. Study of the principles of diagnosis and basic treatment
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental examination
Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups
Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and tests

1.2. Technological map of practical training.

Stages and timing of	Educator	Learners

work		
Preparatory stage (5 minutes)	1. The cleanliness of the auditorium is controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	Be prepared to hear
The stage of the learning process (10 minutes)	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	Students are prepared
Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate listen and answer questions
Clinical training (80 minutes)	1. Patients are curated together with the teacher 2. Students are assigned to each patient and they curate independently.	Students record the results of patient analysis and curation results in a notebook
The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Practical training №18

Hypertension. The concept of symptomatic hypertension. Principles of diagnosis and basic treatment. Ischemic heart disease. Angina and myocardial infarction. Principles of diagnosis and basic treatment.

1.1. Technological model of practical training.

Class time is 4 p.m.	Number of students up to 10
Place of training	An auditorium equipped with computers, multimedia and posters
Form of training	Practical training
Practical training plan	Hypertension. The concept of symptomatic hypertension. Principles of diagnosis and basic treatment. Ischemic heart disease. Angina and myocardial infarction. Study of the principles of diagnosis and basic treatment.
The purpose of practical training	To teach students the methods of examination of patients, interrogation, examination, palpation, percussion, laboratory and instrumental examination
Teaching style	Inquiry, performance of practical skills, curation of patients
Form of teaching	Divide into small groups
Training equipment	Educational-methodical complex, Textbook, multimedia, posters, model
Evaluation procedure	On a 100-point scale with interactive games, assessment, Wenn diagram, problem solving and tests

1.2. Technological map of practical training.

Stages and timing of work	Educator	Learners
Preparatory	1. The cleanliness of the auditorium is	Be prepared to hear

stage (5 minutes)	controlled 2. Student attendance is checked 3. To check the readiness of students for lessons	
The stage of the learning process (10 minutes)	1. Prepare on the topic 2. Preparation of presentation slides for the introductory lecture, preparation of the computer 3. Putting multimedia, videos 4. Develop a list of references used in the study of science	Students are prepared
Theoretical training (55 minutes)	1. Students are divided into small groups and given questions on the topic Assessment, Wenn diagram and bq. 2. Demonstration posters are used 3. Slides, multimedia are used 4. Summarizes and summarizes the information provided on the basis of the topics, encourages and actively evaluates the active participant students	They are divided into small groups They watch participate listen and answer questions
Clinical training (80 minutes)	1. Patients are curated together with the teacher 2. Students are assigned to each patient and they curate independently.	Students record the results of patient analysis and curation results in a notebook
The final stage (10 minutes)	1. Concludes 2. Provides independent work 3. Gives homework	He listens Takes notes

Techniques of practical skills
Practical skills №1

1. **Weight measurement techniques.**

(Required equipment: medical scales, patient control sheet, medical caps, container for disinfectant solution, disposable napkins under the patient's feet or a regular sheet can also be used).

Execution order standard.

№	*Sequence of actions (actions to be performed step by step):*	*Points*
1.	Ensuring that medical scales work properly;	8
2.	Provide adequate information on the manipulation to be performed;	6
3.	Preparation of medical caps and napkins;	7
4.	Put a disposable napkin or plain paper under the patient's leg;	8
5.	Dez in the container. to make sure that the solution is available and to consider the time of its preparation;	5
6.	The need to empty the bladder and intestines;	15
7.	Emphasize that the patient should undress to underwear and take off shoes;	15
8.	Eating a disposable napkin or plain paper on the medical scales platform;	6
9.	Invite the patient to climb in the middle of the scales area (when the scales are empty);	5
10.	Bringing the scales to working condition and determining the patient's weight;	12
11.	Enter the results in a special section of the patient's condition checklist;	8
12.	Wear gloves and dampen used napkins or paper with disinfectant;	5
Total:		100

Practical skills №2

Painting technique.

Necessary equipment: medical meter (rostomer), patient control sheet, medical caps, container for disinfectant solution, disposable napkins that fall under the patient's feet (a simple sheet can also be used).

Execution order standard.

№	*Sequence of actions (actions to be performed step by step):*	*Points*
1.	Make sure that the rostomer works properly;	8
2.	Provide adequate information on the manipulation to be performed;	7
3.	Preparation of medical caps and napkins;	7
4.	Put a disposable napkin or plain paper under the patient's leg;	8
5.	Dez in the container. to make sure that the solution is available and to consider the time of its preparation;	10
6.	Emphasize that the patient should undress to underwear and take off shoes;	10
7.	Wait for the patient to wait for the gauge bar and ascend to the center of his or her platform, and press his or her back against the instrument scale so that the patient's neck, shoulders, buttocks, and heel are firmly in contact with the vertical scale;	15
8.	The head should be in such a position that the upper edge of the external ear canal and the level of the fall corners must be in the same horizontal direction;	15
9.	The buy scale should be lowered to the top of the patient's head and the buy scale should be determined based on the pointer corresponding to the area of the bottom surface of the bar;	10

10.	Enter the results in a special section of the patient's condition checklist;	5
11.	Wear gloves and moisten a used napkin or paper with a disinfectant solution;	5
Total:		100

Practical skills №3

Demonstrate the technique of measuring body temperature.

Required equipment: medical thermometer, hourglass, F-003, 4. F-004 medical documents

Execution order standard.

№	*Sequence of actions (actions to be performed step by step):*	Points
1.	1. The thermometer is dried and wiped, the thermometer reading is lowered to 34-35 degrees by shaking,	10
2.	The patient is placed in a comfortable position. Transferred to a chair or put on a couch,	10
3.	The patient's subculture is wiped with a dry towel (there should be no obstruction under the cult),	10
4.	The ashes of the patient are raised slightly above the cult, the symbolic tip of the thermometer is poured into the cult of the patient,	10
5.	Lowering the patient's ashes, the head 2/3 of the thermometer is tightly squeezed, and the outside of the thermometer is held for 8-10 minutes.	10
6.	The thermometer reading is recorded (the symbol should not touch the ash)	10
7.	Thermometer readings are recorded in document 004,	10
8.	In the document 004 - you will find the lines with the sign "T", indicating the temperature, day and time, and mark the intersection,	10

9.	The temperature of the thermometer is lowered by 34 degrees by sliding,	10
10.	The thermometer is immersed in 3% chloramine solution, infused for 20-30 minutes, then dried, wiped and stored dry.	10
Total:		100

4. Topics of independent study

Independent work 1

Issues of medical deontology and euthanasia. Iatrogenia.

1) What is deontology,
2) Who first introduced the term deontology
3) What deontology learns
4) Name the types of deontology
5) What is medical ethics
6) The purpose and function of deontology
7) What is euthanasia
8) Types of euthanasia
9) In which countries euthanasia is used
10) Who first introduced the term euthanasia
11) Is euthanasia performed in Uzbekistan?
12) What is iatrogenic
13) Types of iatrogenic
14) Who introduced the term iatrogeny
15) Your attitude to euthanasia

The name of the topic	Ball	Baho	The level of knowledge of the student
Medical deontology, euthanasia problems, iatrogenic.	86-100	A'lo	Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.
	71-85	Good	Can observe independently, apply in practice, explain the essence, know, tell, have imagination.
	55-70	It's snowing	Explains the essence, knows, can tell, has imagination.

	0-54	Bloodless	He has no imagination, he does not know.

Topic 1

Independent work 2

Comparative diagnosis of primary and secondary respiratory interactions Pneumonia

1) What are the main breathing noises
2) Types of asthma
3) What is vesicular breathing
4) Indicate the vesicular breathing auditory areas
5) When called rough breathing
6) What is bronchial breathing
7) Bronchial breathing auditory areas
8) Causes of pathological bronchial respiration
9) What are the additional breathing noises
10) Types of wheezing
11) The mechanism of formation of crepitation
12) In what diseases crepitation is heard
13) Causes of pleural effusion
14) What is Zotiljam?
15) What types of Zotiljam are different?
16) The etiology of Zotiljam
17) Etiology of crouposis
18) Etiology of focal pneumonia
19) Atypical zotiljam clinic
20) Instrumental and laboratory diagnosis of atypical hemorrhage
21) Treatment of hypovitaminosis and avitaminosis

The name of the topic	Ball	Baho	The level of knowledge of the student
Comparative diagnosis of primary and secondary respiratory noise. Pneumonia	86-100	A'lo	Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.
	71-85	Good	Can observe independently, apply in practice, explain the essence, know, tell, have imagination.
	55-70	It's snowing	Explains the essence, knows, can tell, has imagination.
	0-54	Bloodless	He has no imagination, he does not know.

Independent work 3

Pleurisy. Symptomatology of bronchial asthma

1. What is pleurisy?
2. Causes of fluid accumulation syndrome in the pleural cavity?
3. The nature of the exudate in pleurisy
4. Percussive and auscultatory symptoms of exudative pleurisy
5. Types of pleurisy
6. Etiology of dry pleurisy
7. Etiology of exudative pleurisy
8. The pathogenesis of the development of pleurisy
9. Percussive symptoms of dry pleurisy
10. Auscultatory signs of dry pleurisy
11. Clinic of dry pleurisy
12. Clinic of exudative pleurisy
13. Analysis of sputum in dry and exudative pleurisy
14. What kind of sputum is secreted in exudative pleurisy
15. Dignostic methods of pleurisy
16. Describe the causes of airway obstruction syndrome in lung tissue
17. Understand bronchial asthma.
18. The main etiological factors that cause bronchial asthma
19. Pathogenesis of bronchial asthma
20. Clinic, course and diagnosis of bronchial asthma
21. Causes of pulmonary emphysema
22. Clinical course and diagnosis of pulmonary emphysema
23. What does the word asthma mean?
24. In which season is bronchial asthma more pronounced?
25. Is bronchial asthma an inherited disease?
26. What is the status asthmaticus?
27. What is atypical bronchial asthma?
28. Auscultatory symptoms in bronchial asthma?
29. Percussion data in bronchial asthma?
30. First aid in bronchial asthma?
31. Laboratory tests in bronchial asthma?
32. Instrumental examination in bronchial asthma?

Topic 3

The name of the topic	Ball	Baho	The level of knowledge of the student
Pleurisy. Bronchial asthma	86-100	A'lo	Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.
	71-85	Good	Can observe independently, apply in practice, explain the essence, know, tell, have imagination.
	55-70	It's snowing	Explains the essence, knows, can tell, has imagination.

	0-54	Bloodless	He has no imagination, he does not know.

Independent work 4

Comparative diagnosis of organic and functional interactions

1. Types of noise, the mechanism of formation
2. The mechanism of systolic murmur, the place of hearing
3. The mechanism of diastolic noise, the place of hearing
4. Describe the types of noise
5. Explain the properties of noise
6. The difference between systolic and diastolic noises
7. The difference between organic and functional interactions
8. Describe the phases of diastole
9. The mechanism of formation of pericardial friction, the place of hearing
10. What are pleural pericardial interactions?
11. Explain the explanation of systolic murmur in FKG
12. Describe the diastolic noise in FKG?
13. What is the difference between functional and organic interactions?

Topic 4

The name of the topic	Ball	Baho	The level of knowledge of the student
Comparative diagnosis of organic and functional interactions	86-100	A'lo	Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.
	71-85	Good	Can observe independently, apply in practice, explain the essence, know, tell, have imagination.
	55-70	It's snowing	Explains the essence, knows, can tell, has imagination.
	0-54	Bloodless	He has no imagination, he does not know.

Independent work 5

Heart defects. Changes in heart rate and pathology

1 Rules of cardiac auscultation

2 Indicate the hearing points of the heart

4 1 Tone formation mechanism

5 2 tone formation mechanism

6 1 ton is the difference from 2 tons

7 3 and 4 tone formation mechanism

8 In which cases a decrease of 1 ton is observed

9 In which pathology 1 ton increases
10 In what cases a decrease of 2 tons is observed
11 In which pathology does 2 tons increase?
12 1 and 2 tone hesitation is observed when
13 Formation of "horse drum" rhythm
14 Formation of "quail rhythm"
15 The concept of embryocardia
16 Tachycardia and its types
17 What is bradycardia and in what cases it is observed
18 What is the mechanism of extrasystole
19 Paroxysmal tachycardia, types, mechanism of formation
20 What are heart defects?
21Classification of heart defects?

Topic 5

The name of the topic	Ball	Baho	The level of knowledge of the student
Heart Defects Changes in heart rate norm and pathology	86-100	A'lo	Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.
	71-85	Good	Can observe independently, apply in practice, explain the essence, know, tell, have imagination.
	55-70	It's snowing	Explains the essence, knows, can tell, has imagination.
	0-54	Bloodless	He has no imagination, he does not know.

Independent work 6

Symptomatology of bacterial endocarditis

1) What is bacterial endocarditis
2) Bacterial endocarditis pathogens
3) The mechanism of action of bacterial endocarditis pathogens
4) Bacterial endocarditis clinic
5) Pathogenesis of bacterial endocarditis.
6) Differential diagnosis of bacterial endocarditis.
7) Instrumental diagnosis of bacterial endocarditis
8) Laboratory diagnosis of bacterial endocarditis
9) Auscultatory signs of bacterial endocarditis
10) Percussive symptoms of bacterial endocarditis
11) Consequences of bacterial endocarditis
12) Complications of bacterial endocarditis
13) ECG signs of bacterial endocarditis
14) Prevention of bacterial endocarditis

Topic 6

The name of the topic	Ball	Baho	The level of knowledge of the student

Symptomatology of bacterial endocarditis	86-100	A'lo	Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.
	71-85	Good	Can observe independently, apply in practice, explain the essence, know, tell, have imagination.
	55-70	It's snowing	Explains the essence, knows, can tell, has imagination.
	0-54	Bloodless	He has no imagination, he does not know.

Independent work 7

Symptomatology of postinfarction cardiosclerosis

1) What is ischemic heart disease
2) Classification by clinical form of YU.IK
3) YU.IK risk factors
4) What is angina
5) Types of angina
6) Causative factors and prevention of angina
7) Pathogenesis of myocardial infarction
8) Forms of myocardial infarction
9) Causes of myocardial infarction
10) Laboratory signs of myocardial infarction
11) ECG signs of myocardial infarction
12) What is post-infarction cardiosclerosis
13) Causes of post-infarction cardiosclerosis
14) Clinic of post-infarction cardiosclerosis
15) Treatment of post-infarction cardiosclerosis

Topic 7

The name of the topic	Ball	Baho	The level of knowledge of the student
Symptomatology of postinfarction cardiosclerosis	86-100	A'lo	Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.
	71-85	Good	Can observe independently, apply in practice, explain the essence, know, tell, have imagination.
	55-70	It's snowing	Explains the essence, knows, can tell, has imagination.
	0-54	Bloodless	He has no imagination, he does not know.

Independent work 8

Symptomatology of dilated cardiomyopathy

1) What is dilated cardiomyopathy
2) Causes of dilated cardiomyopathy
3) Types of dilated cardiomyopathy
4) Clinic of dilated cardiomyopathy
5) Pathogenesis of dilated cardiomyopathy
6) Differential diagnosis of dilated cardiomyopathy
7) Instrumental diagnostics of dilated cardiomyopathy
8) Objective signs of dilated cardiomyopathy
9) Auscultatory signs of dilated cardiomyopathy
10) Periods of dilated cardiomyopathy
11) Consequences of dilated cardiomyopathy.
12) Complications of dilated cardiomyopathy
13) Methods of treatment of dilated cardiomyopathy
14) ECG signs of dilated cardiomyopathy
15) Dilated cardiomyopathy

Topic 8

The name of the topic	Ball	Bah o	The level of knowledge of the student
Symptomatology of dilated cardiomyopathy	86-100	A'lo	Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.
	71-85	Goo d	Can observe independently, apply in practice, explain the essence, know, tell, have imagination.
	55-70	It's sno wing	Explains the essence, knows, can tell, has imagination.
	0-54	Bloo dless	He has no imagination, he does not know.

Independent work 9

Ischemic heart disease

1) What is ischemic heart disease
2) Classification by clinical form of YU.IK
3) YU.IK risk factors
4) What is angina
5) Types of angina
6) Causes and prevention of angina
7) Pathogenesis of myocardial infarction
8) Forms of myocardial infarction
9) Causes of myocardial infarction
10) Laboratory signs of myocardial infarction

11) ECG signs of myocardial infarction
12) Complications of myocardial infarction
13) Complications of angina
14) Diagnosis of angina
15) Atypical variants of myocardial infarction

Topic 9

The name of the topic	Ball	Baho	The level of knowledge of the student
Ischemic heart disease	86-100	A'lo	Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.
	71-85	Good	Can observe independently, apply in practice, explain the essence, know, tell, have imagination.
	55-70	It's snowing	Explains the essence, knows, can tell, has imagination.
	0-54	Bloodless	He has no imagination, he does not know.

Evaluation

THEMATIC RATING EVALUATION

At the Department of ICP and Clinical Pharmacology for the control and assessment of students' knowledge on the subject of ICP "Regulations on the system of control and rating of grades in higher education" and the Board of Directors of Medical Higher Education origin on the basis of the statute.

Evaluation procedure and criteria.

Based on the rating system of control over the knowledge, skills and abilities of students, the level of mastery of students in the subject of ICP is expressed in points.

The student's performance in the subject "IKP" during the semester is assessed on a 100-point scale.

These 100 points are distributed according to the types of control as follows:

Current assessment - 45 points;

Intermediate assessment - 20 points;

Independent work - 5 points;

Final evaluation - 30 points;

In assessing the knowledge of 3rd year students of the Faculty of Medicine and Medical Pedagogy, taking into account the specifics of teaching methods on the subject "ICP", the coefficient is used to take into account the value of DB, TMI, OB and YAB.

№	Type of assessment	Maximum score	Sorting score	coefficients
1.	Current evaluation	45	24.75	0.45
2.	TMI	5	2.75	0.05
3.	Interim evaluation	20	11.0	0.2
4.	Final evaluation	30	16.5	0.3
	TOTAL	100	55.0	1

The following standard criteria are recommended for the assessment of the student and the control of mastery of the 3rd year of medical pedagogy on the subject "IKP":

a) For 86-100 points the student's level of knowledge should correspond to:

conclusions and decisions;

creative thinking;
to be able to observe independently;
to apply the acquired knowledge in practice;
understanding the essence;
to know, to tell;
to have an idea.
b) For 71-85 points, the student's level of knowledge must meet the following:
to be able to observe independently;
to apply the acquired knowledge in practice;
understanding the essence;
to know, to tell;
to have imagination.
v) The level of knowledge for 55-70 points must answer:
understanding the essence;
to know, to tell;
to have imagination.
e) the level of knowledge of the student in the following cases-54 points should be evaluated:
not having a clear idea, not knowing.

In accordance with the standard criteria, the assignments of the evaluation criteria for final control are developed by the ICP Basic Education Institution (TTA), which is approved by the Scientific and Methodological Council of the institute and delivered to related higher education institutions.

Students' independence in the subject of ICP is assessed on the basis of the performance of relevant tasks in the current, intermediate and final controls and the points allocated to it.

The student's IKP subject rating is determined:

$$\mathrm{Rf} = \frac{V \bullet O'}{100}$$

here:

The total workload for the subject of ICP in the V-VI semester (306 hours).

O' - The level of mastery of the subject (in points).

In each of the current, intermediate and final controls on the subject of ICP, 55% of the allocated points are determined as qualifying points.

The score allocated in each of the current and interim controls is more than 55% of the qualifying score All students who score are in this subject will be included in the final control.

If a student scores higher than the qualifying score for this type of control in the final examination, this score is added to the points collected from the current and intermediate controls. Otherwise, the student is considered not mastered the subject of ICP.

Glossary

Agony (buckwheat) borba		A situation that occurs on the eve of a scientist
Outpatient (lat) podvijniy holyachiy		Treatment is a prophylactic facility designed to provide outpatient medical care. It will have a maximum of 5 medical staff.
Acrocyanosis (buckwheat) krainy samiy otdalenniy, visokiy.		Distal parts of the human body, nails, the tip of the nose, the lower ends of the ears turn blue
Acromegaly (buckwheat) krayniy samiy otdalenniy, visokiy.		It is a neuroendocrine disease resulting from injury to the pituitary and hypothalamus, characterized by enlargement of the limbs, facial skeletal bones, internal organs, and metabolic disorders.
Anamnesis (grech) vospominaniye		Inquiry from the patient about the patient himself and about the onset and development of the disease
Anasarka (grech) prefix, oznachayushaya dvejeniye verx, usulennoy deystviye, obratnoy, protivopolojnoy deystviye grech. (Myaso)		Swelling of the entire subcutaneous tissue, diffuse swelling
Anthropometry (buckwheat) human buckwheat. (mera)		Measuring different parts of the human body, weight and height
Arthritis (grech). Sustav chastitsa		Inflammation of the joint
Asthenic (grech) bessiliye, weakness		The type of human structure that characterizes the height of the body relative to the transverse dimensions.
Assit (buckwheat) peritoneal vodyanka		Accumulation of free fluid in the abdomen
Auscultation (lat) vislushivat		The basic method of hearing-based internal organs in which sound events are associated with their hearing
Bolezn (grech) nedug, bolezn		The body's response to damage
Vesicle (lat) umenshitelno, puzir		Filled with serous exudate (diameter) 5 mm) is the primary morphological element of the vesicular rash

Vitiligo (lat) powder, porcha		Appearance of pigmented white spots on the skin of different sizes and types
Gimeplegia (grech) poluudar		Paralysis of the muscles of one part of the body (half, one-sided). Paralysis of the limbs (transverse).
Paraplegia		Paralysis of all limbs
Tetraplegia		Paralysis of all limbs
Herpes (grech) polzuchaya		Rash on the skin and mucous membranes in the form of blisters
Giant (grech) giant, giant		The clinical syndrome is characterized by excessive growth of the neck (males are taller than 200 cm, females are taller than 180 cm) or excessive enlargement of certain parts of the body.
Hygiene (grech) prinosyashiy zdorovye, selebniy. Goddess of health (in ancient Greeks)		Measures aimed at improving the living conditions, living and working conditions of the population, studying the impact of external environmental factors on human health.
Hyperpigmentation (grech) prefix, nad, sverx, chrezmernoye povisheniye, uvelichenie chego-libo		Forcible staining of skin coatings and mucous membranes to a darker color.
Hypertensive (grech) force		Type of human body structure characterized by the fact that the transverse dimensions of the torso are larger than the longitudinal dimensions and the subclavian angle of the sternum is impenetrable
Hospital (lat) gostepriimniy		Medical institution for inpatient treatment of servicemen (hospital)
Gospitalizirovat		Admission of the patient to the hospital (hospital) for examination and treatment
Hyperthermia (grech) heat		Warming of the body with an increase in body temperature
Hyperthermia (grech) prefix, oznachayushaya: pod, nije, snizu, ponijeniye, umensheniye		

nedostatochnost, slabaya virajennost		Decreased body temperature
Gorb (lat) bugor		Deformation of the thorax and spinal cord, characterized by kyphosis, curvature.
Depigmentation (lat) oznachayushaya: prekrashenie, udaleniye, ustraneniye, izbavleniye ot chego-libo; dvijeniye vniz		Partial or complete pigmentation of tissues
Deontology doljnoe nadlejashee nauka, ucheniye. Vrachebnoe deontology		The doctrine of the doctor's duties and responsibilities
Diagnosis raspoznavaniye (grech)		The type of deformity of a normal part of the body. Determining the severity of the disease
Diagnostics sposobnost raspoznavat (grech)		Identify the disease process
Power dynamics, action (grech)		The developmental stages of an action, such as a disease
Irradiation boley ozaryat, ocveshat (let)		Distribution of pain beyond the boundaries of the pathological lesion
Cachexia istosheniye, xudosochniye (grech)		Excessive weight loss
Clinic — buckwheat		In addition to treatment, the institution of scientific research and pedagogical treatment (stasinar)
Klonicheskiy smyatenie, sutoloka (grech)		Frequent contraction of muscles
Koylonixiya		Spoon-shaped change in the shape of the nails
Coma spyachka (buckwheat)		Severe dementia is characterized by severe damage to the central nervous system, complete loss of consciousness, lack of reflexes, and loss of vital functions.
		The structure and shape of the human body,

Constitution		external conditions, the sum of genetic, morphological and physiological features that appear in a person under the influence of the social environment.
Cretinism		An endocrine disease characterized by mental and physical stunting as a result of decreased activity of the anterior pituitary gland.
Crisis-solution (grech)		Sudden change in the course of the pathological process (for example, a sharp decrease in fever)
Krapivnitsa		Red spots on the skin, limited or diffuse in the less mucous membranes, which continue with itching and rise in the form of blisters.
Curation- vedeniye, polzovaniye (lat)		Follow-up of patients
Lixoradka- increase in temperature (lat)		The reaction of the organism, characterized by an increase in body temperature
Postoyannaya lixoradka		Constantly high temperature. The difference between morning and evening temperatures1 C rest does not increase.
Poslablyayushaya lixoradka		The difference between morning and evening temperatures 1C The temperature in the morning at least 37 C will fall in love with.
Peremejayushaya lixoradka		Daily difference in temperature 1C in the morning the temperature will be around the norm
Istoshayushaya ili rekticheskaya lixoradka		Evening and morning temperatures 3-4Cdiffers in that the morning temperature is around or below the norm. It often continues with sweating and itching that dries a person’s fatigue.
Volnoobraznaya lixoradka		The temperature rises and falls from time to

Return lixoradka		time
Obratnaya ili izvrashennaya lixoradka		The heating period of a few days alternates with the feverless period
Lordoz		The temperature will be higher in the morning than in the evening
Medicine lechu lechit, vrach, vrachebnoe iskustva		Anterior curvature of the spine
Monoarthritis		A system of scientific knowledge and practical measures aimed at the treatment and prevention of disease, protection and promotion of human health, capacity building and prolongation of life
Nanism		Inflammation of only one joint
Nosology- science obolezni (buckwheat)		It is an endocrine disease characterized by extreme short stature and sexual immaturity
Normostheny		The doctrine of certain diseases
Osmotr		A type that differs in that the body structure of a person is properly proportional
Orthopnoea		Review, check
Reverse arrangement of internal organs		A forced sitting position in which patients lower their legs
Nalpation		Complete replacement of internal organs
Papula-knot (grech)		The main method of examination is palpation of the patient
Paralich- rasslablenie (grech)		It is a hard nodule that rises slightly from the skin due to skin rashes
Pathogenesis- suffering, disease (buckwheat) vozniknovenie		Paralysis of the organs as a result of dysfunction
		Department of Medicine, which studies the mechanism of development and occurrence of the disease

Patognomonichniy syndrom-utkazatel		A symptom of a specific disease
Pathology - suffering, disease (buckwheat)		The doctrine of disease
Percussion		The method of examination of the patient by resuscitation
Polyclinic		It is a specialized treatment and prevention institution that provides medical care to patients and at home
Petexii		Spotted subcutaneous hemorrhage (petechiae) that does not disappear when pressed
Propedtvtika- obuchat predvfritelno (grech)		It is an elementary subject that teaches students how to diagnose diseases based on symptoms.
Prognoz medisinskiy (grech) znanie napered, predskazanie		Determines the flow of future outcomes of disease
Prophylaxis- preduppeditelniy, predoxranitelniy (grech)		Disease prevention
Ruby after pregnancy		During pregnancy, the upper layer of the abdominal wall skin is stretched and torn, resulting in small scars.
Roseola		Small pink round spots that disappear when pressed
Resistance		Resistance of organs, palpation. Resistance of the organism to pathogenic factors. Microbial resistance to antibiotics, sulfonamides and other chemotherapeutic agents
Remission umenshenniye, oslablenie		Temporary decline in disease incidence
Sanitation - otsyuda sanitarniy, sanatorium		Healing
Semiotics, symptomatology,		The science of symptoms, signs of disease

semiology (grech)		
Symptom- coincidence, sign (grech)		A symptom of the disease
Syndrome		A set of symptoms that determine the state of the disease, its origin
Scoliosis - curved, isolated (buckwheat)		The curvature of the spine to one side
Sopor- spyachka		An unpleasant state in which reflexes are stored
Status nastoyashiy		The condition is the condition that occurs when the patient is examined
Stethoscope		A device that hears sounds that occur in the human body
Striya		Stripes on the skin
Stupor		Disorders of consciousness characterized by numbness
Sip		Various, separate, sometimes intertwined spots, nodules, blisters, and other signs on the skin and mucous membranes.
Terminalnoy sostoyanie		A debilitating condition is a condition that leads to death
Thermometry (grech) tepliy, mera		Temperature measurement
Trophic food (buckwheat)		Nutrition, nutrition. Eating Disorders
Alimentary dystrophy pisha, eda		Eating as a result of starvation (dystrophy)
Turgor		Skin tension and elasticity
Phonendoscope		A device that has a device that amplifies the sounds that occur in the human body
Ortikarnaya sip		Eshakemi
Cyanosis		The skin coatings and visible mucous

		membranes are bluish in color
Epicrisis		Conclusion on the outcome of the disease
Erythema		Redness of the skin
Endoartering		Organic alteration of vascular walls
Etiology		The science of the causes and conditions of disease
Yatrogeniya- doctor, treatment (buckwheat)		A disease caused by a doctor

Respiratory system.

Lung abscess	Purulent inflammation of the lung tissue
Apnea	Shortness of breath
Asthma	Shortness of breath is a condition of shortness of breath, suffocation.
Atelectasis	Loss of air capacity of a part of the lung.
Amforichtskoye dixaniye	If the walls of the lung tissue are close to the chest, the walls are flat, a large cavity is opened in the bronchial tubes, then it sounds like an amphoric breath or a sound when the mouth is blown into a narrow bottle
Bradipnosis	Extremely infrequent breathing
Bronchial asthma	Bronchial asthma. Choking plays a key role in this disease, the disease of allergic and infectious nature occurs as a result of suffocation. In this case, especially exhalation is repeated from time to time.
Bronchitis	Inflammation of the bronchi (mucous membrane)
Bronchography	The bronchi are injected with an opaque contrast agent and examined by X-ray
Bronchoscopy	Examination of the bronchi and mucous membranes using a bronchoscope
Bronchiophony	Hearing the sound of air passing through the bronchi when you hear the chest
Bronchiectasis	Expansion of some parts of the bronchi. Bronchiectasis is cylindrical, capillary, spiral.
Visipaniya	Herpes around the lips and nose
Gangrene	Decay of lung tissue

Temoptosis	Blood spitting
Hemothorax	Accumulation of blood in the pleural cavity
Hydropneumothorax	Simultaneous accumulation of fluid and air in the pleural cavity
Hypercapnia	Accumulation of carbon dioxide in the blood. This phenomenon is observed in diseases that continue with a decrease in pulmonary ventilation.
Hydrothorax	Accumulation of fluid in the pleural cavity
Hypoxemia	Decreased oxygen concentration in the blood
Hypoxia	Tissue oxygen deficiency
Diapedez	The passage of blood elements through the vascular wall to the surrounding tissue
Dixaniya Biota	Pause the breathing rhythm for a few seconds (when breathing is normal). occurs in meningitis and other diseases
Dikhaniya Kussimulya	Strong noisy sparse breathing is characteristic. This is the breath of Kusmaul. This condition is observed in a coma.
Dixaniya Cheyn- stocks	Changes in respiratory rhythm. At the same time, the breath becomes wavy and the amplitudes of the breath decrease, with pauses in between. This situation is repeated. Cheyenne-Stokes asthma can also occur during sleep in a healthy person with severe illness
Cavern	Poplar is easily formed in diseases of the hollow lung tuberculosis, pulmonary gangrene and purulent tissue of the lungs.
Oxygen emkost blood	The volume of oxygen saturation of the blood
Kyphosis	The curvature of the spine to the back
Compression	

Crepitation	Chest compression
Kashel	Screaming is an additional breathing sound, reminiscent of the sound that comes out when you rub your hair together. Zotiljam is heard in pulmonary tuberculosis and severe heart failure. Occurs in the alveoli of the lungs. Crepitation is best heard at the peak of respiration.
Bloodletting	Cough reflex is an act of protection, most often occurs when foreign objects (sputum, mucus, blood, food debris) enter the respiratory tract
Lordoz	Hemorrhage occurs as a result of rupture of blood vessels in the airways or lung tissue.
Pueril	The forward curvature of the spine
Oprelelenie golosovogo drojaniya	Puerile respiration (common in young children) Long stay of the sternum away from the chest
Pyothorax	This method is used to diagnose diseases of the chest organs
Pleurisy	Accumulation of pus in the pleural cavity
Pneumonia	Inflammation of the pleural effusions, dry and exudative pleurisy are distinguished. By nature, pleurisy is divided into serous-serous-fibrinous, hemorrhagic purulent and mixed pleurisy.
Pneumosclerosis	Inflammation of the lung tissue
Pneumotachometry	Condensation due to excessive growth of connective tissue in the lungs
Pneumomethorax	Measurement of respiration and expiratory rate External respiratory function is studied using a pneumotachometer. The pneumotachometry method helps to

Pulmonology	determine the strength of the respiratory muscles. Accumulation of air in the pleural cavity
Sakkadirovannoy or prerivistoe dixanie	The science of studying diseases of the respiratory organs
Spirography	This is a type of vesicular breathing, nitex, which is heard intermittently. Such breathing is heard when mucus accumulates in some small bronchi or when the mucous layer swells due to the movement of the air notex.
Taxipnosis	Examination and recording of external respiration using a spirograph
Tomography legkix	Acceleration of breathing
Fluorography	Layered radiography of the thoracic organs It is used for mass examination for dispensary purposes. This method involves taking a picture of the subject using a fluorograph attached to an X-ray screen.
Hripi	Snoring is heard in bronchial diseases (acute and chronic bronchiectasis and bronchopneumonia).
Schwarti	Thickening of the pleural sheets
Transudate	Fluid without signs of inflammation is fluid that is felt in the cavity from the vascular walls as a result of blood stasis. The specific gravity of less than 3 proteins ranges from 1006 to 1012.
Exudate	Fluid formed due to inflammation. Increased vascular permeability as a result of tissue inflammation. As a result, the liquid part of the blood falls into the tissues and cavities. The exudate contains 3 to 6% protein (specific gravity more than 1015)

Emphysema	As a result of the violation of the elastic state of the lung tissue, there is an increase in air residue and an expansion of the lung volume

CIRCULATORY SYSTEM

Allorhythmia	Periodic (rhythmic) abnormalities of the heart rhythm
Aneurysm	Enlargement of certain sections of the ventricles and vascular wall of the heart. This dilated area beats like a vein.
Aortalgia	Prolonged chest pain. observed when the aorta is damaged.
Aortitis syphilitic	Inflammation of the aorta caused by trauma. This disease usually results in aortic valve insufficiency.
Arrhythmia	Cardiac arrhythmias
Ballistocardiography	Using a ballistic cardiograph, the flow of blood to the aorta and pulmonary arteries as a result of the contraction of the heart is recorded graphically, depending on the movement of the body.
Bigeminia	Recurrent extrasystole after each normal contraction of the heart
Block	Temporary or complete non-transmission of the impulse of excitation through the conduction system of the heart. The blockades will be complete and incomplete
Bradycardia	Decreased heart rate (less than 60 beats per minute)
Bol	Pain in the heart area is more likely to occur in heart disease

Biche serdse	Expansion of the heart border in all directions. It is observed in hypertension, in the aortic pores of the heart.
Vectorcardiography	Measurement of the electromagnetic field of the heart using a vectorcardiograph
Vinujdennoy polozheniye	It is seen in severe diseases of the heart and blood vessels, in which the patient assumes a state of pain relief
Hydropericarditis	Fluid accumulation in the heart sac
Hypertrophy	Thickening of the muscles as a result of strenuous work of the heart
Hypertension	Increased blood pressure
Hypotension	Decreased blood pressure
Decompensation	Loss of ability to recover. Loss of the ability of an organ or physiological system to function on its own. Cardiac decompensation is a weakening of heart function in heart disease, inability to perform its function.
Dextrocardia	Location on the right side of the heart in the chest (congenital defect)
Diastole	The relaxation of the heart muscle, the period when the heart fills with blood, is called diastole
Dispnoe	Shortness of breath, wheezing, wheezing, and difficulty breathing
Infarction	Myocardial infarction is a disorder of blood flow in a certain part of the coronary arteries.
Zatyajnoy septic endocarditis	Prolonged purulent inflammation of endocarditis.
Capillaroscopy	A method of examining the capillaries and blood circulation in the capillaries using a capillaryroscope apparatus.

	Capillaryroscopy is mainly performed on the nail area of the fingers
Cardiology	The science that studies diseases of the cardiovascular system
Cardiosclerosis	It is a disease of the heart muscle, which is caused by the appearance of scar tissue. Cardiosclerosis, atherosclerotic and myocardiotic types are distinguished
Tetrageminiya	Extrasystology repeated after every three contractions of the heart
Koshache murlikane	Cat snoring, trembling, trembling when palpated. This phenomenon occurs as a result of blood passing through the hole it finds. (For example, in mitral and aortic foramen stenosis)
Compensation	If there is a functional or organic defect in an organ, it must be fully or partially remedied by other parts of that organ. As a result, the deficiency is unknown or significantly reduced. For example, the adaptive phase of cardiac activity in heart defects
Coffee with milk	In purulent inflammation of the endocardium of the heart, the skin rand is reminiscent of the milky color of coffee
Mersatelnaya arrhythmia	It results from a disorder of the conduction and excitability state of the heart. When the pulse is held, the order of the waves cannot be determined in any order, the pulse waves vary in terms of length as well as stiffness. In pulsating arrhythmias, the pulse acceleration is texisystolic bradysystolic or normosystolic
Myocarditis	Inflammation of the heart muscle
Mitralnoye liso	Today and the skin of the cheeks turn a

	bluish color similar to the wings and abdomen of a butterfly. Narrowing of the mitral orifice occurs.
Oxyhemometry	Determination of the level of oxygen saturation of the blood using Van-Slayka and oxyhemometry apparatus. Normally, 94-100% of blood vessels are saturated with 70-75% oxygen in the veins.
Oxygen therapy	Oxygen therapy
Oscillography	Method of recording vascular oscillations using an oscilloscope
Otyoki	When cardiovascular disease worsens, swelling is observed in the legs, sometimes all over the body
Pancarditis	Simultaneous inflammation of all layers of the heart (endocardium, myocardium and epicardium)
Paroxysmal tachycardia	Sudden acceleration of heart contraction. The heart rate is 150 beats per minute.240 g can reach up to
Pericarditis	Inflammation of the heart sac. Pericarditis is dry and wet (exudative)
Peremejayushaya chromota	This condition causes severe pain in the foot in obleterative endoarthritis. This is why the patient stops and walks. During walking, the blood supply to the tissues is disrupted.
Polycardiography	Recording of ECG, FKG and sphygmogram of the carotid artery at a certain time using a polycardiograph apparatus. This method shows how long ventricular systole lasts and helps to determine the possibility of contraction of the heart vusculus
Polyserosite	Fluid accumulation in cavities

Porok	Deficiency, deficiency
Porok serdsa	A disease caused by a defect in the heart valve apparatus in heart defects. Heart defects are congenital and acquired. Acquired heartburn is a change in the structure of the valves. Congenital malformations are defects that occur as a result of defects in the embryonic development of the cardiovascular system
Pulse	Pulse is the vibration of the vascular wall as a result of the movement of blood from the heart
Rheumatism	Rheumatism is an infectious allergic disease that occurs with inflammation of the connective tissues in the body (especially the connective tissue of the heart). In this disease, inflammation of all layers, sections, serous layers and other organs of the heart is observed.
Rheumatoid endocarditis	Inflammation of the inner endocardium and middle (myocardial) tissue of the heart due to rheumatism
Rheography	It is a method of checking circulatory functions, based on the expression of the resistance of the body to the conduction of electricity from living tissues with special curves-rheograms.
Refractory period	The period when the heart muscle is immobile
Rhythm galapa	The hoof rhythm is a three-syllable rhythm that is reminiscent of the sound of a running horse due to the intensification

	of physiological 3-4 tones. Obrazsov proposed to call this rhythm diastolic rhythm, the hoof rhythm is divided into presystolic and summasion rhythms, depending on the time of onset. It is heard in three parts of the heart.
Rhythm perepelki	Bedana rhythm. It arises from the addition of an additional sound to the intensified I and II tones. In mitral stenosis, the valves vibrate at the beginning of diastole, during the opening of the valves.
Systole	The period of contraction of the heart muscle or blood drive is called systole
Stenosis	Perforation, ie incomplete opening of the heart valves
Angina	Chest tightness, pain in one part of the heart muscle as a result of a sudden decrease in blood flow or temporary loss of blood
Sphigmography	Graphical recording of pulse
Tachycardia	Heart rate (more than 80 beats per minute)
Tonus	A certain level of muscle tension
Tregeminia	Recurrent extrasystole after both heart contractions
Phonocardiography	Recording of sounds occurring in the heart using a phonocardiograph
Ecstasy	Additional contraction of the heart, except for the horse
Electrocardiography	Graphical recording of electrical events occurring in the heart
Embolism	Clogging of peripheral blood vessels as a result of obstruction of foreign bodies

	(air, gas, oil, solids)

Evaluation criteria

The name of the topic	Ball	Baho	The level of knowledge of the student
Gastritis. Wound diseases	86-100	A'lo	Able to draw conclusions and decisions, think creatively, observe independently, apply in practice, explain the essence, know, tell, have imagination.
	71-85	Good	Can observe independently, apply in practice, explain the essence, know, tell, have imagination.
	55-70	It's snowing	Explains the essence, knows, can tell, has imagination.
	0-54	Bloodless	He has no imagination, he does not know.

LIST OF BASIC TEXTBOOKS AND TEXTBOOKS USED

MAIN TEXTBOOKS AND TEXTBOOKS

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