


The Ministry of science and higher education of the Russian Federation Ulyanovsk State University	Form	
F - work program		



**APPROVED**  
the decision of the scientific Council of the Institute  
Medicine, Ecology and Physical Culture UISU  
from «17» May 2023 y., protocol № 9/250  
Chairman V.I. Midlenko  
(signature, transcript of the signature)  
"17» May 2023 y

### THE WORKING PROGRAM OF THE DISCIPLINE

Discipline	Faculty surgery
Faculty/ College/School	Medical faculty named after T. Z. Biktimirov IME and PhC UISU
Course	IV
Department	Faculty surgery

**Direction (speciality) 31.05.01 general medicine**

(code direction (specialty), full name)

Orientation (profile/specialization) specialist degree (level of specialization)  
full name

Form of training full time  
(full-time, part - time, part-time (indicate only those that are realized))

Information about the developers:

Full name	Department	Position, academic degree, rank
Isaev D.N.	Faculty surgery	Associate Professor, PhD in Medical Sciences

Date of introduction in educational process at UISU: « 1 » 09 2023 y.

(When updating the work program for the meeting of the Department specifies the maximum number of records updating and filled with the following form):


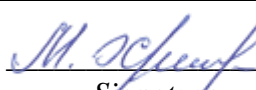
The program is updated at the meeting of the department: protocol № 1 from 31.08.2024 y.

The program is updated at the meeting of the department: protocol № \_\_\_ from \_\_\_ 20\_\_ y.

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AGREED	AGREED
Head of the Department of faculty surgery, implementing the discipline	Head of the Graduation Department of hospital therapy
 / A.Y. Vozzhennikov/ Signature Full name «17» 05 2023 г.	 /M. A. Vise-Khripunova / Signature Full name «17» 05 2023 г.

## 1. GOALS AND OBJECTIVES OF STUDYING THE DISCIPLINE:

### Goals of the discipline development:

The purpose of the study is to consolidate the knowledge gained by students in the study of basic theoretical and clinical disciplines, sections of surgery. Further deepening and improvement of practical skills acquired in the course of training practice, familiarization with the organization of medical care and working conditions of the doctor, as well as with the basics of health care organization; consolidation of practical skills in medical, organizational, managerial and research activities in order to form and consolidate professional competencies. Formation of general professional competencies of the GPC-4 and professional competencies of PC-2 according to the plan of development of the educational program.

### Objectives of the discipline development:

- To teach the use of medicines and their combinations in solving professional tasks.
- To teach how to use medical devices provided for by the procedure for providing medical care when performing professional activities.
- To familiarize students with the etiology, pathogenesis, clinic, diagnosis and treatment of patients with surgical pathology.
- To teach tactical measures in case of emergency conditions in surgery.

## 2. Place of discipline in the structure of the BPEP

1.1 In accordance with the curriculum of the specialty 31.05.01 "General Medicine", the discipline "Faculty surgery" belongs to the basic part of block 1 "Disciplines" of the mandatory part (Б1.О.26). The total labor intensity is 7 ZET (252 academic hours).

**1.2. To study the discipline, knowledge, skills and abilities formed by previous disciplines are necessary:**

**GPC-4** (Is able to use medical devices provided for by the procedure for providing medical care, as well as to conduct examinations of the patient in order to establish a diagnosis)

**PC-2** (Readiness to collect and analyze patient complaints, his anamnesis data, examination results, laboratory, instrumental, pathologic-anatomical and other studies in order to recognize the condition or establish the fact of the presence or absence of the disease)

- Б1.О.11 Propedeutics of internal diseases. (GPC-4, PC-2)
- Б1.О.13 General surgery. Introduction to the specialty. (GPC-4, PC-2)
- Б1.О.15 Pathological anatomy (PC-2)
- Б1.О.18 Topographic anatomy and operative surgery (GPC-4)
- Б2.О.02(У) Care for patients with therapeutic profile (GPC-4, PC-2)
- Б2.О.04(П) Assistant To The Medical Assistant (GPC-4, PC-2)
- Б2.О.05(У) Introductory practice (GPC-4, PC-2)
- Б2.О.06(П) Assistant ward nurse (GPC-4, PC-2)
- Б2.О.07(У) Nurse's Assistant (PC-2)
- Б2.О.08(П) Practice of obtaining professional skills and experience of professional activity in the positions of nursing staff (GPC-4, PC-2)
- Б1.В.ДВ.01.01 Scientific style of speech (PC-2)
- Б1.В.ДВ.06.01 Analysis of a scientific text(PC-2)
- Б2.О.09(У) Diagnostic practice (PC-2)

**1.3 Studying the discipline "Faculty Surgery" allows students to acquire knowledge in the following disciplines:**

- Б1.О.20 Stomatology (GPC-4, PC-2)

- B1.O.21 Dermatovenereology (PC-2)
- B1.O.22 Neurology, medical genetics, neurosurgery (PC-2)
- B1.O.24 Otorhinolaryngology (GPC-4, PC-2)
- B1.O.25 Pediatrics (PC-2)
- B1.O.27 Obstetrics and Gynecology (PC-2)
- B1.O.28 Faculty Therapy (PC-2)
- B1.B.04 Urology and Andrology (PC-2)
- B2.O.11(II) Inpatient Facility Physician Assistant (PC-2)

#### 1.4 Disciplines for which the discipline "Faculty Surgery" is the previous one:

- B1.O.29 Ophthalmology (GPC-4, PC-2)
- B1.O.31 Psychiatry, medical psychology (PC-2)
- B1.O.32 Endocrinology (PC-2)
- B1.O.33 Hospital therapy (PC-2)
- B1.O.35 Infectious diseases (PC-2)
- B1.O.36 Traumatology, orthopedics (GPC-4, PC-2)
- B1.O.38 Hospital surgery, pediatric surgery (PC-2)
- B1.O.40 Phthisiology (PC-2)
- B1.O.43 Forensic medicine (PC-2)
- B1.O.44 Oncology, radiation therapy (PC-2)
- B1.O.46 Radiation diagnostics (PC-2)
- B1.B.06 Topical issues of gynecology (PC-2)
- B1.B.08 Modern aspects of oncology (PC-2)
- B1.B.07 Topical issues of internal diseases (PC-2)
- B1.B.ДВ.02.01 Diagnosis and treatment of extraripital tuberculosis (PC-2)
- B1.B.ДВ.02.02 Surgical diseases in general medical practice (PC-2)
- B1.B.ДВ.03.01 Clinical pathological anatomy (PC-2)
- B1.B.ДВ.04.02 Topical issues of andrology (PC-2)
- B1.B.ДВ.07.01 Concomitant trauma (PC-2)
- B1.B.ДВ.07.02 Clinical electrocardiography (PC-2)
- B3.01(Г) Preparation for passing and passing the state exam (GPC-4, PC-2)

### 3. THE LIST OF PLANNED LEARNING OUTCOMES DURING THE INTERNSHIP OF STUDENTS

**Formation of general professional competence of GPC-4 and professional competences of PC-2 according to the plan of development of educational program**

Table 3

Code and name of the implemented competence	The list of planned results of training in the discipline (module), correlated with indicators of achievement of competencies
<b>GPC-4</b> Able to use medical devices provided for by the procedure for the provision of medical care, as well as conduct examinations of the patient in order to establish a diagnosis	<b>ID-1<sub>GPC4</sub></b> <b>Know:</b> the basics of the legislation of the Russian Federation on the protection of public health, the main regulatory and technical documents; the basic principles of management and organization of medical care to the population; the organization of medical control over the state of health of the population, the issues of examination of disability and medical and legal assistance to the population; etiology, pathogenesis and preventive measures of the most common diseases; modern classification of diseases; clinical picture, features of the course and possible complications of the most common diseases occurring in a typical form in different age groups;

	<p>diagnostic methods, diagnostic capabilities of methods of direct study of the patient therapeutic, surgical and infectious profile, modern methods of clinical, laboratory instrumental examination of patients (including endoscopic, radiological methods of ultrasound diagnostics); criteria for the diagnosis of various diseases; clinical and pharmacological characteristics of the main groups of drugs and rational choice of specific drugs in the treatment of the main pathological syndromes of diseases and emergency conditions in patients, including the basics of anti-doping legislation; procedures for the provision of medical care for the main diseases of therapeutic, surgical, obstetric-gynecological and other profiles.</p> <p><b>ID-2</b> <sub>GPC4</sub></p> <p><b>Be able to:</b> plan, analyze and evaluate the quality of medical care, determine the status of the patient: collect an anamnesis, conduct a survey of the patient and / or his relatives, conduct a physical examination of the patient (examination, palpation, auscultation, measurement of blood pressure, determination of the properties of the arterial pulse, etc.); assess the patient's condition to make a decision on the need to provide him with medical care; conduct an initial examination of the systems and organs: nervous, endocrine, immune, respiratory, cardiovascular, blood and hematopoietic organs, digestive, urinary, reproductive, musculoskeletal and joints, eyes, ear, throat, nose; set priorities to solve the patient's health problems: critical (terminal) condition, condition with pain syndrome, condition with chronic disease, condition with infectious disease, disability, geriatric problems; make a preliminary diagnosis - to synthesize information about the patient in order to determine the pathology and the causes that cause it; outline the amount of additional studies in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a sufficient result; formulate a clinical diagnosis; develop a plan of therapeutic (surgical) actions, taking into account the course of the disease and its treatment; formulate indications for the chosen method of treatment, taking into account etiotropic and pathogenetic agents, substantiate pharmacotherapy in a particular patient with the main pathological syndromes and emergency conditions, determine the route of administration, regimen and dose of drugs, assess the effectiveness and safety of the treatment; apply various methods of administration of drugs.</p> <p><b>ID-3</b> <sub>GPC4</sub></p> <p><b>Own:</b> Own methods of using medical devices in the diagnosis and treatment of surgical patients</p>
<p><b>PC-2</b></p> <p>Readiness to collect and analyze the patient's complaints, anamnesis, examination results, laboratory, instrumental, pathoanatomical and other studies in order to recognize the condition or establish the fact of the presence or absence of the disease</p>	<p><b>ID-1</b> <sub>pc2</sub></p> <p><b>Know:</b> diagnostic methods, diagnostic capabilities of methods of direct study of the patient therapeutic, surgical and obstetric-gynecological profile; modern methods of clinical, laboratory, instrumental examination of patients (including endoscopic, radiological methods, ultrasound diagnostics).</p> <p><b>ID-2</b> <sub>pc2</sub></p> <p><b>To be able to:</b> determine the status of the patient: collect an anamnesis, conduct a survey of the patient and / or his relatives, conduct a physical examination of the patient (examination, palpation, auscultation); conduct an initial examination of systems and organs: respiratory, cardiovascular, blood and hematopoietic organs, digestive, endocrine and urinary; outline the amount of additional studies in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a reliable result.</p> <p><b>ID-3</b> <sub>pc2</sub></p> <p><b>Own:</b> methods of general clinical objective examination (questioning,</p>

	examination, palpation, percussion, auscultation) in diseases of internal organs; interpretation results of laboratory, instrumental diagnostic methods for pathology of internal organs.
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#### 4. The total complexity of the discipline

4.1. Discipline in qualifying units (total) 7

4.2 Discipline by type of training (hours) 252

Table 4.2

Kind of training	Number of hours (form of training-full time)		
	Total according to plan	about semesters	
		№ 7 Semester	№8 Semester
1	2	3	4
Contact work with a teacher in accordance with plane	116	52	64
Classrooms:	116	52	64
Lectures (Including PrP) *	26	10	16
workshops and hands-on workshops and classes (Including PrP) *	90	42	48
laboratory work (practice) (Including PrP) *	-	-	-
Self-employed	100	74	26
The form of current control of knowledge control of self-work: testing, control work, colloquium, abstract, etc. (at least 2 species)	Tests, oral interviews. Solving problems	Tests, oral interviews. Solving problems	Tests, oral interviews. Solving problems
Coursework	-	-	-
Types of intermediate certification (exam, credit)	36	0	36
Total hours in discipline	252	126	126

If it is necessary to use partially or exclusively remote educational technologies in the educational process, the table shows the number of hours of work of teaching staff with students for conducting classes in remote form using e-learning.

\*hours of PrP in the discipline are indicated in accordance with the UP, if the discipline provides for the performance of individual elements of work related to the future professional activities of students.

#### 4.3. Content of the discipline (module) Distribution of hours by topics and types of educational work:

##### Form of full-time education

Table 4.3

Section names and themes	Ful	Types of training		Form of current knowledge control
		Classrooms	S	

		Lectures	Practical classes, workshops	Laboratory work, practice			
1	2	3	4	5	6	7	8
<b>Discipline Faculty Surgery</b>							
<b>Section 1. Thyroid disease</b>							
<u>1.1 Endemic, sporadic goite.</u>	8	2	4	-	1	2	Tests, oral interviews. Solving problems.
1.2 Diffuse toxic seep. Thyroiditis. The Strumites.	6	-	2	-	-	4	Tests, oral interviews. Solving problems.
1.3 Thyroid cancer	6	-	-	-	-	6	Tests, oral interviews. Solving problems.
<b>Section 2. Respiratory diseases</b>							
<i>Lung diseases, pleura:</i>							
2.1 Non-specific lung disease.	8	2	6	-	1	2	Tests, oral interviews. Solving problems.
2.2 Non-specific pleura diseases.	6	-	2	-	1	4	Tests, oral interviews. Solving problems.
2.3 Lung Cancer	6	-	-	-	-	6	Tests, oral interviews. Solving problems.
2.4 Esophageus hernia	6	-	-	-	-	6	Tests, oral interviews. Solving problems.
<b>Section 3. Diseases of the circulatory system</b>							
3.1 Congenital Heart Defects	8	2	4	-	1	2	Tests, oral interviews. Solving problems.
3.2 Coronary heart disease (CHD).	8	-	4	-	2	4	Tests, oral interviews. Solving problems.
3.3 Varicose disease of the lower extremities	8	2	4	-	1	2	Tests, oral interviews. Solving problems.
3.4 Licking artery disease.	8	2	4	-	1	2	Tests, oral interviews. Solving problems.
3.5 Thrombosis and artery embolism	8	2	6	-	1	-	Tests, oral interviews. Solving problems.
3.6 Acquired Heart Defects	6	-	-	-	-	6	Tests, oral interviews. Solving problems.
3.7 Raynaud's Disease	6	-	-	-	-	6	Tests, oral interviews. Solving problems.
<b>Section 4. Abdominal diseases</b>							
4.1 Ulcerative disease of the stomach and duodenum. Complications: proves,	8	2	6	-	1	-	Tests, oral interviews. Solving problems.
4.2 Complicated forms of ulcers. Penetration. Stenosis. Malignization.	6	-	6	-	1	-	Tests, oral interviews. Solving problems.
4.3 Acute and chronic appendicitis	8	2	6	-	1	-	Tests, oral interviews. Solving problems.
4.4 Appendicitis complications	6	-	6	-	1	-	Tests, oral interviews.



							Solving problems.
4.5 Acute intestinal obstruction.	8	2	6	-	1	-	Tests, oral interviews. Solving problems.
4.6 Gallstone disease. Acute and chronic cholecystitis.	8	2	6	-	1	-	Tests, oral interviews. Solving problems.
4.7 Acute pancreatitis.	8	2	6	-	1	-	Tests, oral interviews. Solving problems.
4.8 Oesophageal Diseases	6	-	-	-	-	6	Tests, oral interviews. Solving problems.
4.9 Mallory-Weis Syndrome	6	-	-	-	-	6	Tests, oral interviews. Solving problems.
4.10 Portal Hypertension	6	-	-	-	-	6	Tests, oral interviews. Solving problems.
4.11 Рак желудка	6	-	-	-	-	6	Tests, oral interviews. Solving problems.
4.12 Rectal cancer	6	-	-	-	-	6	Tests, oral interviews. Solving problems.
4.13 Hemorrhoids	6	-	-	-	-	6	Tests, oral interviews. Solving problems.
4.14 Colon Cancer	6	-	-	-	-	6	Tests, oral interviews. Solving problems.
<b>Section 5. Abdominal wall diseases</b>							
5.1 Hernias	6	2	4	-	1	-	Tests, oral interviews. Solving problems.
<b>Section 6. Peritonitis</b>							
6.1 Peritonitis	8	2	4	-	1	2	Tests, oral interviews. Solving problems.
<b>Section 7. Simulation training</b>							
7.1 Developing practical skills using teaching dummies	6	-	6	-	6	-	Tests, oral interviews. Solving problems.
<b>Section 8. Independent work under the guidance of a teacher</b>							
8.1 Reviewing the medical histories of supervised patients and protecting abstracts	4	-	-	-		4	Tests, oral interviews. Solving problems.
<b>Total:</b>	<b>252</b>	<b>26</b>	<b>90</b>	<b>-</b>	<b>24</b>	<b>100</b>	<b>36</b>

## 5. CONTENT DISCIPLINE (MODULE)

### Section 1. Thyroid.

#### *Topic 1.1 Introduction. Endemic and sporadic goiter.*

Topic content: Anatomical and physiological information about the thyroid gland. The morphological structure of the thyroid gland is normal and in its various diseases. Synthesis of thyroid hormones and regulation of thyroid function. Endemic, sporadic goiter.

Classification of diseases. The role and place of methods of investigation of patients-physical examination, ultrasound, radioisotope scanning, determination of the level of hormones (TK, T4 and TSH) and antibodies in serum, puncture biopsy and cytological examination, histological examination. Goiter. Prevalence. Classification by etiology, by the degree of enlargement of the thyroid gland, by form, by localization, by the functional state of the thyroid gland, histological structure. Clinical and morphological concepts of goiter. Etiology and pathogenesis of goiter. Goiter endemia and iodine prevention. Clinic, diagnosis and treatment (conservative, operative) of goiter. Indications for surgery. The choice of the volume of surgery in patients with various forms of goiter. Modern principles of treatment of patients with nodular goiter. Postoperative hormone replacement therapy. Recurrent goiter.

#### *Topic 1.2 Diffuse toxic goiter. Thyroiditises. Strumitis.*

Content themes: Goiter. Prevalence. Classification by etiology, by the degree of enlargement of the thyroid gland, by form, by localization, by the functional state of the thyroid gland, histological structure. Clinical and morphological concepts of goiter. Etiology and pathogenesis of goiter. Goiter endemia and iodine prevention. Clinic, diagnosis and treatment (conservative, operative) of goiter. Indications for surgery. The choice of the volume of surgery in patients with various forms of goiter. Modern principles of treatment of patients with nodular goiter. Postoperative hormone replacement therapy. Recurrent goiter. Thyrotoxicosis. Definition and causes of thyrotoxicosis. Classification by severity (international, milk). Pathophysiological essence of changes developing in the body with thyrotoxicosis. Diffuse toxic goiter and thyrotoxic adenoma of the thyroid gland. Clinic and diagnosis. Methods of treatment – conservative, radioiodine therapy, surgical. Indications and contraindications to various methods of treatment. Principles and methods of preoperative preparation. Principles and methods of surgical treatment of goiter. Intraoperative and postoperative complications, their diagnosis and correction. Thyroiditis and strumitis. Thyroiditis de quervain, Hashimoto's, Riedel. Etiology and pathogenesis, clinic, differential diagnosis. Hypothyroidism. Medical and surgical treatment, indications for surgery. Acute purulent thyroiditis.


#### *Topic 1.3 Cancer of the thyroid gland.*

The content of the theme: Etiology and pathogenesis. Malignant tumors of the thyroid gland should be attributed to dishormonal. Their connection with hyperfunction of the anterior pituitary was established. Increased content of pituitary thyroid-stimulating hormone (TSH) in the blood is an important etiological and pathogenetic factor in the development of thyroid tumors. The groups at increased risk for breast cancer include: women who suffer from inflammatory or tumor diseases of the genitals and mammary glands for a long-time person who have a hereditary tendency to tumors and dysfunction of the endocrine glands; persons with adenomas or adenomatosis of the thyroid gland, recurrent euthyroid goiter in endemic areas persons who have received General or local exposure to ionizing radiation on the head and neck, especially in childhood. Source of development. Histological structure of tissue frequency of malignant tumors a-cells (follicular) B-cells (gyurtlya-Ashkinazi) papillary adenoma follicular adenoma trabecular adenoma papillary adenocarcinoma Follicular adenocarcinoma Undifferentiated cancer "60-75% "15-25% "5-10% C-cells (parafollicular) Solid adenoma Medullary cancer (solid cancer with amyloidosis stroma) "5% Metaplastic epithelium squamous cell carcinoma 1% I. Classification of thyroid cancer (ICD - o Code c73) by the TNM System (5th Edition, 1997. Undifferentiated (anaplastic) cancers are extremely malignant. Almost all patients with undifferentiated cancers die within one year. According to the literature, mortality is higher in men compared to women. In patients older than 40 years, the prognosis worsens in comparison with young patients.

### Section 2. Respiratory diseases

#### *Topic 2.1. Nonspecific diseases of the lungs and pleura.*



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Topic content: Abscess, gangrene, cysts, bronchiectasis; emphysema; atelectasis, aspiration. Surgical anatomy of the lungs and pleura. Methods of investigation of patients with lung and pleural diseases (x-ray and radiography, computed tomography, angiopulmonography, scintigraphy, bronchography, bronchoscopy rigid and FBS, bronchial catheterization, thoracoscopy, pleurography, cytological examination of sputum and pleural fluid). Abscess and gangrene of the lung. Acute abscess of the lung. Single and multiple abscesses, pathogenesis, clinic of acute abscess, diagnosis, differential diagnosis. Conservative methods of treatment. Complications. Indications for surgery in the acute period and types of surgical interventions. Prognosis and outcomes of acute lung abscess and gangrene. Chronic lung abscess. The reasons for the transition of an acute abscess to a chronic one. Surgical treatment. Result of treatment. Bronchoectatic disease. Primary and secondary bronchiectasis. Etiology, pathogenesis. Clinic of bronchiectasis. Diagnosis, differential diagnosis. Indications for surgical treatment. Methods of preoperative preparation. Type of operation. Cysts of the lung. Classification. Etiology, pathogenesis. Clinic, diagnosis, differential diagnosis. Indications for surgical treatment. Type of operation.

### **Nonspecific diseases of the pleura**

Topic content: spontaneous pneumothorax, hydrothorax, pleural empyema. Spontaneous idiopathic pneumothorax: primary and secondary pneumothorax (bullous disease, bullous emphysema), pathogenesis, clinic, differential diagnosis. Method of treatment. Complications. Indications for surgery. Forecast. Hydrothorax Definition of the concept and the main causes of this complication. Clinic, differential diagnosis of pleurisy. Forecast. Pleural empyema. Definition of the concept and the main causes of this complication. Classification by etiological factor, prevalence of the process. Ways of penetration of infection into the pleural cavity. Clinic, diagnosis, conservative and surgical treatment, Indications for drainage of the pleural cavity (underwater drainage Byulau, constant aspiration). The pathophysiological concept of the treatment of empyema. Pyopneumothorax. The reasons for the development. Total and limited pyopneumothorax. Features of their development and clinical course. Diagnostics. Treatment. Chronic and postresection empyema of the pleura. Definition of concept. The reasons for the transition of acute empyema to chronic. Clinic, diagnosis, treatment. Method of treatment. Pleurectomy, Pleuronectidae, pleuropneumectomy. Thoracoplasty.

### ***Topic 2.2 Cancer of the lung.***

Topic content: ETIOLOGY the Main causes of lung cancer: - Smoking; - exposure to radon; - asbestos; - dust particles; - viruses. Growth and SPREAD Features of lung cancer growth: - develops from the bronchial epithelium; - exponential growth of tumor mass; - lymphogenic and hematogenic metastasis. The source of lung cancer are the cells of the bronchial epithelium. Carcinoma affects the right and left lung with approximately the same frequency. The prevalence of tumors in the body is characterized by the classification of TNM. CLINIC Clinical manifestations of lung cancer are due to: - damage to lung tissue; - damage to neighboring organs: esophagus, large nerves and blood vessels; - metastasis to bones, brain; - paraneoplastic syndromes. DIAGNOSTICS. The main principles of lung cancer diagnosis: - the main methods of tumor detection: radiography, bronchoscopy, sputum cytology; - there are no reliable radiological signs of early lung cancer; - detection of radiological signs of the tumor requires invasive diagnosis to exclude cancer; - methods of obtaining material: sputum cytology, bronchoscopy with biopsy, controlled transthoracic puncture, thoracoscopy, thoracotomy.

The surgical method consists in removing a portion of lung tissue with a volume of at least a fraction with a deviation from the macroscopically determined tumor boundary of at least 2 cm proximally. At the same time, regional lymph nodes are removed from the bifurcation of the trachea and distal. Options for surgical interventions: lobectomy, bilobectomy, pneumonectomy. It is possible to perform tracheal resection at a close location of the tumor boundary from it. When the tumor spreads to neighboring organs, their resection can be performed, in this case, the operation is called combined. The most frequent postoperative complications: failure of the bronchial stump with the development of pleural empyema, the formation of bronchopleural fistulas.

### ***Topic 2.3 hiatal Hernia.***

Topic content: Anatomical and physiological data. Classification. Clinic, diagnostics, methods of conservative and surgical treatment. Plastic, according to Nissen. Complications of hernia.

### Section 3. Diseases of the circulatory system.

#### ***Topic 3.1 congenital heart disease. Coronary heart disease (CHD).***

Topic content: non-Infection of the ductus arteriosus, septal defects, tetrad of Fallot, coarctation of the aorta, dmzhp, dmpp. Anatomical and physiological data. Classification. Research methods, special research methods (heart sounding, angio-cardiography, phonocardiography, ultrasound, etc.). Clinic. Diagnostics and differential diagnostics. Indications for surgery. Methods of surgical treatment of non-infection of the ductus arteriosus, septal defects, tetrad of Fallo, coarctation of the aorta, dmzhp, dmpp. Surgical approach. Application of artificial blood circulation apparatus, principles of apparatus design. Outcomes of operations.

#### **Coronary heart disease (CHD).**

Topic content: Anatomical and physiological data. Classification. Clinic, diagnostics, methods of surgical treatment (aorto-coronary bypass, mammarocoronary bypass, indications for them. Accesses. Results. Postinfarction aneurysm of the heart. Classification of postinfarction aneurysm of the heart. Frequency. Clinic, diagnosis. Indications and contraindications to surgery. Principles of surgical treatment. endovascular surgery in the treatment of coronary heart disease.

#### ***Topic 3.2 Varicose veins of the lower extremities. Thrombosis and embolism of the arteries.***

Topic content: Anatomical and physiological information about the venous system of the lower extremities. Classification of diseases. Malformation's disease (Parkes, Weber, Klippel-Trenaunay syndrome). Clinic, diagnosis, treatment. Varicose disease of the lower extremities. Etiology, pathogenesis, pathological anatomy. The clinic of the disease depending on the stage of the disease. Diagnostics. Methods for determining the patency of deep veins, assessment of the valvular apparatus. Treatment: surgical, sclerosing therapy, indications and contraindications. Endoscopic dissection of the communicant veins. Postoperative period. Causes of relapse. Complications of varicose disease: acute thrombophlebitis, bleeding, trophic ulcer. Clinic, diagnosis, treatment. Thrombosis and embolism of the arteries. The concept of embolus and thrombus. Diseases predisposing to the development of embolism and thrombosis. Classification of acute ischemia. Clinic, diagnosis. Differential diagnosis between embolism and thrombosis. Conservative and operative treatment, their results. Features diagnosis and treatment of embolism and tromosa in different vascular beds. Prevention of thrombosis and embolism.

#### ***Topic 3.3 Acquired heart defects.***

Topic content: aortic valve Stenosis and insufficiency; mitral valve stenosis and insufficiency; tricuspid valve stenosis and insufficiency; pulmonary trunk valve stenosis and insufficiency; Anatomical and physiological data. Classification. Defects of the mitral valve and other heart valves. Classification of mitral defect groups. Severity of the defect. Clinic, diagnosis. Indications and contraindications to surgery. Methods of operation. Closed methods, open methods, commissurotomy and prosthetics of heart valves, plastic surgery on valves. Artificial heart valve.

#### ***Topic 3.4 Raynaud's Disease.***

The content of the theme: Etiology. Raynaud's disease is a disease characterized by paroxysmal ischemia of the fingers or feet due to impaired regulation of vascular tone. In etiology, hereditary predisposition is important, apparently, the state of the endocrine system, as well as mental injuries, chronic intoxication with nicotine, alcohol, in some cases, the connection of the disease with hypothermia is revealed. Pathogenesis. In the pathogenesis of an ischemic attack, an increase in the tone of the sympathetic nervous system plays a role. From Raynaud's disease, which is considered as a separate clinical form of angiotrophoneurosis, distinguish the so – called Raynaud's syndrome (Raynaud's phenomenon)-the same as in Raynaud's disease, blood supply disorders of the fingers of the extremities, but which are secondary to any disease.

Clinical manifestations of ischemic attacks in Raynaud's disease and Raynaud's syndrome are similar. 2-4 fingers of hands or feet are more often affected. Treatment of Raynaud's disease is aimed at normalization of higher nervous activity, regulation of vascular tone, training of vascular reactions, which is achieved by the selection of physiotherapeutic procedures, San. - Kura. treatment, psychotherapy. Use means that inhibit the influence of sympathetic nerves on blood vessels, vasodilators, platelet disaggregants, and in the absence of effect, surgical treatment is used – sympathectomy or gangliectomy.

#### **Section 4. Diseases of the abdominal cavity.**

##### ***Topic 4.1 peptic ulcer of the stomach and duodenum. Complicated forms of peptic ulcer disease.***

Content themes: Peptic ulcer disease stomach. Johnson's classification: types of gastric ulcers (mediogastric, combined peptic ulcer of the stomach and duodenum, prepiloric and pyloric ulcers). Features of etiology and pathogenesis of gastric ulcers. Indications for surgery and types of surgery for gastric ulcer and duodenal ulcer: gastric resection on the Kocher, Billroth I, Billroth II in modifications, according to Roux, the Chamberlain-Finsterer, S. I. Spasokukotsky, poly-a-Reichel, Moynihan; SPV, drainage operations and vagotomy. Peptic ulcer of the duodenum. Anatomical and physiological information about the stomach and duodenum. Methods of examination of patients with diseases of the stomach: secretion, motility, x-ray, esophagogastroduodenoscopy. Etiology and pathogenesis. Pathologic and anatomical knowledge. Stage of development. Clinic, diagnosis. Methods of investigation of motility and secretion of the stomach. Indications for surgical treatment of chronic duodenal ulcer. Clinic, diagnosis, treatment of perforation and bleeding. Complicated forms of peptic ulcer disease. Complications of gastric ulcer and duodenal ulcer: bleeding, perforation, pyloroduodenal stenosis, penetration, malignancy of the ulcer. Pathogenesis of complications. Pathological anatomy. Clinic, diagnosis, differential diagnosis, surgical treatment, conservative treatment. Features of preparation of patients for operation. Clinic, diagnosis treatment for penetration, stenosis, malignancy.

##### ***Topic 4.2. Acute and chronic appendicitis. Housing. Acute and chronic cholecystitis.***

Topic content: Anatomical and physiological information. Acute appendicitis. Classification. Pathologic forms. Etiology, pathogenesis. Clinic and diagnosis. Features of the clinic depending on the variant position of the vermiform process. Acute appendicitis in children, pregnant women and the elderly. Treatment, indications and contraindications to appendectomy, choice of method of anesthesia and surgical access. Preparation of patients for surgery, management of the postoperative period. Complications of acute appendicitis: appendiceal infiltration, periappendicular abscess, intestinal, pelvic and subdiaphragmatic abscess, pylephlebitis. Clinic of various complications: their diagnosis (ultrasound, CT, etc.) and treatment (surgical, ultrasonic method of drainage of abscesses). Peritonitis as a complication of acute appendicitis. Features of surgery depending on the prevalence of peritonitis. Indications for laparostomy, methods and management of the patient in the postoperative period. Chronic appendicitis. Classification. Clinic, diagnosis, differential diagnosis. Indications and contraindications to surgical treatment. Features of diagnosis and treatment in children. Housing. Acute and chronic cholecystitis.

The content of the theme: Etiology and pathogenesis. Clinic, diagnostics, conservative and operative treatment. Extracorporeal lithotripsy, drug dissolution of stones. Laparoscopic cholecystectomy, from the mini-access. Complications: choledocholithiasis, BDS cicatricial stenosis, strictures of the ducts. Diagnosis (preoperative and intraoperative). Treatment. Indications for operations on choledochal and methods of completing it (deaf suture of the common bile duct, external drainage, supraduodenal choledochoduodenostomy, transduodenal papillosphincterotomy). Endoscopic papillotomy. Complications of acute cholecystitis: peritonitis, empyema of the bladder, cholangitis. Clinic, diagnosis and treatment of complications. Forecast. Features of diagnosis and treatment in children.

##### ***Topic 4.3. Acute intestinal obstruction.***

Topic content: definition of the concept. Classification (by origin, pathogenesis, anatomical localization, clinical course). Methods of research of patients. The concept of congenital intestinal obstruction, atresia. Pathological anatomy, pathogenesis, clinic, diagnosis, differential diagnosis. Principles of surgical treatment. Mechanical intestinal obstruction: Obturation, strangulation, mixed. Classification of mechanical intestinal obstruction. Obturation intestinal obstruction-causes, pathogenesis, features of violations of water-electrolyte and acid-base state. Clinic, diagnosis, differential diagnosis. Surgical treatment.

Strangulation intestinal obstruction: definition, classification, clinic of different types. Differential diagnosis. Types of operations, indications for intestinal resection.

Dynamic intestinal obstruction: Etiology. Pathogenesis. Dynamic intestinal obstruction as a symptom of acute diseases of the thoracic, abdominal and retroperitoneal space, chronic intoxication. Clinic, differential diagnosis. Principle of treatment.

Intussusception: Definition. Types of intussusceptions. Reasons. Pathogenesis. Intussusception as a

combination of obstructive and strangulation intestinal obstruction of the intestine. Clinic. Diagnosis, differential diagnosis. Types of operation. Indications for disinvagination and resection of the intestine. Preoperative preparation and management of the postoperative period in patients with acute intestinal obstruction. To combat intoxication, paresis, gidroyodida disorders, changes in acid-base status.

**Topic 4.4 Acute pancreatitis.**

Topic content: Anatomical and physiological information about the pancreas. Classification of diseases. Acute pancreatitis: Definition. Etiology and pathogenesis. Classification. Pathophysiology. Stages of the course (edema, necrosis, formation of hemorrhagic foci, necrosis of the parenchyma, phlegmon, gangrene, abscess). Clinic. Diagnosis: ultrasound, laparoscopy, CT, angiography, percutaneous puncture, enzyme diagnosis. Conservative treatment. The role of cytostatics, sandostatin. Therapeutic endoscopy, indications for surgical treatment and types of operations. Purulent complications of acute pancreatitis, diagnosis, treatment. Abscess of the omentum. Disease outcome.

Chronic pancreatitis: Etiology, pathogenesis of chronic pancreatitis. Classification. Clinic, diagnosis. Differential diagnosis. Special diagnostic methods: ultrasound, CT, angiography, percutaneous puncture of the gland. Treatment: conservative and surgical.

Pancreatic cysts: true and false. Etiology, pathogenesis. Clinic. Diagnosis, differential diagnosis. Surgical treatment: external and internal drainage of cysts, percutaneous drainage of cysts.

**Topic 4.5. Diseases of the esophagus.**

Topic content: anatomy and physiology of the esophagus. Typical x-ray and endoscopic picture of the main diseases. Esophagus cancer. Indications for extirpation, gastrostomy, radiation and chemotherapy depending on the histological structure, localization and prevalence of the disease. Diverticula of the esophagus (gómez Rubio, Rokitansky, radiofrequency). Cardiospasm (pneumotometry, the operation of Heller). Cicatricial stricture of the esophagus. Indications for augmentation and plastic surgery. Damage to the esophagus. Syndrome Boerhaave. Forecast.

**Section 5. Diseases of the abdominal wall**

**Topic 5.1. Hernias. Peritonitises.**

The content of the theme: General. Definition of concept. Elements of abdominal wall hernia. Classification of hernias according to origin, location, course. The frequency of hernias of the anterior abdominal wall. Etiology, pathogenesis. General symptoms of hernias. Diagnostics. Principles of surgical treatment. The main stages of hernia surgery. Contraindications to surgery. Prevention of hernia complications. Complications of hernia: inflammation, nepravilnosti, koprostaz, infringement. Definition of concept. Clinic, diagnosis, treatment.

Strangulated hernia: Definitions. Mechanism of fecal and elastic infringement. Pathoanatomical changes in the affected organ. Types of infringement: retrograde, parietal. Clinic of strangulated hernia. Diagnostics and differential diagnostics. Surgical treatment of strangulated hernias. Features of operative technique: determination of intestinal viability, resection boundaries. Therapeutic tactics in case of doubtful diagnosis, spontaneous and forcible reduction of a strangulated hernia. The alleged reduction. About the infringement.

Inguinal hernias: Straight and oblique inguinal hernias (anatomical and clinical differences). Congenital and sliding inguinal hernias. Clinic, diagnosis, differential diagnosis. Methods of operations: plastic front and back walls of the inguinal canal. Plastic surgery using explants, videoscopic surgery. Features of surgical intervention in congenital and sliding inguinal hernias.

Umbilical hernias: Anatomical background. Clinic, diagnosis, differential diagnosis. Surgical treatment: operations Lexer, Mayo, Sapezhko. Features of treatment of umbilical hernias in childhood.

Femoral hernias: anatomy of the femoral canal. Clinic, diagnosis, differential diagnosis. Methods of operations.

Postoperative hernias: Causes of development. Clinic, diagnosis. Methods of operations. Causes of recurrence of postoperative hernias. Surgical treatment.

Hernias of the white line of the abdomen: Anatomical background. Clinic, diagnosis, methods of operation.

Internal hernias and hernias of rare localization: Anatomical background. Clinic, diagnosis, differential diagnosis. Treatment.

**Peritonitises.** Definition of peritonitis. Anatomical and physiological information about the peritoneum.



Classification of peritonitis (by clinical course, localization, nature of effusion, by the nature of the pathogen, by stage).

Acute purulent peritonitis: Sources of acute purulent peritonitis. Features of the spread of infection of the abdominal cavity in acute various surgical operations of the abdominal cavity. Pathoanatomical changes in acute purulent peritonitis, pathogenesis. The importance of abdominal absorption disorders, intestinal paresis, endotoxemia, disorders of hydroionic balance and microcirculation in the development of the clinical picture of peritonitis. Clinic, diagnosis. Differential diagnosis. Modern principles of complex treatment. Features of surgical intervention. Peritoneoscope (programmed relaparotomy) at Acad. V. K. Gostischev. The role of antibiotic therapy. The fight against violations of hemodynamics and microcirculation, gidroyodida disorders, intoxication and intestinal paresis in the postoperative period. Methods of extracorporeal detoxification. Treatment outcome. The role of emergency care in the early diagnosis and treatment of peritonitis.

Chronic peritonitis: clinical features, diagnosis, treatment. Specific peritonitis. Classification (downstream, according to the morphological forms). Clinic, diagnosis, treatment.

### Section 7. Simulation training

#### *Topic 7.1. Development of practical skills using training dummies.*

Topic content: External examination and palpation of the larynx and neck.

External examination of the chest: auscultation, palpation. Drainage and puncture of the pleural cavity. Cardio-resuscitation activities.

Determination of pulsation on the limbs. Stopping external bleeding.

Insertion of the probe into the stomach.

## 6. TOPICS OF PRACTICAL AND SEMINAR CLASSES

### Section 1 thyroid Disease.

#### **Topic 1.1 Introductory crucifixion. Endemic and sporadic goiter. (practice).**

Safety instructions. Acquaintance with the Department. Supervision of patients in the surgical Department of GUZ UOKB, participation in rounds by the teacher of patients, presence at outpatient consultative receptions. Presence in the dressing room and operating room when performing manipulations and studies-bandaging patients, performing puncture biopsy under ultrasound control, with strumectomy. The solution of situational problems from methodical instructions of Department and test collections.

At the beginning of the lesson, control of the initial level of knowledge of students, during the lesson, test control of mastering the material of the lesson and solving situational problems.

*Questions on the topic:*

1. What is the clinical picture characteristic of thyrotoxic crisis?
2. What complications are typical for operations on the thyroid gland?
3. What is a symptom of Edema?
4. Clinical manifestations of thyrotoxicosis?
5. The patient is 25 years old, upon admission to the Department complains of General weakness, rapid mood changes, irritability, tearfulness, fatigue. the tumor-like formation on the anterior surface of the neck is also of concern. On examination: an increase in both thyroid lobes III art., positive eye symptoms. Tachycardia of 120 beats/min. on palpation, the thyroid gland elastic consistency, diffusely enlarged both lobes. Diagnosis?
6. At biochemical research of blood, it was revealed: hypercalcemia, hypophosphatemia. Under R-logical study-osteoporosis broken bones. Sternal puncture without features. Diagnosis?
7. How much does the thyroid gland normally weigh?

#### **Topic 1.2. Diffuse toxic goiter. Thyroiditises. Strumitis. (practice).**

*Questions on the topic.*

1. What are the indications for surgical treatment of toxic goiter?
2. How to treat Hashimoto's thyroiditis?
3. The 43-year-old patient has an enlarged left thyroid lobe, and the accumulation of radioactive iodine is reduced during scanning. Treatment?
4. How is thyrotoxic shock manifested?

## Section 2. Diseases of the respiratory system

### Topic 2.1: Nonspecific lung diseases. (practice).

Supervision of patients in the thoracic Department of the goose UOKB, participation in rounds by the teacher of patients, presence at outpatient consultative receptions. Presence in the dressing and operating room when performing manipulations and studies-bandaging patients, performing puncture of the pleural cavity, inhalation, exercise therapy. The solution of situational problems from methodical instructions of Department and test collections.

At the beginning of the lesson, control of the initial level of knowledge of students, during the lesson, test control of mastering the material of the lesson and solving situational problems.

*Questions to the topic:*

1. What is recommended for gangrene affecting one of the lobes of the lung?
2. How to treat abscessed pneumonia?
3. What should be done with the development of pyopneumothorax in lung abscess?
4. How to detect bronchiectasis?
5. The man of 40 years, after alcoholic intoxication within 4-5 hours slept on the street. Through 2 days have him has risen temperatures, appeared pain in the chest. The subsequent increase in temperature to 39 C. After 2 weeks, suddenly with a cough, about 200 ml of pus with an unpleasant smell departed. Diagnosis?
6. What can be the consequence of reactive exudative pleurisy?
7. What is a reliable sign of pulmonary hemorrhage?
8. What operations are used to treat bronchiectasis?
9. What are the stages of development of acute lung abscess?
10. What are the methods of drainage of lung abscess?
11. What is thoracoplasty?

### Topic 2.2: Nonspecific diseases of the pleura. (practice).

Supervision of patients in the thoracic Department of the goose UOCH, participation in rounds by the teacher of patients, presence at outpatient consultative receptions. Presence in the dressing room and operating room when performing manipulations and studies-bandaging patients, performing drainage and puncture of the pleural cavity, washing the pleural cavity. The solution of situational problems from methodical instructions of Department and test collections.

At the beginning of the lesson, control of the initial level of knowledge of students, during the lesson, test control of mastering the material of the lesson and solving situational problems.

*Questions on the topic:*

1. What is pleural empyema?
2. What is the line Damuaso?
3. What types of empyema do you know by their location in the pleural cavity?
4. What is total empyema of the pleura?
5. What are the morphological changes of the pleura characteristic of chronic pleura?
6. What is drainage Byulau?
7. What types of washing of the pleural cavity do you know?
8. After what procedure (research) can be diagnosed empyema pleura?
9. When shown the active drainage of the pleural cavity?
10. When is surgical treatment of empyema indicated?
11. What are the stages of treatment of pleural empyema?

## Section 3. Diseases of the circulatory system.

### Topic 3.1: congenital heart disease. (practice).

Supervision of patients in the cardiac surgery Department of GUZ UOKB, participation in rounds by the teacher of patients, presence at outpatient consultative receptions. Presence in the dressing room and operating room when performing manipulations and operations-dressings of patients. The solution of situational problems from methodical instructions of Department and test collections. At the beginning of the lesson, control of the initial level of knowledge of students, during the lesson, test control of mastering the material of the lesson and solving situational problems.



*Questions on the topic:*

1. Classification of congenital heart defects.
2. What are the types of hemodynamics in the small circle of blood circulation.
3. What are the clinical symptoms of aortic coarctation.
4. Is conservative treatment possible with an open ductus arteriosus.
5. Principles of operation of the artificial blood circulation apparatus.
6. What are the types of VSD.
7. What methods of surgery for dmpp You know.
8. Explain the hemodynamics of Fallot's tetrad.
9. What is valvuloplasty?
10. Explain the Eisenmenger syndrome.

**Topic 3.2: coronary heart disease (CHD). (practice).**

Curation of patients in cardiosurgical and rengenodosurgical departments of GUZ UOKB, participation in rounds by the teacher of patients, presence at out-patient Advisory receptions. Presence in the dressing room and operating room when performing manipulations and operations, dressing patients. The solution of situational problems from methodical instructions of Department and test collections. At the beginning of the lesson, control of the initial level of knowledge of students, during the lesson, test control of mastering the material of the lesson and solving situational problems.

*Questions on the topic:*

1. Definition of CHD (WOH).
2. Anatomy of coronary vessels of the heart.
3. The main clinical signs of angina.
4. The concept of unstable angina.
5. Indications for coronary angiography.
6. What are the main causes of MI?
7. What are the clinical forms of MI?
8. What are the complications of acute MI?
9. What are the basic principles of treatment for MI?
10. What are the General principles of emergency myocardial revascularization?
11. What are the principles of thrombolytic therapy?
12. Treatment tactics in emergency conditions; cardiogenic shock, pulmonary edema, PE, cardiac arrhythmias, sudden death?

**Topic 3.3. Varicose disease of the lower extremities. (practice).**

Supervision of patients in the thoracic Department of the goose UOKB, participation in rounds by the teacher of patients, presence at outpatient consultative receptions. Presence in the dressing room and operating room when performing manipulations and operations, dressings of patients. The solution of situational problems from methodical instructions of Department and test collections. At the beginning of the lesson, control of the initial level of knowledge of students, during the lesson, test control of mastering the material of the lesson and solving situational problems.

*Questions to the topic:*

1. How to investigate in the preoperative period in a patient with varicose veins of the lower extremities of the deep venous system?
  1. What is evidenced by a positive sample of Troyanov-Trendelenburg?
  2. What tests can determine the failure of the communicant veins?
  3. What operations are aimed at removing the subcutaneous veins?
  4. What is a syndrome, Paget's, Paget's disease of Schretter?
  5. What factors lead to varicose veins of the lower extremities?
  6. Why bandage the lower limbs with elastic bandages in the postoperative period?
  7. What complications are possible with varicose veins?
  8. What are the indications and contraindications for varicose veins sclerotherapy?
  9. What is the conservative treatment of acute thrombophlebitis?

10. What does prevention of thromboembolic complications in the postoperative period include?

11. What is the essence of Linton's operation? Narita? The Coquette?

**Topic 3.4. Obliterating diseases of arteries. (practice).**

Supervision of patients in the thoracic Department of the goose UOKB, participation in rounds by the teacher of patients, presence at outpatient consultative receptions. Presence in the dressing room and operating room when performing manipulations and operations, dressings of patients. The solution of situational problems from methodical instructions of Department and test collections. At the beginning of the lesson, control of the initial level of knowledge of students, during the lesson, test control of mastering the material of the lesson and solving situational problems.

*Questions on the topic:*

1. What disease is characterized by migratory thrombophlebitis?
2. What surgery is performed for occlusion of the middle third of the femoral artery?
3. Which arteries are affected primarily by obliterating atherosclerosis?
4. What is the essence of the Opel sample?
5. What is Leriche's syndrome?
6. What is Takayasu disease.
7. What diseases contribute to the development of atherosclerosis?
8. Modern x-ray endosurgical techniques in the treatment of obliterating atherosclerosis.
9. What methods of indirect revascularization Do you know.
10. What is an aneurysm of the vessel?
11. What operations are performed for occlusion of the common carotid artery?

**Topic 3.5: Thrombosis and embolism of arteries. (practice).**

Supervision of patients in the thoracic Department of the goose UOKB, participation in rounds by the teacher of patients, presence at outpatient consultative receptions. Presence in the dressing room and operating room when performing manipulations and operations, dressings of patients. The solution of situational problems from methodical instructions of Department and test collections. At the beginning of the lesson, control of the initial level of knowledge of students, during the lesson, test control of mastering the material of the lesson and solving situational problems.

*Questions on the topic:*

1. What is characteristic for embolism of the femoral artery?
2. What are the most accurate methods for diagnosing pulmonary embolism?
3. In clinic for operative treatment the patient N., 36 years with the combined rheumatic mitral heart defect with prevalence of the stenosis complicated by atrial fibrillation arrived. What are the typical complications may occur in the patient in the preoperative period?
4. The clinic received a 69-year-old patient who had an early myocardial infarction and suffered from atrial fibrillation, who was diagnosed with a femoral artery embolism during the examination. ischemia 0 - degree (total contracture of the limbs). What treatment methods will be optimal in this case?
5. What is the most common cause of embolism of the arteries of the great circle of blood circulation?
6. Why bandage the lower limbs with elastic bandages in the postoperative period?
7. What complications are possible with varicose veins?
8. What does prevention of thromboembolic complications in the postoperative period include?
9. The difference between thrombosis and embolism.
10. Degree of limb ischemia.
11. Modern methods of thrombus and embolectomy.

**Section 4. Diseases of the abdominal cavity**

**Topic 4.1. Peptic ulcer of the stomach and duodenum. Complications: perforation, bleeding. (practice).**

Supervision of patients in the surgical Department of GUZ UOKB, participation in rounds by the teacher of patients, presence at outpatient consultative receptions. Presence in the dressing room and operating room when performing manipulations and operations, dressings of patients. The solution of situational problems from methodical instructions of Department and test collections. At the beginning of the lesson, control of the initial level of knowledge of students, during the lesson, test control of mastering the material of the lesson and solving situational problems.

Questions on the topic:

1. What are the clinical manifestations of peptic ulcer disease?
2. What is the most informative study in peptic ulcer disease?
3. What is the pathogenesis of peptic ulcer disease 12-duodenal ulcer?
4. What is the process of ulceration associated with?
5. What are the indications for surgical treatment of peptic ulcer disease?
6. When is vagotomy indicated?
7. What are the clinical manifestations of dumping syndrome?
8. What are the complaints of ulcerative bleeding?
9. What post-resection syndromes do you know?
10. What methods are used to treat anastomosis after gastric resection?
11. Name the types of gastric resection.
12. What operations are indicated for uncomplicated ulcer of the 12th intestine?
13. Where is the most common perforation of the ulcer?
14. Surgical anatomy of the esophagus, stomach, 12-duodenum.
15. Methods of investigation of the gastrointestinal tract. FGDs.
16. Peptic ulcer disease duodenal ulcer complicated by bleeding
17. Peptic ulcer disease duodenal ulcer complicated by perforation.

**Topic 4.2: Complicated forms of peptic ulcer disease. Penetration. Stenosis. Malignization. (practice).**

Supervision of patients in the surgical Department of GUZ UOKB, participation in rounds by the teacher of patients, presence at outpatient consultative receptions. Presence in the dressing room and operating room when performing manipulations and operations-dressings of patients. The solution of situational problems from methodical instructions of Department and test collections. At the beginning of the lesson, control of the initial level of knowledge of students, during the lesson, test control of mastering the material of the lesson and solving situational problems.

*Questions to the topic:*

1. What is the optimal operation for subcompensated ulcerative stenosis of the pylorus
2. What are the main clinical symptoms of penetration?
3. How to diagnose penetration?
4. How to verify malignization stomach ulcers?
5. How to prepare a patient for surgery for gastric stenosis of ulcerative origin?
6. The most common causes of recurrent gastroduodenal bleeding
7. What are the characteristic signs of pyloric stenosis?

**Topic 4.3: Acute and chronic appendicitis. (The form of the practical activity).**

Supervision of patients in the surgical Department of GUZ UOKB, participation in rounds by the teacher of patients, presence at outpatient consultative receptions. Presence in the dressing room and operating room when performing manipulations and operations, dressings of patients. The solution of situational problems from methodical instructions of Department and test collections. At the beginning of the lesson, control of the initial level of knowledge of students, during the lesson, test control of mastering the material of the lesson and solving situational problems.

*Questions on the topic:*

1. The role of the ileocecal valve in the simulation of acute appendicitis clinic in tumors of the left half of the colon?
2. Features of acute appendicitis in the medial localization of the process
3. Phlegmon retroperitoneal space due to acute appendicitis develops in what its location?
4. What distinguishes acute appendicitis and perforation of ulcers
5. What is important in the differential diagnosis of acute appendicitis and acute gynecological diseases?
6. Pain in acute appendicitis often can not be localized in the right iliac region as a result of what?
7. What are the symptoms of acute appendicitis?
8. What is decisive in the differential diagnosis of acute appendicitis with impaired ectopic pregnancy?
9. What is a contraindication to emergency appendectomy?
10. What is the optimal length of the cutaneous incision in an adult appendectomy?
11. How is appendectomy performed in a typical picture of acute appendicitis?

12. What is the main symptom that allows you to diagnose the pelvic location of an inflamed Appendix?
13. For what form of inflammation of the wormlike process is characterized by its thickening with fibrin overlays on the serous cover?

**Topic 4.4. Complications of appendicitis. (practice).**

*Questions on the topic.*

1. What complications can be expected in the first day after appendectomy?
2. Which form of acute appendicitis the development of pylephlebitis most likely?
3. What causes the development of caecal fistula after appendectomy?
4. Complications of acute appendicitis. Diagnosis, treatment.
5. Indications and stages of retrograde and retrograde appendectomy.
6. Appendicular infiltration. Appendicular abscess. Etiopathogenesis. Clinic. Diagnostics. Treatment.
7. Douglas space abscess. Clinic, diagnosis, treatment.

**Topic 4.5: Acute intestinal obstruction. (practice).**

Supervision of patients in the surgical Department of GUZ UOKB, participation in rounds by the teacher of patients, presence at outpatient consultative receptions. Presence in the dressing room and operating room when performing manipulations and operations, dressings of patients. The solution of situational problems from methodical instructions of Department and test collections. At the beginning of the lesson, control of the initial level of knowledge of students, during the lesson, test control of mastering the material of the lesson and solving situational problems.

*Questions to the topic:*

1. What is used to eliminate the "fecal blockage" in Hirschsprung's disease?
2. When is conservative treatment of acute intestinal obstruction used?
3. What kind of obstruction refers to the inversion of the intestine?
4. In the study of a patient with acute intestinal obstruction, positive symptoms of Cege-Manteuffel and Obukhov hospital were established. For what kind of obstruction is this characteristic?
5. What pains are characteristic of obstructive intestinal obstruction?
6. What are the indications for surgery for dolichosigma?
7. What are the x-ray signs of acute intestinal obstruction?
8. What can be the consequence of dynamic intestinal obstruction?
9. What are the main clinical symptoms of obstructive bowel obstruction?
10. What kind of obstruction is intussusception?
11. What operation is indicated for nodulation, infringement of the intestine and inversion?
12. How much should we retreat from the border of necrosis with a non-viable loop of the small intestine?
13. A sign of what kind of obstruction can be bloody discharge from the rectum?
14. The more often colonic obturation obstruction is caused?
15. What contributes to the development of strangulation intestinal obstruction?
16. What is the main cause of paralytic intestinal obstruction?
17. How to treat paralytic intestinal obstruction?
18. Where is the most often localized intussusception?
19. What explains the appearance of "splash noise" in acute intestinal obstruction?
20. What are the signs of non-viability of the intestine in acute intestinal obstruction?
21. With what layer begin necrotic changes in the wall of the strangulated intestine?

**Topic 4.6 housing. Acute and chronic cholecystitis. (practice).**

Supervision of patients in the surgical Department of GUZ UOKB, participation in rounds by the teacher of patients, presence at outpatient consultative receptions. Presence in the dressing room and operating room when performing manipulations and operations, dressings of patients. The solution of situational problems from methodical instructions of Department and test collections. At the beginning of the lesson, control of the initial level of knowledge of students, during the lesson, test control of mastering the material of the lesson and solving situational problems.

*Questions to the topic:*

1. What is intraoperative cholangiography used for in cholecystectomy?
2. What are the symptoms of gallbladder perforation?
3. What contributes to stone formation in the gallbladder?

4. What is the most common laparoscopic surgery for gallstones?
5. What are the indications for a special intraoperative examination of the biliary tract?
6. When do enlarge painful gallbladder, positive symptoms of Ortner, Obratsov, Murphy, Kerr occur?
7. What usually begins with acute cholecystitis?
8. What is the main method for the study of patients with uncomplicated cholecystitis?
9. How much is the normal width of the choledochus?
10. How to treat a patient with jaundice on the background of choledocholithiasis?
11. What methods are used to detect choledocholithiasis?
12. What complications are possible in acute calculous cholecystitis?
13. What is the most common cause of mechanical jaundice?
14. What combination of clinical symptoms corresponds to Courvoisier syndrome?
15. Which of the methods of preoperative examination is the most informative in assessing the pathology of the biliary tract?
16. A 64-year-old patient was admitted with a clinical picture of acute calculous cholecystitis. On the second day from the moment of admission on the background of conservative therapy, acute pain in the right hypochondrium, spread throughout the abdomen. On examination, the condition is severe, pale, tachycardia. There is a tension of the abdominal muscles and peritoneal phenomena in all its departments. What complication can you think of?
17. In retrograde cholangiopancreatography in a patient with mechanical jaundice revealed prolonged stenosis of the mouth of the choledochus. Which intervention should be preferred?
18. On the 7th day after choledocholithotomy and drainage for Keru drainage fell. No signs of peritonitis. What are Your actions?
19. What is the treatment of acute uncomplicated calculous cholecystitis?
20. What are the indications for emergency surgery for acute cholecystitis?
21. What should I do in order to avoid the complication of a cholecystectomy in terms of infiltration?
22. During the operation for gallstone disease, a wrinkled gallbladder was found, stuffed with stones and the common bile duct expanded to 2.5 cm. What should the patient do?

**Topic 4.7. Acute pancreatitis. (practice).**

Supervision of patients in the surgical Department of GUZ UOCH, participation in rounds by the teacher of patients, presence at outpatient consultative receptions. Presence in the dressing room and operating room when performing manipulations and operations, dressings of patients. The solution of situational problems from methodical instructions of Department and test collections. At the beginning of the lesson, control of the initial level of knowledge of students, during the lesson, test control of mastering the material of the lesson and solving situational problems.

*Questions on the topic:*

1. As a complication of acute pancreatitis exist?
2. What is shown in the detection of edematous pancreatitis and non-stressed gallbladder during surgery?
3. What is the nature of pain in destructive pancreatitis?
4. The patient is 35 years old, entered the clinic with a diagnosis of acute pancreatitis. What test is the most informative test in the enzyme phase of the disease?
5. What is the most common cause of death in destructive pancreatitis?
6. On the 15th day, a patient with destructive pancreatitis retains pronounced phenomena of intoxication, body Temperature 39 C, chills, sweating, leukocytosis, hyperemia of the skin in the lumbar region. Diagnosis?
7. What symptoms are characteristic of the violation of the external secretory activity of the pancreas?
8. Patient 40 years for 10 years suffered from chronic recurrent pancreatitis. During the operation, suspected breast cancer. Your actions?
9. On the 8th day after pancreatic resection, a pancreatic fistula was formed. What method can confirm the postoperative complication?
10. The patient is 70 years old, during the operation, a large cyst of the pancreas was found intimately soldered to the back wall of the stomach. What is the scope of the operation?
11. A patient with chronic pancreatitis with RPH has a stenosis of the Vater's nipple for 0.8 cm. What would you prefer for its treatment?
12. A patient of 50 years complains of pain in the epigastric region, nausea, periodically vomiting.



Gastroduodenoscopy revealed penetrating gastric ulcer, High level of gastrin in the blood. What is the cause of the disease?

13. On the operation for indurative chronic pancreatitis, cancer of the head of the pancreas was detected, the gland is mobile, there are no metastases. What radical operation should be performed?
14. During the operation for mechanical jaundice, a tumor of the head of the pancreas was found, single metastases to the liver. Tactics?
15. What is the name of the symptom-transverse pain resistance of the anterior abdominal wall in the projection of the pancreas in acute pancreatitis?
16. What is the Mayo-Robson symptom? Gray-Turner?
17. What causes the development of flatulence in patients with acute pancreatitis?
18. What is the name of the inability to determine the pulsation of the abdominal aorta in the epigastrium in acute pancreatitis?
19. What corresponds to the detection of laparoscopy serous effusion and plaques of steatonecrosis?
20. What is the main pathogenetic treatment of acute pancreatitis?
21. What is shown in the combination of acute phlegmonous cholecystitis and fatty pancreonecrosis?
22. The most informative method of diagnosis of pancreatic cysts?
23. What is shown in suppurated pancreatic pseudocyst?
24. What is the therapeutic tactics in chronic cholecystopancreatitis?
25. In the pathogenesis of acute pancreatitis can play a role
26. What are the outcomes of acute pancreatitis?
27. What are the causes of acute pancreatitis?
28. How to treat pancreatogenic shock?

## **Section 5. Diseases of the abdominal wall**

### **Topic 5.1: Hernias. (practice).**

Supervision of patients in the surgical Department of GUZ UOCH, participation in rounds by the teacher of patients, presence at outpatient consultative receptions. Presence in the dressing room and operating room when performing manipulations and operations, dressings of patients. The solution of situational problems from methodical instructions of Department and test collections. At the beginning of the lesson, control of the initial level of knowledge of students, during the lesson, test control of mastering the material of the lesson and solving situational problems.

#### *Questions to the topic:*

1. With what it is necessary to differentiate the inguinal hernia heading to the scrotum?
2. What is the upper part of the scarp triangle delimited by?
3. What is Richter's infringement?
4. With what access do you begin the operation with a strangulated inguinal hernia complicated by a violation of intestinal patency and phlegmon of the hernial SAC?
5. Strengthening of the wall of the inguinal canal is shown in direct inguinal hernia?
6. What is retrograde infringement?
7. What should be considered an etiological factor of acquired hernia?
8. In what direction should the hernial gates be dissected with a pinched femoral hernia?
9. What is the doctor's tactic for a strangulated hernia?
10. What should be done when two invariable loops of the small intestine are found in the hernia SAC during surgery for a strangulated hernia?
11. What are the actions of the surgeon after the allocation of the hernial SAC during surgery for a strangulated hernia?
12. What is the lower wall of the inguinal canal?
13. For what hernia is characterized by the presence of a testicle in the hernial SAC?
14. What is the main sign of a sliding hernia?
15. How much retreat in resection of the adductor of the strangulated intestine?:
16. What factors contribute to the occurrence of abdominal hernias?
17. What operations are used for surgical treatment of direct inguinal hernias?
18. What predisposes to the formation of postoperative hernia?
19. What complications during hernia surgery for inguinal hernia are possible?



20. What borders the femoral hernia SAC on the lateral side?
21. What is the surgeon's tactic for spontaneous reduction of a strangulated hernia?
22. Who is more likely to have femoral hernias? Femoral hernias are more common
23. What are the walls of the inguinal canal?
24. What should be resorted to when conducting a differential diagnosis between inguinal-scrotal hernia and dropsy of the testicular membranes?
25. What is the indication for surgery for sliding hiatal hernia?
26. How do hiatal hernias manifest themselves?
27. What is the endoscopic picture of hiatal hernias
28. What hernias are referred to internal?

## Section.6 Peritonitis

### Topic 6.1: Peritonitis. (the form of the practical activity).

Supervision of patients in the surgical Department of GUZ UOCH, participation in rounds by the teacher of patients, presence at outpatient consultative receptions. Presence in the dressing room and operating room when performing manipulations and operations, dressings of patients. The solution of situational problems from methodical instructions of Department and test collections. At the beginning of the lesson, control of the initial level of knowledge of students, during the lesson, test control of mastering the material of the lesson and solving situational problems.

#### *Questions on the topic:*

1. What forms of restricted peritonitis exist?
2. What are the possible causes of pseudoperitoneal syndrome?
3. What is the symptom bljumberga-Shchetkina?
4. What is primary, secondary, tertiary peritonitis?
5. What stages of peritonitis do you know?
6. How is the lavage of the abdominal cavity in case of peritonitis?
7. What are the stages of peritonitis
8. What are the treatments for spilled purulent peritonitis?
9. The consequence of what diseases can be spilled purulent peritonitis?
10. What is characteristic of the late stage of peritonitis?
11. How is the diagnosis of General peritonitis before the operation?
12. Among the complications of acute peritonitis there is shock, sepsis, shock lung, pneumonia. What else can you attribute to the characteristic complications?
13. Specify additional methods of treatment of acute purulent peritonitis used in the postoperative period?
14. The patient is 70 years old, with circulatory insufficiency of II-III degree, there is a picture of spilled peritonitis 5 days ago. What is the treatment tactic?
15. What is the most common cause of peritonitis?
16. What is the clinic of subdiaphragmatic abscess?
17. When sowing peritoneal exudate, the growth of what microorganism is more often noted?
18. What is the tactics of treatment of incomplete unformed fistulas of the colon, opening into the purulent cavity?

## Section 7. Simulation training

### Topic 7.1: developing practical skills using training dummies. (practice).

The list of practical skills required for the development of the educational program on the discipline "Faculty surgery" using the equipment of the Simulation center

Table №5

№	Discipline theme	List of practical skills
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1	Thyroid disease: Endemic, sporadic zit. Diffuse toxic ouse. Thyroiditis and streamion. Thyroid cancer.	Outdoor examination and palpation of the larynx and neck.
2	Lung, pleura and mediastinum diseases: Abscess and lung gangrene. Bronchoectic disease. Pneumothorax. The gnoite pleurisy. Empemium pleura. Lung cancer.	External examination of the chest: auscultation, palpation. Draining and puncture of the pleural cavity.
3	Heart disease: Congenital and acquired heart defects. Ischemic heart disease. Vascular disease: Varicose disease of the lower extremities. Oblaterizing diseases of the arteries. Thrombosis and embolism of the arteries of the lower extremities, pulmonary artery, mesenterial vessels	Cardio-resuscitation measures. Definition of pulsation on the limbs. Stopping external bleeding.
4	Ulcerative disease of the stomach and 12-finger intestine. Complicated forms of ulcer sickness: provesination, bleeding, penetration, stenosis, malignation; stinging ulcers.	Introducing a probe into the stomach.
5	Hernia. Peritonitis.	Intravenous and intramuscular injections. Bladder catheterization with a soft catheter

## 7. LABORATORY WORK (WORKSHOPS)

This type of work is not provided by the curriculum.

## 8. SUBJECTS OF COURSE, CONTROL WORKS, ABSTRACTS

The purpose and objectives of the research abstract: The Formation of students ' General practical (GPC-4) and professional competencies (PC-2).

The content of the abstract should fully disclose the topic: etiology, pathogenesis, modern approaches to the diagnosis and treatment of the disease. In this case, it is necessary to use several sources: monographs, journal articles, guidelines.

The subject of the essay is agreed with the teacher.

### Abstract design

1 title page, title, author, date

2 contents, plan

3 list of references, author and year of publication, link on the Internet (sources not older than 5 years)

4 font Times New Roman, 12, interval 1, narrow margins, align to width, volume from 10 pages

### 8.1. Approximate topics of abstracts:

- Hiatal hernia. Classification. Diagnostics. Surgical treatment.
- Surgical interventions for the correction of portal hypertension. Methods of stopping bleeding from esophageal varicose veins.
- Mini-accesses in surgical interventions on the abdominal organs.
- Modern methods of treatment of spilled purulent peritonitis.
- Endovascular methods of treatment of coronary heart disease.
- Raynaud's disease and syndrome. Clinic, diagnosis and surgical treatment.
- Gastric and colonic esophageal plastic surgery.
- Operations for large and giant ventral hernias.
- Laparoscopic cholecystectomy.
- Post-thrombotic syndrome. Methods of correction of chronic venous insufficiency.
- Pulmonary embolism. Clinic. Diagnostics. Surgical treatment. Prevention.
- Abdominal aortic aneurysm. Clinic. Diagnostics. Surgical treatment.
- Combined methods of treatment of lung cancer.
- Cardiospasm. Clinic. Diagnostics. Surgical treatment.
- Hernioplasty in Liechtenstein is the "gold standard" of hernia sections.
- Remote wave lithotripsy as one of the methods of treatment of GI.

17. Parenteral nutrition. Indications. Preparations. Procedure.
18. Palliative surgery for the tetralogy of Fallot.
19. Cancer of the thyroid gland. Clinic, diagnostics, complex treatment.
20. Acquired heart defects: mitral valve and aortic valve.

## 8.2 educational medical history

The purpose of the writing is to teach the student to collect and analyze patient complaints, medical history, laboratory and instrumental studies in order to recognize the condition or establish the presence or absence of the disease (PC-5).

Requirements to the content, volume and design of the educational history of the disease are set out in the manual "Work on the educational history of the surgical patient", V. K. Ostrovsky, V. I. Midlenko, E. N. Valyka, 2008

## 9. LIST OF QUESTIONS FOR THE EXAM

1. Sporadic goiter. Clinic, diagnosis, treatment.
2. Thyroiditis, strumitis. Clinic, diagnosis, treatment.
3. Diffuse thyrotoxic goiter. Clinic. Conservative and operative treatment.
4. Diffuse-toxic goiter. Clinic. Diagnostics.
5. Toxic adenoma, clinic, diagnosis, treatment.
6. Thyrotoxic crisis. Reasons. Clinic. Diagnostics. Treatment.
7. Endemic, sporadic goiter. Classification of diseases, clinic, diagnosis, treatment.
8. Autoimmune thyroiditis, etiology, clinic, diagnosis, treatment.
9. Complications of thyroid surgery, prevention, treatment.
10. Postoperative hypothyroidism, clinic, diagnosis, treatment.
11. Thyroid cancer, classification, clinic, diagnosis, treatment.
12. Abscess of the lung. Etiology. Classification. Clinic, diagnosis, treatment.
13. Gangrene of the lung. Etiology, clinic, diagnosis, treatment.
14. Bronchiectatic disease. Etiology, clinic, diagnosis, treatment
15. Purulent pleurisy. Etiology, clinic, diagnosis, treatment.
16. Cancer of the lung. Clinic, diagnosis, treatment.
17. Pneumothorax, classification, clinic, diagnosis, treatment.
18. Valvular pneumothorax, clinic, diagnosis, treatment.
19. Spontaneous pneumothorax, clinic, diagnosis and treatment
20. Acute pleurisy. Clinic. Diagnostics. Treatment
21. Bronchiectatic disease. Clinic. Diagnostics. Treatment.
22. Methods of surgical treatment of coronary artery disease.
23. Ventricular septal defect. Clinic, diagnosis, treatment.
24. Atrial septal defect. Clinic, diagnosis, treatment.
25. Patent ductus arteriosus. Clinic, diagnosis, treatment
26. Coarctation of the aorta, clinic, hemodynamics, diagnostics, methods of surgical treatment.
27. The pulmonary artery stenosis, clinical features, hemodynamics, diagnostics, treatment.
28. Stenosis of the aorta. Clinic, hemodynamics, diagnostics, methods of surgical treatment.
29. Surgical methods for the treatment of coronary heart disease.
30. Mitral stenosis and mitral valve insufficiency.
31. Fallot's Tetrad. Clinic, diagnosis, treatment.
32. X-Ray endovascular methods of treatment of coronary heart disease.
33. Surgical techniques of revascularization of the myocardium in ischemic heart disease.
34. Aneurysm of the heart. Clinic, diagnosis, treatment.
35. Varicose veins of the lower extremities. Clinic, diagnosis, treatment.
36. Obliterating atherosclerosis. Clinic, diagnosis, treatment.
37. Obliterating endarteritis. Clinic, diagnosis, treatment.
38. Leriche's Syndrome. Clinic, diagnosis, treatment.

39. Diabetic angiopathy of the vessels of the lower extremities.
40. Raynaud's Disease. Clinic, diagnosis, treatment.
41. Thrombosis of the mesenteric vessels. Reasons. Clinic. Diagnostics. Treatment.
42. Pulmonary embolism. Clinic, diagnosis, treatment.
43. Thrombosis, embolism. Etiology. Pathogenesis. Clinic, diagnosis, treatment.
44. Cancer of the esophagus. Classification, clinic, diagnosis, treatment.
45. Peptic ulcer disease duodenal ulcer complicated by bleeding.
46. Peptic ulcer disease duodenal ulcer complicated by perforation. Treatment.
47. Peptic Ulcer of the stomach & 12-duodenum. Indications for surgical treatment.
48. Methods of surgical treatment of gastric and duodenal ulcer.
49. Gastric ulcer disease complicated by malignancy. Clinic, diagnosis, treatment.
50. Ulcer's disease of stomach & duodenum. Surgical treatment. Preoperative preparation.
51. Mallory-Weiss Syndrome. Clinic, diagnostics, conservative and operative treatment.
52. Peptic duodenal ulcer disease complicated by stenosis. Classification. Clinic. Treatment.
53. Peptic ulcer of the 12-duodenum, complicated by penetration. Clinic, diagnosis, treatment.
54. Diagnostic methods for patients with gastric and duodenal ulcer.
55. Ulcer's disease, complicated by bleeding. Classification. Clinic. Diagnostics.
56. Methods of diagnosis of gastric ulcer and 12-duodenal ulcer.
57. Acute appendicitis. Clinic, differential diagnosis.
58. Features of clinical picture of acute appendicitis in children, pregnant women and senile age.
59. Acute appendicitis. Classification. Clinic. Diagnostics.
60. Acute appendicitis. Operative access. Types of appendectomies.
61. Complications of acute appendicitis. Diagnosis and treatment.
62. Indications and stages of retrograde and retrograde appendectomy.
63. Appendicular infiltrate. Etiopathogenesis. Clinic. Treatment.
64. Chronic appendicitis. Classification. Diagnostics.
65. Chronic appendicitis. Diagnosis and treatment.
66. Abscessing appendicular infiltrate. Clinic. Diagnostics. Treatment.
67. Appendicular infiltrate, clinic, outcomes, treatment
68. Abscess of the Douglas space. Clinic, diagnosis, treatment.
69. Acute intestinal obstruction. Classification.
70. Strangulation intestinal obstruction. Clinic, diagnosis, treatment, prevention.
71. Combined form of intestinal obstruction. Clinic, diagnosis, treatment.
72. Dynamic intestinal obstruction. Kinds. Reasons. Differential diagnosis.
73. Retrograde infringement. Clinic. Diagnostics. Medical tactics.
74. Obstructive intestinal obstruction. Reasons. Clinic. Diagnostics. Treatment.
75. Obstructive intestinal obstruction. Clinic. Treatment.
76. Strangulation intestinal obstruction. Causes, pathogenesis. Clinic, diagnosis, treatment.
77. Preoperative preparation of patients with acute intestinal obstruction
78. Cholelithiasis. Clinic, diagnosis, treatment.
79. Acute cholecystitis. Etiopathogenesis. Clinic, diagnosis, treatment.
80. Methods of surgical treatment of patients with acute cholecystitis.
81. Jaundice. Etiology, clinic, diagnosis, treatment.
82. Methods of diagnostics of patients with GSD.
83. Methods of examination of patients with pathology of the extrahepatic bile ducts.
84. GSD. Clinic. Diagnostics. Treatment
85. Differential diagnosis of acute cholecystitis.
86. Acute pancreatitis. Classification, clinic, treatment.
87. Surgical treatment of acute pancreatitis. Indications, methods of surgical interventions.
88. Complications of acute pancreatitis, indications for surgical treatment.
89. The concept of the hernia. Etiology, pathogenesis, classification.

90. Umbilical hernias. Clinic, diagnostics, treatment
91. Surgical tactics in strangulated hernia.
92. Femoral hernias. Clinic, diagnosis, treatment.
93. Inguinal hernias. Anatomy of the inguinal canal, perineum. Clinic, diagnosis, treatment.
94. Hernia white line of the abdomen. Clinic, diagnosis, treatment.
95. Strangulated hernia. Types of infringements. Clinic. Diagnostics.
96. Postoperative hernias. Reasons. Classification. Clinic.
97. Straight and oblique inguinal hernias. Differential diagnosis.
98. Surgical tactics in treatment of strangulated hernia.
99. Postoperative ventral hernia. Preoperative preparation. Types of hernioplasty, complications.
100. Recurrent hernia. Clinic, diagnosis, treatment.
101. Acute peritonitis. Classification and diagnostics. Principle of treatment.
102. Acute peritonitis. Classification. Clinic

## 10. INDEPENDENT WORK OF STUDENTS

### Form of full-time education

<b>Titles of sections and topics</b>	<b>Type of independent work (<i>study of educational material, problem solving, abstract, report, test work, preparation for the test, exam, etc.</i>)</b>	<b>Volume in hours</b>	<b>Form of control (<i>Checking the solution of problems, abstract, etc.</i>)</b>
<b>Section 1.</b> Thyroid diseases			
<u>Topic 1. 1</u> Endemic, sporadic goiter.	Study of educational materials, work on the abstract, medical history, preparation for the exam.	2	Testing, solving situational problems, abstracts, medical histories
<u>Topic 1. 2</u> Diffuse toxic goiter. Thyroiditis. Strumites.	Study of educational materials, work on the abstract, medical history, preparation for the exam.	4	Testing, solving situational problems, abstracts, medical histories
<u>Topic 1. 3</u> Thyroid cancer.	Study of educational materials, work on the abstract, medical history, preparation for the exam.	6	Testing, solving situational problems, abstracts, medical histories
<b>Section 2.</b> Diseases of the respiratory system			
<u>Topic 2. 1</u> Nonspecific lung diseases.	Study of educational materials, work on the abstract, medical history, preparation for the exam.	2	Testing, solving situational problems, abstracts, medical histories
<u>Topic 2. 2</u> Nonspecific diseases of the pleura.	Study of educational materials, work on the abstract, medical history, preparation for the exam.	4	Testing, solving situational problems, abstracts, medical histories
<u>Topic 2.3</u> Lung Cancer	Study of educational materials, work on the abstract, medical history,	6	Testing, solving situational

	preparation for the exam.		problems, abstracts, medical histories
<u>Topic 2.4.</u> Hernia of the esophageal opening of the diaphragm	Study of educational materials, work on the abstract, medical history, preparation for the exam.	6	Testing, solving situational problems, abstracts, medical histories
<b>Section 3</b> Diseases of the circulatory system			
<u>Topic 3. 1</u> Congenital heart defects	Study of educational materials, work on the abstract, medical history, preparation for the exam.	2	Testing, solving situational problems, abstracts, medical histories
<u>Topic 3. 2</u> coronary heart disease (CHD).	Study of educational materials, work on the abstract, medical history, preparation for the exam.	4	Testing, solving situational problems, abstracts, medical histories
<u>Topic 3. 3</u> Varicose diseases of the lower extremities	Study of educational materials, work on the abstract, medical history, preparation for the exam.	2	Testing, solving situational problems, abstracts, medical histories
<u>Topic 3. 4</u> Obliterating diseases of the arteries.	Study of educational materials, work on the abstract, medical history, preparation for the exam.	2	Testing, solving situational problems, abstracts, medical histories
<u>Topic 3.6</u> Acquired heart defects	Study of educational materials, work on the abstract, medical history, preparation for the exam.	6	Testing, solving situational problems, abstracts, medical histories
<u>Topic 3.7</u> Raynaud's disease	Study of educational materials, work on the abstract, medical history, preparation for the exam.	6	Testing, solving situational problems, abstracts, medical histories
<b>Section 4 Diseases of the abdominal cavity</b>			
<u>Topic 4.8</u> Diseases of the esophagus	Study of educational materials, work on the abstract, medical history, preparation for the exam.	6	Testing, solving situational problems, abstracts, medical histories
<u>Topic 4.9</u> Mellory-Weiss syndrome	Study of educational materials, work on the abstract, medical history, preparation for the exam.	6	Testing, solving situational problems, abstracts, medical histories
<u>Topic 4.10</u> Portal hypertension	Study of educational materials, work on the abstract, medical history, preparation for the exam.	6	Testing, solving situational problems, abstracts, medical histories
<u>Topic 4.11</u> Stomach cancer	Study of educational materials, work on the abstract, medical history, preparation for the exam.	6	Testing, solving situational problems, abstracts,



			medical histories
<u>Topic 4.12</u> Rectal cancer	Study of educational materials, work on the abstract, medical history, preparation for the exam.	6	Testing, solving situational problems, abstracts, medical histories
<u>Topic 4.13</u> Hemorrhoids	Study of educational materials, work on the abstract, medical history, preparation for the exam.	6	Testing, solving situational problems, abstracts, medical histories
<u>Topic 4.14</u> Colon cancer	Study of educational materials, work on the abstract, medical history, preparation for the exam.	6	Testing, solving situational problems, abstracts, medical histories
<b>Section 6 Peritonitis</b>			
<u>Topic 6.1</u> Peritonitis	Study of educational materials, work on the abstract, medical history, preparation for the exam.	2	Testing, solving situational problems, abstracts, medical histories
<b>Section 8 Independent work under the guidance of a teacher</b>			
<u>Topic 8.1</u> Analysis of case histories of supervised patients and protection of abstracts	Study of educational materials, work on the abstract, medical history, preparation for the exam.	4	Testing, solving situational problems, abstracts, medical histories


### Independent work under the guidance of a teacher

Types of extracurricular independent work of students:

- homework and preparation for the current classroom in the framework of theoretical training
- work with recommended mandatory and additional literature;
- writing of written works (the abstract, the history of the disease);
- work with audiovisual educational materials, electronic textbooks, training programs;
- execution of tasks using a computer and the Internet (development of electronic materials on the discipline, remote testing, working with the web-page of the Department, search and development of additional materials, etc.);
- work in the library and / or archive;
- preparation of projects and presentations within the student scientific circle;
- implementation of various forms of independent work during practical training;
- writing problem essays on the subject of the study;
- work with specialized databases;
- use of research resources on the Internet;
- planning, conducting research, writing scientific reports, abstracts, articles;
- preparation for presentations at scientific conferences;

*Forms of control of extracurricular independent work:*

- Management of extracurricular independent work of students in the implementation of opop IS carried out by teachers, leading classes in disciplines, heads of practices and research.
- At the first lesson, the teacher introduces students to the goals, content, types of tasks, labor intensity, deadlines, forms of control and evaluation criteria of extracurricular independent work.
- The teacher exercises systematic control over the progress and results of the HRMS within the hours allotted for the control of independent work.
- Forms of control of extracurricular independent work of the student are determined by the teacher.
- Oral control of the implementation of extracurricular independent work of the student is carried out in the form of a survey in practical classes.
- When checking written works (testing, checking homework, abstracts, abstracts, medical histories), the

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F - work program		

teacher puts points based on the evaluation criteria formulated in the QMS of Ulsu.

- The teacher keeps records of the results of VSRS. The results of VSRS are recorded in the journal of progress. Information about the results of extracurricular independent work of students is brought to the attention of each student with comments from the teacher about the quality of the work performed.

The results of extracurricular independent work of students should be taken into account during the current control.

## 11. Educational and information support of the discipline

### a) List of recommended literature

#### Basic literature

1. Tolkachev K. S. Practical skills in surgery: учебное пособие / К. С. Толкачев, С. В. Соколова. - Иркутск : ИГМУ, 2019. - 71 с. - Текст: электронный // ЭБС "Букап»: [сайт]. - URL: <https://www.books-up.ru/ru/book/prakticheskie-navyki-v-hirurgii-12256766/>
2. Гостищев, В. К. General surgery / The manual. - М.: GEOTAR-Media, 2019. - 220 p. - 220 с. - ISBN 978-5-9704-4984-4. - Текст: электронный // ЭБС "Консультант студента»: [сайт]. - URL: <https://www.studentlibrary.ru/book/ISBN9785970449844.html>

#### Additional literature:

1. Lagoon, M. A. The Course of Faculty (Analitical) Surgery in Pictures, Tables and Schemes / M. A. Lagoon, B. S. Kharitonov, edited by professor S. V. Vertyankin - Москва: ГЭОТАР-Медиа, 2017. - 436 с. - ISBN 978-5-9704-3927-2. - Текст: электронный // ЭБС "Консультант студента»: [сайт]. - URL: <https://www.studentlibrary.ru/book/ISBN9785970439272.html>

#### Educational-methodical:

##### 1. Isaev D. N.

Methodical instructions (guide) for practical work of students in the discipline «Faculty surgery» in the specialties 31.05.01 - General Medicine (training in English) / D.N. Isaev; Ulyanovsk State University, Institute of Medicine and Ecology, Faculty of Medicine. - 2023. - На англ. яз.; Неопубликованный ресурс. - URL: <http://lib.ulsu.ru/MegaPro/Download/MObject/14135>. - Режим доступа: ЭБС УЛГУ. - Текст: электронный.

##### 2. Isaev D. N.

Methodical instructions (guide) for independent work of students in the discipline «Faculty surgery» in the specialties 31.05.01 - General Medicine (training in English) / D.N. Isaev; Ulyanovsk State University, Institute of Medicine and Ecology, Faculty of Medicine. - 2023. - На англ. яз.; Неопубликованный ресурс. - URL: <http://lib.ulsu.ru/MegaPro/Download/MObject/14134>. - Режим доступа: ЭБС УЛГУ. - Текст: электронный.

Agreed:

Leading specialist of the Science Library / *Stadolnikova* / *Смаф* / 28.04.2023  
*The position of a researcher at the Science Library*                      *Name*                      *Signature*                      *Date*

### b) Software

Microsoft Windows OS, Microsoft OfficeStd 2016 RUS


### c) Professional databases, information and reference systems

#### 1. Electronic library systems:

- 1.1 IPRbooks: electronic library system: website / IP Ar Media Group of companies. - Saratov, [2023]. - URL: <http://www.iprbookshop.ru>. - Access mode: for registered users. - Text: electronic.

- 1.2. YURAYT: electronic library system: website / LLC Electronic publisher YURAYT. - Moscow, [2023]. - URL: <https://urait.ru>. - Access mode: for registered users. - Text: electronic.
- 1.3. Student's consultant: electronic library system: website / Poly-techresurs LLC. - Moscow, [2023]. - URL: <https://www.studentlibrary.ru/cgi-bin/mb4x>. - Access mode: for registered users. - Text: electronic.
- 1.4. Doctor's consultant: electronic medical library: website / LLC Higher School of Organization and Management of Healthcare-Comprehensive medical consulting. - Moscow, [2023]. - URL: <https://www.rosmedlib.ru>. - Access mode: for registered users. - Text: electronic.
- 1.5. Big medical library: electronic library system: website / LLC Bukap. - Tomsk, [2023]. - URL: <https://www.books-up.ru/ru/library/>. - Access mode: for registered users. - Text: electronic.
- 1.6. Lan: electronic library system: website / EBS Lan LLC. - St. Petersburg, [2023]. - URL: <https://e.lanbook.com>. - Access mode: for registered users. - Text: electronic.
- 1.7. Znaniy.com: electronic library system: website / Znaniy LLC. - Moscow, [2023]. - URL: <http://znaniy.com>. - Access mode: for registered users. - Text: electronic.
- 2. ConsultantPlus** [Electronic resource]: legal reference system. / LLC "Consultant Plus" – Electron. dan. - Moscow: ConsultantPlus, [2023].
- 3. Databases of periodicals:**
  - 3.1. eLIBRARY.RU: scientific electronic library: website / Scientific Electronic Library LLC. - Moscow, [2023]. - URL: <http://elibrary.ru>. - Access mode: for authorized users. - Text: electronic
  - 3.2. "Grebennikon": electronic library / Publishing center Grebennikov. - Moscow, [2023]. - URL: <https://id2.action-media.ru/Personal/Products>. - Access mode: for authorized users. - Text: electronic.
- 4. National Electronic Library:** electronic library: federal State information system: website / Ministry of Culture of the Russian Federation; Russian State Library - Moscow, [2023]. - URL: <https://нэб.рф>. - Access mode: for users of the scientific library. - Text: electronic.
- 5. Russian education:** federal portal / founder of the FSAOU DPO TSRGOP and IT. - URL: <http://www.edu.ru>. - Text: electronic.
- 6. Electronic library of USU:** module ABIS Mega-PRO / LLC "Date Express". - URL: <http://lib.ulsu.ru/MegaPro/Web>. - Access mode: for users of the scientific library. - Text: electronic.

Agreed:

<u>Lead Engineer</u>	/Shchurenko Y.V. /		/28.04.23
<i>Specialist of IT and Telecom dep</i>	<i>Name</i>	<i>Signature</i>	<i>Date</i>

## 12. MATERIAL AND TECHNICAL SUPPORT OF DISCIPLINE

Lecture halls are equipped with multimedia equipment to provide information to a large audience. Rooms for independent work are equipped with computer equipment with the ability to connect to the Internet and provide access to the electronic information and educational environment, electronic library system. Specialized training rooms of the faculty surgery discipline have individual work places for students. The following equipment is available for practical training:


1. A set of surgical instruments.
  2. Set of radiographs.
  3. The densitometer.
  4. Educational and methodical stand.
  5. Educational and methodical tables.
- Office equipment used in the educational process:

1. Computer (stationary display and unit, laptop)
2. Multimedia complex

In the presence of premises for free use in the URCH (ST. III international, 7): (surgical, thoracic Department), wards, dressing and operating rooms, diagnostic rooms of the basic medical institution - SIH URCH.

## 13. Special conditions for students with disabilities

If necessary, students from among persons with disabilities (at the request of the student) can be

The Ministry of science and higher education of the Russian Federation Ulyanovsk State University	Form	
F - work program		

offered one of the following options for perception of information, taking into account their individual psychophysical characteristics:

- for persons with disabilities: in print large print; in electronic form; in the form of an audio file (the translation of educational materials in audio format); in printed form, in Braille; individual consultations with the involvement of signer (interpreter); individual assignments and consultations;
- for people with hearing impairments: in printed form; in the form of an electronic document; video materials with subtitles; individual consultations with a sign language interpreter; individual tasks and consultations;
- for people with musculoskeletal disorders: in printed form; in the form of an electronic document; in the form of an audio file; individual tasks and consultations.

If it is necessary to use partially or exclusively remote educational technologies in the educational process, the organization of work of teaching staff with students with disabilities in all types of practices is provided in an electronic educational environment, taking into account their individual psychophysiological characteristics.



Developer:

 associate Professor of the Department of faculty surgery/ Isaev D.N  
*Signature* *Post* *Name*

## LIST OF CHANGES of

### Educational plan of discipline «Faculty surgery» 2024

#### Speciality 31.05.01. «General medicine»

№	Content of the change or a link to the attached text of the	Full name of the head of the Department developing the discipline	Signature	Date
1	Introduction of changes to item C) Professional databases, information and reference systems item 11 "Educational, methodological and information support of the discipline" with the design of Appendix 2023	Vozzhennikov A.Y.		31.08.2024
2	Introduction of changes to item A) Recommended Literature item 11 "Educational, methodological and information support of the discipline" with the design of Appendix 2023	Vozzhennikov A.Y.		31.08.2024

**Appendix 2024**

## 11. Educational and information support of the discipline

### a) List of recommended literature

#### Basic literature

1. Tolkachev K. S. Practical skills in surgery: учебное пособие / К. С. Толкачев, С. В. Соколова. - Иркутск : ИГМУ, 2019. - 71 с. - Текст: электронный // ЭБС "Букап": [сайт]. - URL: <https://www.books-up.ru/ru/book/prakticheskie-navyki-v-hirurgii-12256766/>
2. Гостищев, В. К. General surgery / The manual. - М.: GEOTAR-Media, 2019. - 220 p. - 220 с. - ISBN 978-5-9704-4984-4. - Текст: электронный // ЭБС "Консультант студента": [сайт]. - URL: <https://www.studentlibrary.ru/book/ISBN9785970449844.html>

#### Additional literature:

1. Lagoon, M. A. The Course of Faculty (Analytical) Surgery in Pictures, Tables and Schemes / M. A. Lagoon, B. S. Kharitonov, edited by professor S. V. Vertyankin - Москва: ГЭОТАР-Медиа, 2017. - 436 с. - ISBN 978-5-9704-3927-2. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL: <https://www.studentlibrary.ru/book/ISBN9785970439272.html>
2. **Isaev D. N.**  
Methodical instructions (guide) for practical work of students in the discipline «Faculty surgery» in the specialties 31.05.01 - General Medicine (training in English) / D.N. Isaev; Ulyanovsk State University, Institute of Medicine and Ecology, Faculty of Medicine. - 2023. - На англ. яз.; Неопубликованный ресурс. - URL: <http://lib.ulsu.ru/MegaPro/Download/MObject/14135>. - Режим доступа: ЭБС УлГУ. - Текст: электронный.



### Educational-methodical:

#### 1. Isaev D. N.

Methodical instructions (guide) for independent work of students in the discipline «Faculty surgery» in the specialties 31.05.01 - General Medicine (training in English) / D.N. Isaev; Ulyanovsk State University, Institute of Medicine and Ecology, Faculty of Medicine. - 2023. - На англ. яз.; Неопубликованный ресурс. - URL: <http://lib.ulsu.ru/MegaPro/Download/MObject/14134>. - Режим доступа: ЭБС УЛГУ. - Текст: электронный.

Agreed:

Leading specialist of the Science Library / Stadolnikova / Смаф / 26.04.2024  
*The position of a researcher at the Science Library*                      *Name*                      *Signature*                      *Date*

#### b) Software

Microsoft Windows OS, Microsoft OfficeStd 2016 RUS

#### c) Professional databases, information and reference systems

##### 1. Electronic library systems:

- 1.1 IPRbooks: electronic library system: website / IP Ar Media Group of companies. - Saratov, [2024]. - URL: <http://www.iprbookshop.ru>. - Access mode: for registered users. - Text: electronic.
- 1.2 YURAYT: electronic library system: website / LLC Electronic publisher YURAYT. - Moscow, [2024]. - URL: <https://urait.ru>. - Access mode: for registered users. - Text: electronic.
- 1.3 Student's consultant: electronic library system: website / Poly-techresurs LLC. - Moscow, [2024]. - URL: <https://www.studentlibrary.ru/cgi-bin/mb4x>. - Access mode: for registered users. - Text: electronic.
- 1.4 Doctor's consultant: electronic medical library: website / LLC Higher School of Organization and Management of Healthcare-Comprehensive medical consulting. - Moscow, [2024]. - URL: <https://www.rosmedlib.ru>. - Access mode: for registered users. - Text: electronic.
- 1.5 Big medical library: electronic library system: website / LLC Bukap. - Tomsk, [2024]. - URL: <https://www.books-up.ru/ru/library/>. - Access mode: for registered users. - Text: electronic.
- 1.6 Lan: electronic library system: website / EBS Lan LLC. - St. Petersburg, [2024]. - URL: <https://e.lanbook.com>. - Access mode: for registered users. - Text: electronic.
- 1.7 Znanium.com: electronic library system: website / Znanium LLC. - Moscow, [2024]. - URL: <http://znanium.com>. - Access mode: for registered users. - Text: electronic.

**2. ConsultantPlus** [Electronic resource]: legal reference system. / LLC "Consultant Plus" – Electron. dan. - Moscow: ConsultantPlus, [2024].

##### 3. Databases of periodicals:

3.1 eLIBRARY.RU: scientific electronic library: website / Scientific Electronic Library LLC. - Moscow, [2024]. - URL: <http://elibrary.ru>. - Access mode: for authorized users. - Text: electronic

**4. National Electronic Library**: electronic library: federal State information system: website / Ministry of Culture of the Russian Federation; Russian State Library - Moscow, [2024]. - URL: <https://нэб.рф>. - Access mode: for users of the scientific library. - Text: electronic.

**5. Russian education**: federal portal / founder of the FSAOU DPO TSRGOP and IT. - URL: <http://www.edu.ru>. - Text: electronic.

**6. Electronic library of USU**: module ABIS Mega-PRO / LLC "Date Express". - URL: <http://lib.ulsu.ru/MegaPro/Web>. - Access mode: for users of the scientific library. - Text: electronic.

Agreed:

Lead Engineer / Shchurenko Y.V. / [Signature] / 26.04.24  
*The position of the worker of*                      *Name*                      *Signature*                      *Date*  
*IT&Telecommunication Department*