



Ministry of science and high education RF	Form	
Ulyanovsk State University		
F-Educational plan of the discipline		

**APPROVED BY**

by the decision of the Academic Council of the USU  
Institute of Medicine, Ecology and Physical Culture  
17.05.2023, Record No №9/250

Chairman Mashin V.V.

  
(Signature, Name)

«17» May 2023.

**EDUCATIONAL PLAN**

Discipline	Surgery for General Practitioners
Faculty	Medical faculty of T.Z. Biktimirov
Department	Hospital surgery, anesthesiology, resuscitation, urology, traumatology and orthopedics
Course	6

Direction (specialty) 31.05.01 General medicine

the code of the direction (specialty), full name

Orientation (profile/specialty) not provided

full name

Form of training \_\_\_\_\_ full-time \_\_\_\_\_

full-time, part-time, part-time (specify only those that are being implemented)



Date of introduction into the academic process at USU «01» September 2023


Revised at the Department meeting, Record No. 1 of 30 «08» 2024

Revised at the Department meeting, Record No. \_\_\_\_\_ of \_\_\_\_\_ « \_\_\_\_\_ » 20 \_\_\_\_\_

Information about developers:

Initials	Abbreviation of the department	Degree, scientific rank
Marakaev Damir Khamzievich	Hospital surgery, anesthesiology, resuscitation, urology, traumatology and orthopedics	MD, Associate Professor

Agreed	Agreed
Head of department of hospital surgery, anesthesiology, resuscitation, urology, traumatology and orthopedics, developing A discipline	Head of the graduating Department of Hospital Therapy
 _____ Signature /V.I. Midlenko/ Full name «17» May 2023 г.	 _____ Signature /M.A. Vize-Khripunova/ Full name «17» May 2023 г.

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## 1. OBJECTIVES AND AIM OF LEARNING THE DISCIPLINE:

Objectives of mastering the discipline: The aim of mastering the academic discipline "Surgery for General Practitioners" is: the formation of students' elements of clinical medical thinking, stereotypes of a complex of necessary additional examination methods, the main provisions of conservative therapy and the principles of surgical treatment, resulting from the theoretical and practical study of emergency surgical diseases abdominal cavity.

The process of mastering the discipline "Surgery for General Practitioners" is aimed at the formation of general professional (OPK-9) and professional competencies (PC-5, PC-6, PC-8, PC-11).

The tasks of mastering the discipline are to ensure the assimilation of the program by the students on modern diagnostic and therapeutic technologies in abdominal surgery on the basis of the knowledge gained at the departments of the initial courses;

- to develop students' scientific understanding of the relationship between the structure, function of organs and the human system, depending on environmental conditions;
- to teach students the methods of clinical examination of patients with surgical pathology, correctly formulate a diagnosis and choose treatment and tactical measures;
- to teach to develop a diagnostic algorithm using modern methods for abdominal surgical diseases;
- to educate ethical standards of behavior in the clinic, respect for colleagues and patients, respect for colleagues and patients.

## 2. PLACE OF THE SUBJECT IN THE STRUCTURE OF GEP:

Discipline B1.V.DV.2.2 "Surgery for General Practitioners" refers to the discipline of the choice of the variable part.

Mastering the discipline is based on knowledge, skills and abilities formed by previous disciplines and practices:

### **History of medicine:**

knowledge: outstanding figures in medicine and health care, outstanding medical discoveries, the impact of humanistic ideas on medicine; skills: to analyze and evaluate the contribution of prominent domestic medical and health workers to the development of methods for diagnosing diseases of internal organs; skills: own the tool for fostering patriotism and civic responsibility.

### **Bioethics:**


knowledge: teaching about the health of the child and adult population, methods of preserving it, the doctor-patient relationship; moral and ethical standards, rules and principles of professional medical behavior, the rights of the patient and doctor, the basic ethical documents of international and domestic professional medical associations and organizations; skills: protect the civil rights of doctors and patients; skills: moral and ethical argumentation;

### **Psychology and pedagogy:**

knowledge: the main directions of psychology, general and individual characteristics of the psyche of an adult, psychology of the individual and small groups; skills: to build and maintain working relationships with other team members; skills: public speaking, conducting discussions and round tables, skills of informing patients in accordance with the requirements of the rules of "informed consent";

### **Latin language:**

knowledge: basic medical and pharmaceutical terminology in Latin; skills: use at least 900 terminological units and terminological elements; skills: reading and writing in Latin of clinical and pharmaceutical terms and prescriptions;

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Medical informatics: knowledge: theoretical foundations of informatics, collection, storage, processing, transformation, dissemination of information in medical and biological systems, the use of information computer systems in medicine and healthcare; skills: the use of educational, scientific, popular science literature, the Internet for professional activities; statistical processing of experimental data; skills: basic information transformation technologies: text, spreadsheet editors, Internet search;

**Chemistry:**

knowledge: the structure and biochemical properties of the main classes of biologically important compounds, the main metabolic pathways of their transformation; safety rules and work in chemical laboratories, with reagents, devices; skills: use of chemical equipment; skills: compliance with safety measures when working in chemical laboratories.

**Biology:**

knowledge: general laws of the origin and development of life; human anthropogenesis and ontogenesis; laws of genetics, its importance for medicine; patterns of heredity and variability in individual development as the basis for understanding the pathogenesis and etiology of hereditary and multifactorial human diseases; skills: use physical and biological equipment, work with magnifying equipment (microscopes, optical and simple loupes); draw up a family pedigree chart based on patient surveys; skills: determine the type of inheritance of diseases of internal organs.

**Biochemistry:**

knowledge: the chemical and biological essence of the processes occurring in a living organism, at the molecular and cellular levels; structure and biochemical properties of the main classes of biologically important compounds, the main metabolic pathways of their transformation; the role of cell membranes and their transport systems in the metabolism in the body of children and adolescents; safety rules and work in chemical and biological laboratories, with reagents, devices, animals; skills: substantiation of the standard of biochemical laboratory research for various diseases of internal organs; skills: interpretation of the results of the most common laboratory biochemical research methods.

**Human anatomy:**

knowledge: anatomical and physiological features of the structure and development of the human body; skills: to correlate the topography of internal organs with a projection onto the surface of the human body in a clinical study of a patient; skills: determine the projection of internal organs onto the surface of the patient's body.


**Histology, embryology, cytology:** knowledge: the basic laws of development and life of the human body based on the structural organization of cells, tissues and organs; histo-functional features of tissue elements; skill: to analyze the histological state of various cellular, tissue and organ structures of a person; working with magnifying equipment (microscopes, optical and simple loupes); skills: interpret the results of histological examination of biopsy material of normal organs.

**Normal physiology, pathological physiology:**

knowledge: basic physical phenomena and patterns that underlie the processes occurring in the human body; functional systems of the human body, their regulation and self-regulation when exposed to the external environment is normal; skill: orientation in the mechanisms of functional processes in the human body; skills: interpreting the results of normal instrumental and laboratory research methods.

**Hygiene:**

knowledge: the basics of preventive medicine, sanitary and hygienic requirements for the device, organization and mode of operation of hospitals, departments and wards in hospitals; skills: analyze and evaluate the quality of medical care, the health status of the child and adult population, the influence of lifestyle factors, the environment, biological and organization of medical care; to carry out preventive measures with patients to increase the body's resistance to adverse

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environmental factors using various hardening methods; promote a healthy lifestyle; skills: assessment of the health status of the population of different age and sex groups;

#### Microbiology, Virology:

knowledge: classification, morphology and physiology of microorganisms and viruses, their impact on human health, methods of microbiological diagnostics, principles of application of basic antibacterial, antiviral and biological drugs, the basics of preventive measures to prevent infectious diseases; skills: to work with magnifying equipment (microscopes, optical and simple magnifiers) to carry out microbiological and virological diagnostics, to carry out sanitary educational work on hygienic issues; skills: analysis and interpretation of the results of modern microbiological and virological diagnostic methods for successful treatment and prevention.

#### Immunology:

knowledge: the structure and function of the human immune system, its age characteristics, cellular and molecular mechanisms of the development and functioning of the immune system, the main stages, types, genetic control of the immune response, methods of immunodiagnostics; methods for assessing the immune status, indications and principles of its assessment, immunopathogenesis, methods for diagnosing major diseases of the human immune system, types and indications for the use of immunotropic therapy; skills: to characterize and assess the levels of organization of the human immune system, to assess the mediator role of cytokines; substantiate the need for clinical and immunological examination of the patient, interpret the results of assessing the immune status according to level 1 tests; interpret the results of basic diagnostic allergological tests; justify the need for the use of immunocorrective therapy; skills: making a preliminary immunological diagnosis followed by referral to an allergist-immunologist; the basics of medical diagnostic and therapeutic measures for the provision of first medical aid in urgent and life-threatening conditions with immune disorders.

#### Pharmacology:


knowledge: classification and basic characteristics of drugs, pharmacodynamics and pharmacokinetics, indications and contraindications for the use of drugs, side effects; general principles for the preparation of prescriptions and the preparation of prescription drug prescriptions; skills: to analyze the effect of drugs on the basis of their pharmacological properties and the possibility of their use for therapeutic treatment; write out prescriptions for drugs, use various dosage forms in the treatment of certain pathological conditions, based on the characteristics of their pharmacodynamics and pharmacokinetics; use basic antibacterial, antiviral and biological drugs; to evaluate possible manifestations of drug overdose and how to eliminate them; skills: the use of drugs in the treatment, rehabilitation and prevention of various diseases and pathological conditions.

#### General surgery and radiation diagnostics:

knowledge: asepsis and antiseptics, the concept of hospital infection, the structure of a surgical hospital. Diagnostic methods for a surgical patient; skills: examine patients with various traumatic injuries, with a purulent-septic state, identify life-threatening bleeding disorders, apply transport tires, bandages and kerchiefs, administer medications through drains and microirrigators, assess the suitability of blood and its preparations. Before the operation, treat hands, operating field, put on a sterile mask, gloves, gown. Determine on the roentgenogram the presence of a fracture and dislocation, free gas in the abdominal cavity, hydro-pneumothorax; Skills: be proficient in basic first aid treatment for emergencies and life-threatening conditions. Interpret the results of X-ray and ultrasound research methods.

#### Infectious diseases:

knowledge: etiology, pathogenesis of infectious diseases, main clinical manifestations, basic methods of laboratory and instrumental diagnostics used in infectious diseases; basic principles of treatment of infectious diseases and rehabilitation of patients, indications for hospitalization of an

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infectious patient, specific and non-specific prevention of infectious diseases; the structure of the infectious disease service, indications for outpatient treatment of an infectious patient, transportation of an infectious patient to a hospital: rules for isolation during hospitalization of patients, sanitary and hygienic requirements for the device, organization of work and the regime of infectious diseases hospitals, departments, boxes; peculiarities of the organization of work with HIV-infected patients; skills: determine the status of an infectious patient; make a preliminary diagnosis; outline the volume of additional studies to clarify the diagnosis and obtain a reliable result; to carry out differential diagnostics according to the leading clinical syndrome; prescribe adequate etiotropic and pathogenetic therapy; to carry out specific and non-specific prevention of infectious diseases; organize anti-epidemic measures acceptance; skills: interpret the survey, physical examination, clinical examination, the results of modern laboratory and instrumental studies; use an algorithm for diagnosing the most common infectious diseases; an algorithm for choosing drug and non-drug therapy for patients with infectious diseases; implementation of specific and non-specific prevention of infectious diseases; anti-epidemic measures.

#### **Internal medicine propedeutics:**

knowledge: patterns of functioning of individual organs and systems, the main pathological symptoms and syndromes of diseases, methods of objective examination of the patient, modern methods of laboratory, instrumental examination of patients; skills: determine the patient's status: collect anamnesis, interview 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 arterial pulse, etc.); assess the patient's condition in order to make a decision on the need to provide him with medical care; conduct a primary examination of systems and organs; set priorities for solving patient health problems; skills: general clinical examination; interpretation of the results of laboratory, instrumental diagnostic methods, the use of the simplest medical instruments.


#### **Hospital therapy, faculty pediatrics, endocrinology:**

knowledge: etiology, pathogenesis and preventive measures for the most common diseases; modern classification of diseases; clinical picture, characteristics of the course and possible complications of the most common diseases occurring in a typical form in different age groups; diagnostic methods, diagnostic capabilities of methods of direct examination of the patient, modern methods of clinical, laboratory, instrumental examination of patients; criteria for the diagnosis of various diseases; methods of carrying out urgent measures, indications for planned hospitalization of patients; methods of treatment and indications for their use; skills: to make a preliminary diagnosis, to outline the amount of additional studies in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a reliable result; formulate a clinical diagnosis; develop a plan of therapeutic action, taking into account the course of the disease and its treatment; to formulate indications for the chosen method of treatment, taking into account etiotropic and pathogenetic agents, to justify pharmacotherapy in a particular patient; determine the route of administration, regimen and dose of drugs, evaluate the effectiveness and safety of the treatment; use methods of primary and secondary prevention (based on evidence-based medicine) in treatment; skills: correct maintenance of medical records; methods of general clinical examination; interpretation of the results of laboratory, instrumental diagnostic methods; an algorithm for a detailed clinical diagnosis; the appointment of patients with adequate therapeutic treatment in accordance with the diagnosis, the provision of emergency care for life-threatening conditions.

#### **Obstetrics and gynecology:**

knowledge: organization of obstetric and gynecological care to the population, methods of clinical, laboratory and instrumental diagnostics of gynecological diseases, physiological and pathological pregnancy; methods of pregnancy and childbirth; modern methods of planning



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pregnancy, methods of antenatal protection of the fetus and prenatal diagnostics; criteria for assessing the condition of a newborn, criteria for prematurity; methods of managing children with various perinatal pathologies, premature babies; methods of cardiopulmonary resuscitation; skills: diagnostics and management of physiological pregnancy, timely detection of abnormalities during pregnancy, implementation of the algorithm for choosing therapy for pathological pregnancy and gynecological pathology, acceptance of physiological and pathological childbirth, assessment of the condition of the newborn, provision of emergency care in critical conditions of the newborn; skills: interpretation of the results of clinical, laboratory, instrumental methods for diagnosing pregnancy, gynecological diseases; physiological pregnancy, childbirth, assessment of the condition of full-term and premature newborns; use of methods of antenatal protection of the fetus.

#### **Neurology, Medical Genetics and Neurosurgery:**

knowledge: basic neurological syndromes; clinical picture, features of the course and possible complications of the most common neurological diseases; modern methods of clinical, laboratory, instrumental examination of neurological patients; methods of treatment and indications for their use; types of inheritance of diseases and clinical manifestations of hereditary pathology, general characteristics of diseases with hereditary predisposition, general principles and peculiarities of diagnostics of hereditary diseases, causes of origin and diagnostic significance of morphogenetic variants of diseases; congenital anomalies; skills: make a preliminary diagnosis, outline the amount of additional research in accordance with the prognosis of the disease; formulate a clinical diagnosis; develop a therapeutic action plan; justify pharmacotherapy in a particular patient; to conduct antenatal diagnostics of hereditary diseases vanii; skills: correct maintenance of medical records; methods of general clinical examination; interpretation of the results of laboratory, instrumental diagnostic methods; an algorithm for a detailed clinical diagnosis; prescribing adequate therapeutic treatment to patients in accordance with the diagnosis, providing emergency care for life-threatening conditions; study of heredity in humans (cytogenetic method, genealogical method, twin method), analysis of the role of hereditary and exogenous factors in the development of pathological conditions.

#### **Public health and healthcare organization:**

knowledge: the basics of the legislation of the Russian Federation on the protection of public health, basic regulatory and technical documents basic principles of management and organization of medical care to the population; fundamentals of legislation on sanitary and epidemiological welfare of the population, legal foundations of state policy in the field of immunization; social insurance and social security, the basics of the organization of insurance medicine in the Russian Federation; comparative characteristics of health systems in the world; financing of the health system; organization of medical control over the state of health of the population, issues of examination of disability and medical and legal assistance to the population; methods for calculating indicators of medical statistics; the basics of using the statistical method in medical research, in assessing the state of health of the population and the activities of medical organizations; maintenance of standard accounting and reporting medical documentation in medical organizations; organization of work of junior and middle medical personnel in medical organizations; skills: to plan, analyze and evaluate the quality of medical care; use the regulatory documentation adopted in health care, as well as documentation to assess the quality and efficiency of medical organizations; to use the knowledge of the organizational structure, management and economic activities of medical organizations of various types for the provision of medical care to the adult population and adolescents, to analyze the performance indicators of their structural units, to assess the effectiveness of modern medical-organizational and socio-economic technologies in the provision of medical services to patients; skills: correct maintenance of medical records; public health assessments; calculation of indicators of medical statistics; application of the statistical method in medical research, in assessing the health status of the population and the activities of medical organizations.

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Topographic anatomy and operative surgery:

knowledge: on the borderline, orientational, layer-by-layer, systemic, projection, syntopic, skeletotopic, typical and variant anatomy in the age aspect within the studied area, paying special attention to the peculiarities of childhood; on methods and techniques of surgical operations, surgical instruments and apparatus; skills: to teach how to use knowledge about the topographic anatomy of tissues and organs of the human body in medical and diagnostic activities for the choice of rational surgical approaches and types of surgical interventions; skills: use of general-purpose surgical instruments, knowledge of surgical techniques, techniques for performing general surgical procedures and operations.

Anesthesiology, resuscitation and intensive care: knowledge: in the diagnosis, treatment and prevention of emergency conditions; skills: to form medical behavior and teach the basics of clinical thinking; skills that ensure the solution of professional problems and the use of the algorithm of medical activity for the provision of medical care in urgent and life-threatening conditions, for the prevention, diagnosis, treatment and rehabilitation of patients; skills: training in the collection and analysis of information about the patient's health; maintenance of medical records, intensive care of acute respiratory failure, hyperbaric oxygenation, controlled hypothermia, hypotension and hemodilution, prolonged infusion therapy, extracorporeal detoxification methods.

Faculty Surgery, Urology:


knowledge: clinical picture, course features and possible complications of the most common diseases occurring in a typical form in different age groups. Diagnostic methods, diagnostic capabilities of methods of direct examination of a patient with a surgical profile; skills: determine the patient's status: collect anamnesis, conduct a survey, physical examination, assess the patient's condition in order to make a decision about the need to provide him with medical care, conduct an examination of systems and organs. Outline the volume of additional studies in accordance with the prognosis of the disease to clarify the diagnosis and obtain a reliable result. Choose an individual type of care for the patient's treatment in accordance with the situation: primary care, ambulance, hospitalization; skills: master the methods of general clinical examination, interpretation of laboratory results, instrumental diagnostic methods, basic medical measures for providing first aid in urgent and life-threatening conditions.

Educational practice "Nursing":

knowledge: types of sanitization of patients, types of fevers, features of observation and care of patients with diseases of various body systems; skills: sanitizing the patient upon admission to the hospital and during the hospital stay, changing the patient's underwear and bed linen, treating bedsores; caring for patients of various ages, suffering from diseases of various organs and systems, their transportation; thermometry, control of daily urine output, collection of biological material for laboratory research, anthropometry, setting various types of enemas, feeding seriously ill patients; disinfection and pre-sterilization preparation of medical instruments, materials and patient care products; skills: caring for patients, taking into account their age, nature and severity of the disease; caring for seriously ill and agonizing patients.

The results of the study of the discipline are the basis for the study of disciplines: Oncology, Modern aspects of oncology, Surgery for General Practitioners, Palliative medicine.


### **3. LIST OF EXPECTED RESULTS OF INSTRUCTION ON THE SUBJECT (UNIT), CORELATED WITH PLANNED RESULTS OF COMPLETING THE PROGRAM**

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The study of the discipline "Topical issues of hospital surgery" in the framework of the development of the educational program is aimed at developing the following general professional and professional competencies in students:

№ п/п	Competence index	Content of a competence (or a part of it)	The proposed results of the course students are:		
			to know	be able to	masters
1	<b>ОПК-9</b>	Ability to assess morphological and functional, physiological states and pathological processes in the human body for solving professional problems	Etiology, pathogenesis, diagnostics, differential diagnostics, peculiarities of the clinical course, possible complications of the most common diseases of internal organs from a surgical point of view. Functional systems of the human body, their regulation and self-regulation when exposed to the external environment, features of functioning in health and disease.	To assess the functional state of organs and systems in diseases of the surgical profile.	Algorithm for performing the main medical diagnostic procedures. Algorithm for data interpretation of functional research methods in diseases of the surgical profile.
2	<b>ПК-5</b>	Readiness to collect and analyze patient complaints, data from his anamnesis, examination results, laboratory, instrumental, pathological and other studies in order to recognize a condition or establish the presence or absence of a disease	The diagnostic value of the changes identified during the clinical study of the patient, using the methods of laboratory and instrumental diagnostics.	Conduct a survey, physical examination of the patient; interpret the results of laboratory and instrumental diagnostics and use in substantiating a clinical diagnosis.	Methods of clinical research of a patient, interpretation of the results of additional research methods, an algorithm for substantiating a preliminary and clinical diagnosis



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3	<b>ПК-6</b>	The ability to determine in patients the main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with ICD-10	The mechanism of occurrence of clinical symptoms and the principles of their grouping into clinical syndromes, clinical presentation, features of the course and possible complications of the most common diseases of internal organs from a surgical point of view. Modern methods of clinical, laboratory and instrumental diagnostics of patients with diseases of internal organs, necessary for the diagnosis in accordance with the International Statistical Classification of Diseases and Problems Related to Health	To identify and substantiate clinical syndromes, taking into account the identified clinical symptoms and knowledge about the mechanisms of their development. To choose and use in professional activity the possibilities of various methods of clinical and immunological examination and assessment of the functional state of the body for the timely diagnosis of the disease and pathological processes. Prepare medical documentation. Interpret the results of laboratory and instrumental research methods, make a diagnosis according to the International Classification of Diseases based on the data of basic and additional research methods	Methods of general clinical examination (questioning, collection of objective and subjective information) in order to diagnose the main clinical syndromes in diseases of internal organs. Algorithm for setting a detailed clinical diagnosis of patients based on the international classification of diseases
4	<b>ПК-8</b>	Ability to determine the tactics of managing patients with various nosological forms	Basic principles of treatment of diseases of a surgical profile	Develop a patient treatment plan taking into account the course of the disease	Algorithm of principles of treatment of diseases of a surgical profile
5	<b>ПК-11</b>	Readiness to provide emergency	Algorithm for the	Restore the patency of the	Conduct artificial ventilation of the

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		medical care for conditions requiring urgent medical intervention	implementation of the main medical treatment measures for the provision of emergency medical care in urgent and life-threatening conditions.	upper respiratory tract. Eliminate the retraction of the root of the tongue by installing an air duct, tilting the head back, extending the lower jaw.	lungs by the "mouth to mouth", "mouth to nose" method, Ambu fur, indirect heart massage. Diagnose terminal condition and perform cardiopulmonary resuscitation
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As a result of studying the discipline, the student must:

• **Know:**

- Etiology and pathogenesis of typical underlying diseases related to abdominal surgery;
- Clinical symptoms of emergency surgical pathology;
- Differential diagnosis of acute surgical pathology;
- Diagnostic research methods;
- The main provisions of the conservative treatment of acute surgical pathology;
- The main methods of surgical intervention and the timing of surgical treatment for surgical diseases.
- The main endoscopic methods of diagnosis and treatment for surgical diseases.

• **Be able to:**

- carry out a targeted collection of anamnesis for the studied nosological forms of surgical pathology: localization, time of onset, irradiation and intensity of pain, dependence of pain on external causes, frequency of pain occurrence, patient's well-being before the disease, connection of the disease with any factors;
- to conduct an objective examination of systems and organs: the position of the patient, the color and condition of the skin and mucous membranes, expressions of the eyes, face, speech, condition of the lymph nodes, localization of pain, local status;
- to identify the most characteristic symptoms for the studied nosology of surgery;
- issue an outpatient card or medical history in a hospital;
- formulate a clinical diagnosis; develop a plan of surgical actions, taking into account the course of the disease and its treatment;
- formulate indications for the chosen method of treatment, taking into account etiologic and pathogenetic agents, substantiate pharmacotherapy in a particular patient with major pathological syndromes and emergencies, determine the route of administration, regimen and dose of drugs, assess the effectiveness and safety of the treatment;
- make a preliminary diagnosis, outline the amount of additional studies in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a reliable result;
- interpret the results of endoscopic diagnostic methods;
- formulate and substantiate the examination plan and treatment plan for surgical pathology;
- perform dressings after performing operations on the abdominal organs.
- interpret the results of laboratory, instrumental diagnostic methods;

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• **mastered:**

- correct maintenance of medical records;
- before the operation and surgical manipulations, treat hands, the operating field, put on a sterile surgical mask, put on or change sterile gloves, a sterile gown yourself and with the help of the operating nurse;
- an algorithm for a detailed clinical diagnosis;
- the main medical diagnostic and therapeutic measures for the provision of first aid for emergency conditions in surgery;
- assistance in operations for acute appendicitis, hernia, complicated peptic ulcer, acute cholecystitis, acute pancreatitis, acute intestinal obstruction, trauma to the abdominal and thoracic cavity and other surgical pathologies.

#### 4. Volume of the subject

4.1. Volume of the subject in credit points (total):   2   credit points

4.2. On types of academic workload (in hours):


Types of educational work	Course length: <b>72</b> hour (full-time education)	
	Total hours	Term
		Term
1	2	3
contact hours	48	48
Auditory lessons:	48	48
lectures	-	-
laboratory work (laboratory workshop)	Not provided	Not provided
practical classes, seminars	48	48
Independent study	24	24
Formative assessments	Survey, MCQ, solving clinical cases, quiz.	Survey, MCQ, solving clinical cases, quiz.
term paper	Not provided	Not provided
Types of formative assessments (exam, credit)	credit	credit
Course length	72	72

If it is necessary to use partially / exclusively distance educational technologies in the educational process, the slash table indicates the number of hours of teaching staff work with students to conduct classes in a distance format using e-learning.


#### 4.3. Contents of the discipline (module). Distribution of hours on themes and kinds of study.

Number of hours –h

The form of training: full time

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Title and sections and topics	Total hours	Types of Training				
		Auditory lessons			interactiv e classes	Indepen dent study
		lectu res	semin ar	labo ratory wor k		
1	2	3	4	5	6	7
1. Organizational basis of endoscopy. Normative documents on the organization of the endoscopic service in Russia. Questions of medical ethics and deontology.	6	-	6	-	-	-
2. Indications and contraindications for EGD. Preparation for EGD, methods of pain relief for endoscopic examination. Complications of FGDS. Complications of FGDS and ERPHG. FGDS technique. ERPHG technique.	6	-	6	-	-	-
3. Normal endoscopic picture of the esophagus. Inflammatory diseases. Burns of the esophagus. Post-burn narrowing. Phlebeurysm. Tumors of the esophagus. Foreign body Gastroesophageal reflux disease. Etiopathogenesis, clinical picture and endoscopic picture. EGD technique for diseases of the esophagus.	6	-	6	-	-	-
4. Peptic ulcer of the stomach and duodenum.	6	-	6	-	-	-
5. Modern methods of treatment of gastroduodenal bleeding	6	-	6	-	-	-
6. Examination of the stomach. Normal endoscopic picture. Burns of the stomach. Gastritis. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Erosive lesions. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Acute stomach ulcers. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Stages of the disease.	6	-	6	-	-	-
7. Mallory-Weiss syndrome. The reasons for the development of the disease, clinical picture and diagnosis, differential diagnosis. Conservative and surgical treatment.	6	-	6	-	-	-
8. Complications of diseases of the colon	6	-	6	-	-	-


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9 stomach cancer Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Stages of the disease. Small signs of cancer. The main ways of metastasis of gastric cancer. Classification. Clinic, diagnostics, palliative and surgical treatment.	6	-	-	-	-	6
10. Normal endoscopic picture of the duodenum. Duodenal burns. Duodenitis. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Stages of the disease. Diverticulitis. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Disease stages, classification.	6	-	-	-	-	6
11. Technique of fibrocolonoscopy. Fibrocolonoscopy. Indications and contraindications for fibrocolonoscopy. Preparation for fibrocolonoscopy, methods of pain relief for endoscopic examination. Complications of fibrocolonoscopy. FCC methodology. Normal endoscopic picture of the large intestine.	6	-	-	-	-	6
12. Minimally invasive and less traumatic laparoscopic and thoracoscopic operations	6	-	-	-	-	6
TOTAL	72	-	48	-	-	24


## 5. COURSE CONTENT

№ п/п	Topic name	Topic content
1.	Organizational foundations of endoscopy. Normative documents on the organization of the endoscopic service in Russia. Questions of medical ethics and deontology.	<p>Examination and examination of patients with diseases and (or) conditions of the upper gastrointestinal tract, taking into account age-related anatomical and functional characteristics in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p> <p>Rationale for referring patients with diseases of the upper gastrointestinal tract to specialist doctors, if there are medical indications, in accordance with the procedures for the provision of medical care, clinical guidelines</p>




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		<p>(treatment protocols) on the provision of medical care, taking into account the standards of medical care</p> <p>Providing information (at the request of the patient) about the possible consequences of endoscopic examination</p> <p>Obtaining informed consent of the patient for the study</p> <p>Justification of refusal to conduct an endoscopic diagnostic study, informing the attending physician in case of exceeding the risk in relation to risk / benefit. Recording a motivated refusal in an outpatient card or medical history</p> <p>Interpretation and analysis of information received from patients (their legal representatives) with diseases and (or) conditions of the upper gastrointestinal tract</p> <p>Interpretation of the results of examinations, laboratory and instrumental studies of patients with diseases and (or) conditions of the upper part of the gastrointestinal tract</p> <p>Interpretation of the results of examinations by medical specialists of patients with diseases and (or) conditions of the upper gastrointestinal tract</p> <p>Rationale for referral of patients with diseases and (or) conditions of the upper gastrointestinal tract for the provision of medical care in inpatient conditions or in day hospital conditions in the presence of medical indications in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p> <p>Drawing up an opinion taking into account the current International Statistical Classification of Diseases and Related Health Problems (ICD)</p>
2.	<p>Indications and contraindications for EGD. Preparation for EGD, methods of pain relief for endoscopic examination. Complications of FGDS. Complications of FGDS and ERPHG. FGDS technique. ERPHG technique.</p>	<p>Indications for planned FGDS</p> <p>Routine examination can be assigned to a patient with the following complaints:</p> <ul style="list-style-type: none"> <li>• frequent or recurring pain in the epigastric region (under the ribs, in the upper abdomen or in the middle);</li> <li>• heartburn or belching;</li> <li>• swallowing disorders;</li> <li>• attacks of nausea and vomiting;</li> <li>• feeling of heaviness and discomfort in the stomach after eating;</li> <li>• bloating;</li> <li>• deterioration in appetite;</li> <li>• unexplained weight loss in a short period, etc.</li> </ul>

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		<p>EGD is prescribed to a patient if there is a suspicion of the following diseases:</p> <ul style="list-style-type: none"> <li>• gastritis or gastroduodenitis;</li> <li>• peptic ulcer;</li> <li>• duodenal reflux;</li> <li>• stenosis of the duodenum;</li> <li>• varicose veins of the esophagus;</li> <li>• esophagitis;</li> <li>• diverticula of the esophagus;</li> <li>• violation of the patency of the esophagus or stomach;</li> <li>• GERD (gastroesophageal reflux disease);</li> <li>• anemia of unexplained origin;</li> <li>• benign or malignant tumors.</li> </ul> <p>Planned EGD for diagnostic purposes can be prescribed for some diseases of the liver, biliary tract and pancreas or to prepare the patient for abdominal and long-term operations.</p> <p>In addition, the study is carried out during the dispensary observation of patients with chronic diseases (gastritis, peptic ulcer, etc.) or patients who have undergone removal of neoplasms. For preventive purposes, EGD is recommended for all people over 40 years of age to exclude oncological diseases.</p> <p>In a planned manner, FGDS for therapeutic purposes is performed if necessary:</p> <ul style="list-style-type: none"> <li>• administration of drugs through a tube;</li> <li>• removal of stomach polyps;</li> <li>• elimination of stones in the large papilla of the duodenum;</li> <li>• surgical removal of stenosis of the sphincter of Oddi;</li> <li>• treatment of narrowing of the esophagus.</li> </ul> <p>Indications for emergency FGDS</p> <p>As a matter of urgency, endoscopy of the upper digestive tract is performed in the following cases:</p> <ul style="list-style-type: none"> <li>• the need to remove foreign bodies;</li> <li>• to eliminate the focus of gastrointestinal bleeding by targeted application of a hemostatic preparation, ligation or tamponation;</li> <li>• in case of suspicion of acute surgical diseases or complications of ulcerative lesions of the stomach and duodenum.</li> </ul>
3.	<p>Normal endoscopic picture of the esophagus. Inflammatory diseases. Burns of the esophagus. Post-burn narrowing. Phlebeurysm. Tumors of the esophagus. Foreign body Gastroesophageal reflux disease.</p>	<p>Classification of diseases of the esophagus</p> <ol style="list-style-type: none"> <li>1. Malformations. These include atresia, congenital narrowing, congenital idiopathic dilatation, cardiac insufficiency (or chaliasia), doubling of the esophagus, gastric undescendedness.</li> <li>2. Foreign bodies of the esophagus.</li> </ol>

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	<p>Etiopathogenesis, clinical picture and endoscopic picture. EGD technique for diseases of the esophagus.</p>	<p>3. Functional diseases of the esophagus (achalasia of the esophagus, cardiospasm, dyskinesia of the esophagus - esophagospasm).  4. Diverticula of the esophagus.  5. Burns of the esophagus.  6. Benign tumors and cysts of the esophagus.  7. Cancer of the esophagus.</p> <p>Functional diseases  Functional diseases of the esophagus on the pathophysiological substrate include a variety of lesions of the esophagus and its sphincter mechanisms and are manifested in a kind of clinical and radiological picture. The common clinical symptom of these diseases of the esophagus is dysphagia. With cardiospasm at the time of swallowing and relaxation of the esophageal tube, an important function of opening the cardia falls out. Cardiospasm is divided into three stages: the first is an unstable spasm of the cardia, the second is hypertensive and the third is atonic. With a long-term course, cardiac spasm is not inclined to turn into cicatricial stenosis of the cardia, if the disease is not complicated by chemical or thermal damage (alcohol, spicy, salty, sour foods, hot food, etc.), as well as significant tears of the esophageal wall during cardiodilation. This category of patients is treated with a Stark-type metal cardiodilator or pneumatic dilator. Cardiac spasm treatment with a cardiodilator gives satisfactory long-term results, but requires repeated reinforcing sessions. A number of methods of surgical treatment of cardiospasm have been proposed: cardiogastroplasty, cardiomentoplasty, and others. The most widespread operation is BV Petrovsky's operation - plasty of the cardia with a diaphragm flap on the leg.</p> <p>Diverticula of the esophagus  Limited expansion of the lumen of the esophagus in the form of a saccular protrusion of its wall. The classification of diverticula is based on their localization and mechanism of occurrence. In the early stage of diverticulum formation, characteristic symptoms are not observed. Then, as the diverticulum increases (stages II - III), a characteristic clinical picture appears: due to the rapid filling of the diverticulum with food, the esophagus is compressed and dysphagia sets in. To swallow food, patients press on the neck, tilt their head in different directions, make vomiting, etc. When the bag is emptied, there is a noticeable improvement, the patient can again</p>
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	<p>swallow food. However, part of the food remains in the diverticulum, stagnates and decomposes, a fetid odor appears from the mouth, and dyspeptic symptoms are observed.</p> <p>A diverticulum is diagnosed by clinical presentation and mainly by x-ray. Additional data is provided by esophagoscopy.</p> <p>A radical method of treating diverticula is surgical.</p> <p><b>Foreign bodies</b></p> <p>Most often, foreign bodies enter the esophagus by accident, with a hasty meal. In the overwhelming majority, these are various bones, dentures and other items. The clinical picture of the disease depends on the size, shape and nature of the foreign body, on the level of its location and duration of stay in the esophagus, the degree of damage to the esophagus. The simplest, most accessible and completely safe diagnostic method is an x-ray examination of the esophagus - non-contrast radiography and a study with contrast.</p> <p>Where possible, esophagoscopy is used, during which a foreign body can be removed from the esophagus through an esophagoscope.</p> <p><b>With unsuccessful attempts</b></p> <p><b>Digestive tract burns</b></p> <p>Burns of the digestive tract with acids and alkalis are a serious pathology, as evidenced by a high mortality rate (10 - 20%). As a result of ingestion of caustic substances, not only the esophagus and stomach are affected, but also the function and structure of the liver, kidneys, adrenal glands and other organs are impaired due to neurotrophic disorders and intoxication due to resorption of poison, absorption of tissue decay products, and the addition of purulent infection.</p> <p>In the clinical course of burns, three periods are distinguished: acute, asymptomatic (recovery) and the period of outcomes.</p> <p>The acute period, as a rule, within 10 days is manifested by severe pain syndrome, dysphagia, toxemia, fever, disorders of the functions of internal organs.</p> <p>The malosymptomatic (recovery) period begins after the elimination of acute pain syndrome and a decrease in dysphagic disorders by the end of the 2nd - 3rd week after the burn. But this is a period of apparent recovery.</p> <p>The period of outcomes is characterized by the development of persistent consequences of burns and poisoning in the form of cicatricial narrowing of the</p>
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	<p>esophagus, postnecrotic cirrhosis of the liver, chronic esophagitis, mediastinitis, chronic pneumonia, exacerbation of the tuberculous process, persistent functional disorders of internal organs.</p> <p>Household burns of the pharynx and esophagus with various chemicals are quite common. Poisoning with acids and alkalis occurs in both children and adults. Patients require urgent medical attention and appropriate treatment.</p> <p>For this, in p For the first hours after poisoning, the stomach is washed abundantly with warm water (5 - 8 l).</p> <p>In case of poisoning with acids (acetic, hydrochloric, sulfuric, etc.), a 2% solution of ordinary baking soda, burnt magnesia can be used to neutralize. In case of poisoning with alkalis (caustic soda, caustic soda) - a solution of vinegar diluted in half with water, 1% citric acid solution.</p> <p>Narcotic drugs should be prescribed for several days (3-4). In case of violation of cardiac activity, caffeine, cordiamine are administered.</p> <p>It is not recommended to induce a gag reflex, and if it appears, it must be suppressed. An ice pack is placed on the stomach area.</p> <p>Therapeutic measures are carried out taking into account the severity of the poisoning and the general condition of the patient.</p> <p>To combat dehydration of the body and to maintain the protein balance, 5% glucose solution in isotonic NaCl solution (2 - 3 l), polyglucin, blood, plasma, blood substitutes are injected intravenously. The patient is prescribed a complete diet rich in vitamins. Recommend butter, fish oil, milk, cream, raw eggs, olive oil.</p> <p>In order to prevent the development of a secondary infection in the oral cavity, pharynx and esophagus, large doses of antibiotics are prescribed. Care of the oral cavity and pharynx is necessary, for which, in case of acid poisoning, alkaline rinses are prescribed, in case of alkali poisoning - a 2% solution of boric acid.</p> <p>After the general phenomena of intoxication have passed and the acute inflammatory process subsides, further treatment is continued. In milder cases of burns, bougienage of the esophagus or drainage of its lumen with tubes is advisable to start on the 4th - 6th day, in severe cases - on the 8th - 10th day.</p> <p>With the onset of narrowing of the esophagus, patients need to operate. Before proceeding with the operation, the surgeon must know which part of the esophagus is</p>
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		<p>affected, how long the cicatricial narrowing has occurred, and whether the stomach is damaged, since the choice of surgery depends on this.</p> <p>The success of the operation for the formation of an artificial esophagus depends not only on the localization and extent of the cicatricial narrowing, but also on the anatomical features of the vessels feeding the section of the intestine from which the artificial esophagus is formed.</p> <p>The formation of an artificial esophagus is a multi-stage operation and consists of the following points:</p> <ol style="list-style-type: none"> <li>1) the formation of a gastric fistula for temporary nutrition of the patient;</li> <li>2) mobilization and conduction of the intestine to the cervical part of the esophagus;</li> <li>3) connection of the supplied intestine with the esophagus;</li> <li>4) the formation of an anastomosis between the stomach and intestine with simultaneous closure of the gastric fistula.</li> </ol> <p><b>Esophageal carcinoma</b></p> <p>The esophagus is one of the organs frequently affected by cancer; therefore, the problem of esophageal cancer is in the focus of attention of Russian surgeons. One of the earliest and most important symptoms of esophageal cancer is dysphagia (swallowing disorder). It is associated with the direction of tumor growth: with exophytic tumor growth, dysphagia appears relatively faster than with endophytic growth. When collecting anamnesis, attention is drawn to the fact that the emerging disorder of swallowing is slowly but steadily progressing.</p> <p>At the onset of the disease in most patients, the general condition remains satisfactory, although some by the time of the onset of dysphagia, weight loss is found.</p> <p>Other primary local symptoms of esophageal cancer include pain and discomfort behind the breastbone when food is swallowed. This is due to trauma to the inflamed esophageal wall near the tumor and spasm. Early local signs also include a feeling of fullness behind the breastbone when swallowing hot food.</p> <p>When the recurrent nerve grows and is compressed by the tumor, hoarseness appears, indicating an advanced stage of cancer and its localization in the upper esophagus. A common symptom of esophageal cancer of various locations is emaciation and progressive weight loss.</p> <p>In the later stages of tumor development, especially in the presence of metastases, severe anemia, leukopenia,</p>
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		<p>a shift of the leukocyte count to the left, and toxic granularity of neutrophils are noted in the blood. In the early diagnosis of esophageal cancer, a decisive place belongs to X-ray examination. The presence of a spasm in a certain part of the esophagus makes one suspect the presence of a pathological process and obliges to repeat X-ray examinations.</p> <p>According to the X-ray examination, one can judge the extent of the lesion and the localization of the tumor in relation to the walls of the esophagus. In unclear cases, a thorough esophagoscopy examination is indicated.</p> <p>The generally accepted method of surgical treatment of esophageal cancer is the esophageal resection, which is widely used in surgery.</p> <p>Contraindications to radical surgical treatment of esophageal cancer:</p> <ol style="list-style-type: none"> <li>1) distant metastases to the cervical and supraclavicular lymph nodes;</li> <li>2) involvement in the cancerous process of the bronchus, recurrent and phrenic nerves, the trunk of the sympathetic nerve;</li> <li>3) decompensation of cardiovascular activity in connection with organic heart disease and hypertension.</li> </ol> <p>For access to the cardiac stomach and lower stomach The following methods are currently used in the esophagus: pleural, transpleural-peritoneal, peritoneal, transperitoneal-pleural. If the tumor has spread to the fundus of the stomach, a small bowel loop is used to bypass the anastomosis.</p>
4.	Peptic ulcer of the stomach and duodenum.	<p>The morphological substrate of the disease is an ulcer - a deep defect in the mucous membrane. Peptic ulcer disease is a common worldwide disease, which affects mainly young and middle-aged people. Men get sick three times more often than women.</p> <p>Etiology and pathogenesis. There are many theories of the occurrence of peptic ulcer disease (infectious, vascular, mechanical, neurotrophic, etc.). At present, the peptic (from the Greek pepsis - digestion) theory dominates, according to which an ulcer occurs as a result of the action of aggressive peptic factors (hydrochloric acid, pepsin, bile) on the mucous membrane while simultaneously weakening its protective properties (mucous-carbonate barrier). Today, an important role in the development of peptic ulcer disease is assigned to gastric bacteria - <i>Helicobacter pylori</i> and endocrine tumors (see Zollinger-Ellison). The causes of acute mucosal ulcers</p>

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		<p>can be operations and brain injuries, extensive burns, cardiovascular disorders, certain medications (aspirin, indomethacin, diclofenac, etc.), alcohol abuse, stress. Peptic ulcer disease has a cyclical course, expressed in the change of phases of exacerbation (open ulcer) and remission (scar). Exacerbations are usually seasonal in autumn and spring.</p> <p>Classification. Localization distinguishes gastric ulcer and duodenal ulcer (duodenal ulcer). There are acute and chronic ulcers. In terms of size, they are divided into small (up to 0.5 cm in diameter), medium (0.5-1.0 cm), large (1.0-3.0 cm) and giant (more than 3.0 cm).</p> <p>Symptoms. The main symptom of peptic ulcer disease is pain. It occurs either immediately after eating (gastric ulcer), or 1.5-2 hours after eating (duodenal ulcer). The latter is also characterized by hunger and night pains. In addition, various dyspeptic disorders are often observed - nausea, vomiting, heartburn, belching.</p> <p>Complications if stomach surgery is not performed, the patient's life is threatened:</p> <ol style="list-style-type: none"> <li>1. bleeding, the source of which is a blood vessel at the edges or at the bottom of the ulcer. It is accompanied by black tarry stools, vomiting of the "coffee grounds" type;</li> <li>2. perforation (perforation) - the formation of a through defect in the wall of the organ;</li> <li>3. penetration - "ingrowth" of an ulcer into adjacent organs;</li> <li>4. stenosis - narrowing of the outlet of the stomach or duodenum, which prevents the movement of food;</li> <li>5. malignancy - a malignant transformation, characteristic of stomach ulcers.</li> </ol> <p>Diagnostics. X-ray of the stomach, esophagogastroduodenoscopy with biopsy, intragastric pH-metry (rheogastrography).</p> <p>Treatment. Acute ulcers are treated conservatively, and in some cases, surgery for stomach ulcers (stomach surgery) is indicated. Any uncomplicated and newly diagnosed ulcers are also subject to drug treatment.</p>
5.	Modern methods of treating gastroduodenal bleeding	<ol style="list-style-type: none"> <li>1. Classification of gastrointestinal bleeding: <ul style="list-style-type: none"> <li>• ulcerative,</li> <li>• non-ulcer.</li> </ul> </li> <li>2. Etiopathogenesis of bleeding in diseases of the digestive tract.</li> <li>3. Non-ulcer gastrointestinal bleeding: <ul style="list-style-type: none"> <li>• varicose veins of the esophagus (clinical picture, diagnostics, therapeutic tactics, conservative therapy, types of operations),</li> <li>• Mallory-Weiss syndrome (clinical picture,</li> </ul> </li> </ol>


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		<p>diagnostics, conservative therapy, indications for surgery),</p> <ul style="list-style-type: none"> <li>• erosive-hemorrhagic gastritis (therapeutic tactics).</li> <li>• other diseases of the stomach, esophagus and intestines (tumors, polyps, diverticula, ulcerative colitis).</li> </ul> <p>4. Diagnostic and therapeutic endoscopy. 5. General hemostatic measures. 6. Active methods of local hemostasis. 7. Surgical tactics for GCC. Principles of basic surgical operations (gastrotomy, wedge resection of the stomach, vagotomy, resection of the stomach, Tanner's operation). Clinic, diagnosis of gastrointestinal bleeding from the lower gastrointestinal tract. Classification of gastrointestinal bleeding from the lower gastrointestinal tract. Methods for stopping gastrointestinal bleeding from the lower gastrointestinal tract.</p>
6.	<p>Examination of the stomach. Normal endoscopic picture. Burns of the stomach. Gastritis. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Erosive lesions. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Acute stomach ulcers. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Stages of the disease.</p>	<p>Three clinical stages are classified:</p> <ul style="list-style-type: none"> <li>• acute - necrosis of the affected tissues of the stomach wall;</li> <li>• rejection of necrotic areas;</li> <li>• scarring of the surface of the inner wall of the stomach, stenosis of the pyloric region (more often) or of the entire stomach.</li> </ul> <p>The degrees of severity are considered in connection with the damage caused to the tissues of the stomach:</p> <ul style="list-style-type: none"> <li>• first degree burn (catarrhal) - only the surface of the mucous membrane is affected, it is edematous and hypersensitive;</li> <li>• second degree burn (erosive) - the gastric mucosa is completely damaged, it necrotizes and is rejected;</li> <li>• third degree burn (ulcerative) - not only mucosal tissue is damaged, but also deeper layers of the stomach wall, there is a high probability of its perforation and further inflammation of the abdominal cavity;</li> <li>• fourth degree burn (necrotic) - the integrity of the stomach is broken and nearby tissues and organs are damaged.</li> </ul> <p>The severity of pathological changes is determined by the characteristics of the aggressive substance, its amount and duration of exposure, and the presence of contents in the stomach. An important role belongs to the timely provided first aid.</p> <p>Forms Thermal burns of the stomach cause liquid substances heated to boiling point (boiling water, hot oil) to enter it. It is rare enough. First aid consists in cooling the</p>


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		<p>burned mucous membranes - it is necessary that the victim drinks at least a liter of chilled liquid (with ice). Thermal burns of the first degree do not have to be treated in a hospital, competent care of loved ones may be sufficient, salty, spicy and smoked dishes are excluded from the patient's diet. Nevertheless, injuries of the second and, of course, third or fourth degree require mandatory medical supervision.</p> <p>Chemical burns of the stomach are caused by fluids that corrode the epithelium and deeper tissues of the organ walls, for example, acid or alkali.</p> <p>Concentrated acid, getting on the mucous membrane, forms coagulation (dry) necrosis, which protects the tissue from further penetration. If it is precisely known about the ingestion of acid, the patient is given an alkaline solution prepared as follows: dissolve a teaspoon of baking soda in a liter of filtered (boiled) not cold water. Then induce vomiting.</p> <p>The ingress of alkaline substances causes colliquation (wet) necrosis due to the dissolution of protein and saponification of fat, so they freely penetrate deeper and cause more serious damage. But a small amount of alkali that gets into the stomach is neutralized by the acid located there.</p> <p>If it is precisely known about the ingestion of alkali, the patient is given an acid solution. A little acid (acetic, tartaric or citric) is added to a liter of cool boiled water. Then induce vomiting.</p> <p>Burning the stomach with alcohol, like acid, causes coagulation necrosis, which prevents the spread of damage. A burn of the stomach with alcohol is manifested by a typical pain syndrome, lack of taste, weakness and dizziness. First aid is gastric lavage. With such a burn, as a rule, a complete recovery is predicted.</p> <p>A solution of potassium permanganate is used internally in case of poisoning, exclusively strained and pale pink in color. Otherwise, if non-strained particles or its high concentration get in, you can cause a burn of the stomach with potassium permanganate, which leads to dyspeptic symptoms; there is a risk of mechanical asphyxia due to laryngeal edema and shock.</p> <p>Symptoms are manifested as follows: dark brown color of the mucous membrane of the mouth and pharynx and its swelling, in the mouth - severe burning sensation, pain in the retrosternal and epigastric zone. Brown dots (burns) can appear on the skin of the face, neck, chest.</p>
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		<p>Shortness of breath up to suffocation, cyanotic skin and mucous membranes, bloody diarrhea, trembling paralysis.</p> <p>In severe cases, convulsions, burn shock, acute hepatic and renal dysfunction (toxic hepatitis, jaundice, anuria, uremia), collapse. Pregnancy can end in miscarriage.</p> <p>First of all, the stomach is washed with rinsing of the mouth and throat with a solution: for two liters of water - 100 g of three percent hydrogen peroxide and 200 g of three percent vinegar. Washing is done until the wash water is completely discolored. The oral cavity, gums and tongue are wiped with a napkin soaked in the same solution. Be sure to call an ambulance.</p> <p>A burn of the stomach with vinegar 6-9% occurs if it is accidentally swallowed. The severity is proportional to the amount of vinegar ingested. Ingestion of one or two throats usually leads to a minor burn of the esophagus, which passes on its own and without consequences. If you swallow more than 50 g, then in addition to significant burn manifestations, poisoning is likely - being absorbed in the stomach and intestines, vinegar enters the bloodstream and destroys the membranes of erythrocytes. Released from them, hemoglobin disrupts the microcirculation of blood in the kidneys, disrupting their function. Renal failure leads to liver toxicity and dysfunction. The consequence of the use of 200 g of vinegar or more may be the death of the victim.</p> <ul style="list-style-type: none"> <li>• Treatment</li> </ul> <p>Qatar Major damage does not require drug treatment, but it is advisable to see a doctor to clarify the diagnosis and prevent complications. For a more severe burn, specialized medical attention is needed. The further prognosis for recovery, and sometimes the life of the victim, depends on the promptness of its receipt.</p> <p>In case of a burn of the stomach with boiling water, the first aid is a lot of cold liquid (water or milk) and rest. If a chemical aggressor gets inside, the injured person needs specialized medical attention. The ambulance team arriving on call, as a rule, uses a tube for gastric lavage, which is unpleasant, but quite effective. Stomach burn treatment is based on the following principles:</p> <ul style="list-style-type: none"> <li>• the appointment of analgesics to relieve pain;</li> <li>• the appointment of antispasmodic and sedative drugs;</li> <li>• maintenance of normal functions of the heart, respiratory organs and excretions;</li> <li>• measures to take the patient out of shock;</li> </ul>
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	<p>• elimination and / or prevention of intoxication.</p> <p>The doctor prescribes therapeutic treatment schemes individually, according to the clinical manifestations of the development of pathological processes.</p> <p>The fundamental modern way of dealing with the consequences of a chemical burn of the II-IV degree is endoscopic laser photostimulation, in combination with the prescription of drugs that relieve pain, intoxication, inflammation, increase tissue resistance to a lack of oxygen and prevent the development of infection. Endoscopic laser photostimulation is an irradiation of burnt mucous membranes of the esophagus and stomach with a low-energy laser (laser radiation with a wavelength of 0.63 microns at a power density of 10-100 mW). Such treatment can reduce the incidence of cicatricial gastric stenosis.</p> <p>An even more promising method of treatment is endoscopic laser photostimulation with preliminary administration of Mexidol, which enhances its effect due to the fact that laser irradiation improves blood microcirculation at the site of exposure.</p> <p>Mexidol has an active effect that prevents tissue hypoxia. It increases resistance to conditions associated with insufficient oxygenation, including shock, and reduces toxic effects. It is used for intramuscular or intravenous injection. The duration of therapy and the selection of dosage is proportional to the severity of the patient's condition. The daily dosage is no more than 0.8 g. As a rule, patients tolerate Mexidol well. Occasionally, nausea and dry mouth are likely.</p> <p>Contraindicated in hepatic and renal failure, history of allergy to vitamin B6.</p> <p>To prevent triple infection, antibiotics are prescribed, for example, Cefazolin, which has a wide range of antimicrobial effects. The effect is based on the disruption of the process of building the bacterial cell membrane. The drug is used for intramuscular and intravenous injections. Like all antibiotics, it has side effects and is contraindicated in case of allergy to drugs of the cephalosporin group.</p> <p>Anesthesia is carried out with both non-narcotic and narcotic analgesics, such as Omnopon - a complex drug consisting of three narcotic analgesics (morphine, codeine, thebaine) and papaverine, which prevents spastic contractions of the intestinal smooth muscles. Inhibits any painful sensations without turning off consciousness, while maintaining the rest of the sensations.</p> <p>Patients are prescribed subcutaneous injections at a dosage of 10 mg of the drug three to four times a day.</p>
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		<p>May cause nausea, vomiting, and respiratory depression. Long-term use causes drug addiction. Contraindicated in respiratory dysfunction, dystrophy, elderly patients.</p> <p>For the prevention of thrombohemorrhagic syndrome in the burn area, Heparin is prescribed, an anticoagulant that directly acts on blood coagulation factors, blocking thrombin biosynthesis; reducing thrombus formation. It activates the ability of blood to dissolve clots, improves blood circulation in the coronary arteries. The method of administration and dosage of heparin is calculated individually. When using this drug, you need to consider the likelihood of bleeding.</p> <p>Operative treatment</p> <p>The result of burn lesions that have captured a large area and deep layers of tissue can be pyloric stenosis of the stomach or its complete dysfunction, and as a result - dehydration and dystrophy of the patient.</p> <p>Basically, a burn of the stomach is combined with a burn of the esophagus. Often a consequence of the esophageal bougienage procedure is the detection of pathological changes in the stomach.</p> <p>If bougienage is not possible, laparotomy is performed, during which the nature of gastric pathologies and the course of further treatment are determined.</p> <p>In cases of local damage to the stomach (pyloric stenosis), drainage is restored by imposing a gastrostomy. As a rule, a resection is performed - the surgical removal of a part of the stomach in which patency is impaired.</p> <p>With a total burn of the stomach or in an acute period, a jejunostomy is performed (imposition of a fistula on the jejunum) to provide food for pain th. Subsequently, surgery is performed to reconstruct the stomach.</p> <p>Modern surgical techniques make it possible to restore the functions of the upper digestive tract after a burn.</p>
7.	Mallory-Weiss syndrome. The reasons for the development of the disease, clinical picture and diagnosis, differential diagnosis. Conservative and surgical treatment.	<p>Mallory-Weiss syndrome (Mallory-Weiss) is an acute surgical pathology caused by a rupture or longitudinal crack of the esophagus and stomach walls. It is a medical emergency requiring emergency medical attention. The disease mainly occurs in representatives of the stronger sex at the age of 45-60 years old who consume excessive amounts of alcohol. Tearing of the mucous membrane of the digestive tract occurs with a sharp increase in intra-abdominal pressure: with frequent and strong urge to vomit, during the gag reflex, accompanied by bleeding. For the first time, the morphological signs of the disease were described by scientists Mallory and Weiss, based on the results</p>

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		<p>of an autopsy. They discovered the disease in persons with alcoholism.</p> <p>Mallory-Weiss syndrome has another name - "banquet esophagus". Most often, pathology develops in lovers of plentiful feasts. This is one of the most common reasons for hospitalization of patients in a surgical hospital. Clinical signs appear after excessive drinking. According to ICD 10 pathology, the code was assigned K22.6 and the official name was "Gastrointestinal ruptured hemorrhagic syndrome."</p> <p>• Etiology</p> <p>Mallory-Weiss syndrome develops with an increase in intra-abdominal pressure. Causes of pathology:</p> <ul style="list-style-type: none"> <li>• Vomiting triggered by overeating, excessive alcohol intake, "interesting" position of the patient, inflammation of the pancreas or gallbladder,</li> <li>• Hiccups,</li> <li>• Cough,</li> <li>• Lifting weights,</li> <li>• Damage to the esophagus with FGDS,</li> <li>• Diaphragmatic hernia,</li> <li>• Chronic gastritis and esophagitis,</li> <li>• Cirrhosis of the liver,</li> <li>• An attack of epileptic convulsions,</li> <li>• Traumatic injury to the abdomen.</li> </ul> <p>The symptomatology of Mallory-Weiss syndrome is determined by the amount of blood loss and exposure to provoking factors.</p> <p>1. Hematemesis is the main symptom of Mallory-Weiss syndrome, which is persistent vomiting with fresh, not yet coagulated blood. Bright red, scarlet blood in the vomit is a sign of profuse bleeding. Vomiting of "coffee grounds" occurs after the interaction of blood with hydrochloric acid.</p> <p>2. Patients with this ailment complain of constant acute abdominal pain and black feces. Tarry stools - the presence of blood in the stool. Internal bleeding causes the faeces to turn black, shiny, thin, and fetid. Melena is an intermittent symptom of the disease and occurs only after a large loss of blood.</p> <p>3. Patients have pale skin, lethargy, weakness, tachycardia, cool, sticky sweat, tinnitus, darkening and "flies" in the eyes, shortness of breath, weak pulse, drop in blood pressure, fainting, confusion, shock may develop. Sharp pain in the stomach area gradually spreads throughout the abdomen. Symptoms of asthenia are caused by anemia resulting from extensive blood loss.</p> <p>Conservative treatment</p>
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	<p>Therapy for Mallory-Weiss syndrome consists in the use of cold, antacids, coagulants, and probing. In rare cases, bleeding can stop on its own within two to three days.</p> <ul style="list-style-type: none"> <li>• Colloidal and crystalloid solutions are injected intravenously: saline, glucose, Ringer's solution, "Reopolyglucin", albumin.</li> <li>• Antacids neutralize the effect of hydrochloric acid - "Rennie", "Maalox", "Gastal", "Almagel".</li> <li>• Proton pump inhibitors block the production of hydrochloric acid - "Omeprazole", "Nolpaza", "Rabeprazole".</li> <li>• Blood transfusion is given to persons who have lost a lot of blood. Usually red blood cells and fresh frozen plasma are transfused.</li> <li>• "Vasopressin" and "Somatostatin" are prescribed to reduce the blood supply to the mucous membranes</li> <li>• To reduce nausea and the urge to vomit, "Cerucal" is prescribed.</li> <li>• Coagulants of direct action help to stop bleeding - "Vikasol", "Ditsinon".</li> <li>• The Blackmore tube is inserted into the stomach, the lower balloon is fixed, and the upper balloon, which is in the lower esophagus, is inflated. Mechanical compression of the affected vessels provides a stable hemostatic effect.</li> </ul> <p>Endoscopy</p> <p>There are several endoscopic treatments for the disease:</p> <ol style="list-style-type: none"> <li>1. The place of bleeding is injected with adrenaline or norepinephrine. Due to a sharp spasm of blood vessels, a hemostatic effect occurs.</li> <li>2. Argon plasma coagulation - cauterization of a bleeding vessel with argon. This is a technically complex, modern and highly effective method of treatment that allows you to achieve stable hemostasis. It is used for ongoing bleeding of moderate to low intensity. With intense bleeding, argon plasma coagulation is the final stage of endoscopic treatment, which is preceded by injection techniques.</li> <li>3. Electrocoagulation is no less effective method, especially in combination with the administration of adrenaline. The temperature effect on the bleeding vessel is carried out using alternating or direct high-frequency electric current.</li> <li>4. Cryotherapy on the source of bleeding, the use of laser irradiation.</li> <li>5. Introduction to the lesion focus of sclerosing substances allows to stop bleeding. "Ethoxysclerol" -a</li> </ol>
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		<p>new and very effective drug that is used for the procedure of hardening of bleeding vessels. The action of sclerosants is based on the formation of an intravascular thrombus, thickening of the intima and the appearance of fibrous tissue.</p> <p>6. Ligation and clipping of vessels - the imposition of a ligature or metal clip on a bleeding vessel.</p> <p>In the absence of the effect of conservative and endoscopic therapy, in the presence of deep ruptures and frequent relapses, they switch to surgical intervention. A midline laparotomy, gastrotomy is performed, bleeding vessels are sutured, and the mucous membrane at the rupture site is sutured. Surgical treatment is the only possible way to save a patient's life in case of profuse and heavy bleeding.</p>
8.	Complications of diseases of the colon	<p>The main clinical manifestations of diseases of the colon;</p> <p>1 Abdominal pain - persistent or cramping with irradiation to the lumbar region, rarely to the supraclavicular region.</p> <p>Constant pain is more characteristic of the inflammatory process, cramping - with narrowing of the lumen.</p> <p>2 Discharge of mucus and pus - can be noted only during bowel movements or is permanent. Admixture of mucus and pus to feces is usually observed with HR. and about. proctosigmoiditis, ulcerative colitis, Crohn's disease, villous tumors, sigmoid colon cancer.</p> <p>3 Bleeding, obvious or mixed with stool. The more proximal the bleeding source is, the more the more homogeneous is the admixture of blood to the feces and the darker its color. Profuse bleeding is rare and more common with diverticulosis, less often with ulcerative colitis and Crohn's disease.</p> <p>4 Anemia - is hypochromic, more often with the defeat of tumors of the right sections of the colon</p> <p>5 Constipation is stool retention from several days and weeks as a symptom of functional and organic lesions. If a functional constipation, then emit atonic and spastic constipation, which occur with less or more severe pain syndrome. With organic narrowing of the colon - constipation precedes pain and is one from symptoms of partial intestinal obstruction.</p> <p>6 Colon obstruction is a symptom of impaired passage of contents through the colon. Partial or complete intestinal obstruction</p> <p>7 Bloating - possible with constipation, as well as with</p>




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		<p>congenital or acquired enzyme deficiency, dysbiosis</p> <p>8 Diarrhea is a symptom of a number of non-infectious diseases of the colon (colitis, diffuse polyposis)</p> <p>9 Tenesmus - frequent false urge to defecate, exhausting patients, may be accompanied by perianal maceration</p> <p>skin, cracks, erosion. This is a response to inflammation of the sensory zone of the mucous membrane of the lower ampullar region.</p> <p>rectum</p> <p>Irritable bowel syndrome criteria (A.N. Okorokov, 1999):</p> <ul style="list-style-type: none"> <li>- pain or discomfort in the abdomen (pain decreases after bowel movements, accompanied by changes in frequency and stool consistency)</li> <li>- change in stool frequency (1 or more 3 times a day or less than 3 times a week)</li> <li>- changing the shape of the chair</li> <li>- violation of the passage of the stool (tension, imperative urge, feeling of incomplete emptying of the intestines)</li> <li>- secretion of mucus</li> <li>- bloating</li> </ul>
9.	<p>Stomach cancer. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Stages of the disease. Small signs of cancer. The main ways of metastasis of gastric cancer. Classification. Clinic, diagnostics, palliative and surgical treatment.</p>	<p>a common part</p> <p>Stomach cancer is a malignant neoplasm of the stomach, a tumor originating from the epithelium of the gastric mucosa.</p> <p>Stomach cancer is a polietiologic disease, but it is believed that Helicobacterpylori plays an important role in its occurrence and development. Clinical manifestations include: loss of appetite, stomach obstruction, and bleeding. Diagnosed by endoscopy with biopsy, x-ray, computed tomography and ultrasound. Treatment is usually surgery, and chemotherapy provides temporary improvement. The long-term prognosis is usually poor.</p> <ul style="list-style-type: none"> <li>• Epidemiology of stomach cancer</li> </ul> <p>In many countries, stomach cancer is the most common malignant tumor.</p> <p>Stomach cancer accounts for about 15.5% of all malignant neoplasms and 20.8% of deaths from malignant neoplasms. It is ranked 4th in prevalence after lung, breast and colorectal cancer.</p> <p>Adenocarcinoma of the stomach is in second place as the cause of death from cancer in the world. In 2001, 850,000 people died of stomach cancer, including 522,000 men and 328,000 women. According to data obtained by the World Health Organization, the most</p>

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	<p>common cancers worldwide (excluding non-melanoma skin tumors) are lung cancer (12.3%), breast cancer (10.4%), and colon cancer (9.4%). Among the causes of death in cancer, the first three places are taken by lung cancer (17.8%), stomach cancer (10.4%) and liver cancer (8.8%).</p> <p>There are significant geographic differences in the incidence of this disease. The highest mortality rates were recorded in Chile, Japan, South America and the countries of the former USSR.</p> <p>Men suffer from stomach cancer 2 times more often than women.</p> <p>The incidence rate increases with age. The most affected age is after 60 years (average 63 years). In recent decades, there has been a downward trend in the incidence of stomach cancer.</p> <ul style="list-style-type: none"> <li>• Classifications of stomach cancer <ul style="list-style-type: none"> <li>o By localization: <ul style="list-style-type: none"> <li><input type="checkbox"/> antrum - 60-70%.</li> <li><input type="checkbox"/> for small curvature - 10-15%.</li> <li><input type="checkbox"/> cardiac department - 8-10%.</li> <li><input type="checkbox"/> on the anterior and posterior walls of the stomach - 2-5%.</li> <li><input type="checkbox"/> for greater curvature - 1%.</li> <li><input type="checkbox"/> at the bottom of the stomach - 1%.</li> </ul> </li> <li>o In appearance: <ul style="list-style-type: none"> <li><input type="checkbox"/> polyposis (mushroom).</li> <li><input type="checkbox"/> saucer-shaped.</li> <li><input type="checkbox"/> diffuse.</li> <li><input type="checkbox"/> ulcerative infiltrative.</li> </ul> </li> <li>o By microscopic picture: <ul style="list-style-type: none"> <li><input type="checkbox"/> undifferentiated. Small and large cell carcinoma.</li> <li><input type="checkbox"/> differentiated. Glandular cancer (adenocarcinoma), fibrous cancer (skirr), mixed and rare forms.</li> </ul> </li> </ul> </li> <li>• Stages of stomach cancer <ul style="list-style-type: none"> <li>o The first stage is a tumor up to 3 cm long, invading the mucous membrane and submucosa. There are no lymph node metastases.</li> <li>o The second stage is a tumor more than 3 cm long, but without invading the muscle layer or a tumor of any size, invading the muscle layer, but without affecting the serous layer. Stage 2A - no lymph node metastases. Stage 2B - single metastases (no more than 2) to regional lymph nodes.</li> <li>o The third stage is a tumor of any size that invades the entire wall of the stomach or passes into the esophagus or duodenum. Stage 3A - no lymph node metastases. Stage 3B - there are multiple metastases in regional lymph nodes.</li> </ul> </li> </ul>
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	<p>o The fourth stage is a tumor that grows into the surrounding organs and tissues, or a tumor with metastases to distant organs.</p> <ul style="list-style-type: none"> <li>• TNM classification</li> </ul> <p>Stages of gastric cancer are established according to the TNM classification. T (tumor) - tumor (its size), N (nodulus) - nodes (presence of metastases in lymph nodes), M (metastasis) - presence of distant metastases.</p> <ul style="list-style-type: none"> <li>o T1 tumor invades the wall up to the submucosa.</li> <li>o The T2 tumor invades the subserous membrane.</li> <li>o The T3 tumor invades the serous membrane.</li> <li>o T4 tumor has spread to nearby structures.</li> <li>o N0 - no signs of lymph node metastases.</li> <li>o N1 - there are metastases to the perigastric lymph nodes.</li> <li>o N2 - there are metastases to regional lymph nodes.</li> <li>o M0 - no metastases.</li> <li>o M1 - there are distant metastases.</li> <li>o Stage I: T1N0, T1N1, T2N0, all M0.</li> <li>o Stage II: T1N2, T2N1, T3N0, all M0.</li> <li>o Stage III: T2N2, T3N1, T4N0, all M0.</li> <li>o Stage IV: T4N0M0, any options with M1.</li> </ul> <p>Clinic and complications</p> <p>There are no specific symptoms of stomach cancer. Much in the clinical picture depends on the localization of the process and the stage of the disease. The disease is often asymptomatic until later stages. With stomach cancer, the following symptoms may occur:</p> <ul style="list-style-type: none"> <li>• Pain in the epigastrium.</li> <li>• Dyspepsia.</li> <li>• Decreased appetite up to anorexia.</li> <li>• Weight loss.</li> <li>• General weakness.</li> <li>• Dysphagia.</li> <li>• Feeling of heaviness after eating.</li> <li>• Regurgitation (regurgitation) while eating.</li> <li>• Vomiting of food eaten several hours before or the day before.</li> <li>• Bad breath.</li> <li>• Eructations rotten.</li> <li>• In the later stages of the disease, exhaustion and dehydration of patients.</li> </ul> <p>In the presence of several of these symptoms, it is necessary to consult a doctor and conduct diagnostic studies in order to exclude or confirm oncological diagnosis.</p> <p>Diagnosics</p>
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		<p>It is possible to suspect the presence of stomach cancer in the presence of dyspeptic symptoms, a decrease in the patient's body weight and a deterioration in the general condition. At the slightest suspicion of a disease, it is necessary to conduct an EGD with a biopsy.</p> <ul style="list-style-type: none"> <li>• Methods for diagnosing stomach cancer <ul style="list-style-type: none"> <li>o Collection of complaints and anamnesis.</li> <li>o Examination of the patient. Careful palpation of the navel, supraclavicular lymph nodes (more often left nodes are affected - Virchow's metastases).</li> <li>o Esophagogastroduodenoscopy with biopsy. The most important and obligatory examination for suspected stomach cancer.</li> <li>o X-ray examinations of the esophagus and stomach.</li> <li>o Clinical blood test. Characterized by: Anemia, accelerated ESR.</li> <li>o Ultrasound of the abdominal organs. This method helps to exclude the presence of liver metastases.</li> <li>o Radiography of the lungs. This method helps to exclude the presence of lung metastases.</li> <li>o Biochemical blood test. There may be a nonspecific increase in the activity of alkaline phosphatase, AST, ALT.</li> <li>o CT scan of the abdomen.</li> <li>o Diagnostic laparotomy.</li> <li>o Rectal examination in order to exclude metastases of the lymph nodes in the pararectal tissue (Schnitzler metastases).</li> <li>o Vaginal examination and ultrasound of the ovaries. In order to exclude metastatic tumors of Krukenberg.</li> <li>o Determination of tumor markers in the blood. Cancer embryonic antigen (CEA) increases in 45-50% of cases. CA-19-9 increases in 20% of cases.</li> <li>o Histological examination of biopsies of the gastric mucosa.</li> </ul> </li> </ul> <p>In 90-95% of cases of all malignant tumors of the stomach, adenocarcinoma is found. Adenocarcinoma of the stomach is subdivided according to histological criteria into: tubular, papillary, mucinoid, cricoid, and undifferentiated.</p> <p>The second most common neoplasm is lymphoma, with gastrointestinal stromal tumors, usually classified as leiomyomas or leiomyosarcomas, accounting for 2%. In other cases, carcinoid (1%), adenoacanthomas (1%), and squamous cell carcinoma (1%) are diagnosed.</p> <p>Researchers have proposed various ways to classify stomach cancer. According to the system proposed by Lauren, stomach cancer is classified into type I (intestinal) and type II (diffuse). These two types of</p>
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		<p>disease development manifest themselves in very different ways in patients.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Type I intestinal. Expansive, epidemic, intestinal type of stomach cancer. It is characterized by the presence of chronic atrophic gastritis, preserved glandular function, slight invasiveness and clear edges. According to Lauren's classification, it is called epidemic because it usually develops as a result of the action of environmental factors, its prognosis is better, and there is no hereditary predisposition.</li> <li><input type="checkbox"/> Type II diffuse. Diffuse, infiltrative, endemic cancer. Consists of scattered clusters of cells with weak differentiation and indistinct edges. Tumor margins that may have appeared to be clear to the operating surgeon and examining histologist are often retrospectively seeded. Tumors of the endemic type penetrate into the tissues of the stomach over a long distance. This type of tumor is probably not due to environmental or dietary influences, is more common in women, and affects relatively young patients. The relationship with genetic factors (eg E-cadherin), blood groups, and hereditary predisposition has been noted.</li> </ul> <p>Treatment</p> <p>The decision on the method of treatment is made based on the stage of the tumor and the patient's wishes (some patients may prefer more or less radical therapy). Only surgical treatment has a tangible effect on stomach cancer.</p> <p>Adjuvant chemotherapy or combination chemotherapy, as well as radiotherapy, do not have a pronounced effect in the absence of surgical treatment.</p> <ul style="list-style-type: none"> <li>• Treatment methods <ul style="list-style-type: none"> <li>o Non-drug treatment</li> </ul> <p>Stomach cancer patients should adhere to nutritional guidelines. Read more: Nutritional therapy for stomach diseases.</p> <ul style="list-style-type: none"> <li>o Surgical treatment</li> </ul> <p>There are radical and palliative operations for gastric cancer. Two types of operations are considered radical: subtotal gastrectomy and gastrectomy. Most often, total gastrectomy is performed (to healthy tissues), and esophagogastrectomy for tumors of the cardia and the place of transition of the esophagus into the stomach. For tumors of the distal stomach, subtotal gastrectomy is performed.</p> <p>Radical surgery is the removal of most or all of the stomach and adjacent lymph nodes, justified in patients with a pathological process limited to the stomach and regional lymph nodes (less than 50% of patients). It is</p> </li> </ul>
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		<p>recommended to dissect the tissue at a distance of 5 cm proximal and distal to the edge of the tumor, since the network of lymphatic vessels of the stomach is well developed and the tumor is prone to metastasis. Radical treatment is indicated for somatically safe patients under the age of 75 years, in the absence of metastases - about 1/3 of all patients.</p> <p>With resection of a localized pathological formation, a 10-year average survival rate is observed (without resection, 3-4 years). When comparing subtotal and total gastrectomy for distal gastric cancer in wounds There were no significant differences in the propensity to relapse, mortality, and 5-year survival in the pre-trial study.</p> <p>Total gastrectomy. Subtotal gastrectomy.</p>
10.	<p>Normal endoscopic picture of the duodenum. Duodenal burns.</p> <p>Duodenitis. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Stages of the disease.</p> <p>Diverticulitis. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Disease stages, classification.</p>	<p>Classification</p> <p>Duodenitis are divided into several types, which differ in the presence of the pathogen, the course of the disease and the site of localization.</p> <p>By etiology, duodenitis is divided into 2 types:</p> <p>Acute, in which pronounced symptoms of duodenal disease. Symptoms of the disease appear unexpectedly and have a short course.</p> <p>Chronic duodenitis lasts for many years. With this form, the symptoms are mild and appear in most cases due to other pathologies of the digestive system.</p> <p>By location, duodenitis is:</p> <p>Diffuse with multiple inflammatory foci in the duodenum.</p> <p>Local with minor inflammation that resemble the papillae on the walls of the duodenum.</p> <p>By the depth of the lesion:</p> <p>Superficial, in which there is swelling or hyperemia.</p> <p>Interstitial, which affects deep tissue layers.</p> <p>Atrophic, when the mucous membrane is absent or its severe thinning is noticeable.</p> <p>Erosive, which is characterized by wounds and erosion on the walls of the duodenum.</p> <p>Duodenal erosion This is a defect in the inner mucous membrane that does not reach the muscle layer.</p> <p>Erosion differs from ulcers in that it heals without scar formation. The danger of erosion is the possibility of bleeding if a vessel passing into the mucous membrane is affected. The reason may be not only prolonged and deep inflammation, but also active hepatitis or cirrhosis, chronic heart rhythm disturbances, in which all parameters of blood circulation change, as well as kidney diseases that</p>




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		disrupt all types of metabolism. Erosion is a common consequence of stress and uncontrolled intake of non-steroidal anti-inflammatory drugs.
11.	<p>Fibrocolonoscopy technique. Fibrocolonoscopy. Indications and contraindications for fibrocolonoscopy. Preparation for fibrocolonoscopy, methods of pain relief for endoscopic examination. Complications of fibrocolonoscopy. FCC methodology. Normal endoscopic picture of the large intestine.</p>	<ul style="list-style-type: none"> <li>• • Alarming symptoms, such as: bloody or mucous discharge from the rectum, chronic stool disorders, abdominal pain, bloating, etc .;</li> <li>• • obtaining alarming results of clinical tests of blood and feces: an increase in certain tumor markers, an increase in the erythrocyte sedimentation rate, blood in the feces and others;</li> <li>• • finding the patient in a risk group: for example, a routine examination is prescribed for Crohn's disease, ulcerative colitis, "bad" genetics;</li> <li>• • the need to make sure that there is no tumor with polyps, as well as in preparation for some operations on other organs.</li> <li>• Many patients ask the question: why do you need to do a colonoscopy if there are methods for diagnosing bowel diseases that are less uncomfortable for the patient? The fact is that the FCC is characterized by increased information content. The doctor can accurately assess the condition of the mucous membrane from the rectum to the blind, and, if necessary, conduct a biopsy and send the material for histology. In addition to diagnostic purposes, PKU can also pursue therapeutic protein breakdown.</li> <li>• Contraindications for colonoscopy include the following: <ul style="list-style-type: none"> <li>• • respiratory and cardiovascular failure;</li> <li>• • coma;</li> <li>• • hypertension;</li> <li>• • ischemic disease;</li> <li>• • stroke;</li> <li>• • heart attack;</li> <li>• • severe ulcerative colitis.</li> </ul> </li> <li>• Doctor-endoscopist in his work strives for the most accurate description of the level or boundaries of the location in the colon of the zone of pathological changes. The description of the localization of the pathological formation is made using standard anatomical terms (blind, colon, sigmoid colon, etc.).</li> <li>• Rectum <ul style="list-style-type: none"> <li>• The initial border of the rectum is a fold located at a distance of 15-16 cm from the anus, the end part adjoins the anal canal, the length of which is 3-4 cm. In the rectum, the ampulla and the supra-ampullary part are isolated. In turn, the ampulla is subdivided into upper and lower ampullary sections.</li> </ul> </li> <li>• Sigmoid colon</li> </ul>

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	<ul style="list-style-type: none"> <li>• A feature of this section is the transitional type of folds from small to circular. The mucous membrane of the sigmoid colon is always juicy, intensely colored; it is usually pink in color, but there are various shades of red. In most cases, the sigmoid colon contains about 13 haustra, but in some cases, lengthening of the sigmoid colon (usually congenital) is noted when the number of haustra is increased. The concept of dolichosigma is close to lengthening of the intestine, however, this diagnosis should not be made on the basis of only the endoscopic picture of lengthening of the sigmoid colon (which is a variant of the norm), the diagnosis of this condition is made with the obligatory consideration of clinical manifestations, inflammatory changes and disorders of intestinal tone.</li> <li>• Descending gut</li> <li>• The descending colon is usually immediately traced to the splenic flexure. Its folds are well expressed, completely circularly covering the lumen, which looks like a triangle. It contains 6-8 haustrae. The mucous membrane of the descending intestine has a lighter color.</li> <li>• Splenic flexure</li> <li>• A feature of the splenic flexure is folds that run perpendicular to the optical axis of the endoscope. In some cases, a bluish spot can be determined on the intestinal wall, due to the tight fit of the spleen.</li> <li>• Transverse colon</li> <li>• Usually the folds of the transverse colon are high. It contains, as a rule, 22-24 haustrae (in some cases, with congenital lengthening of the transverse colon, the number of haustrae is increased). Its mucous membrane is almost always pearly white.</li> <li>• Hepatic flexure</li> <li>• A bluish dark spot caused by the close adhesion of the liver to the colon serves as a guide.</li> <li>• Ascending gut</li> <li>• Usually short and visible throughout, its lumen also has the shape of a triangle. Contains 8-10 gastr.</li> <li>• The boundary of the ascending section is the Bauginium valve.</li> <li>• Cecum</li> <li>• A distinctive feature of this section of the intestine is the converging tenia, which in 90% of cases forms a triangular platform, in the center of which the opening of the appendix is visible.</li> <li>• Bauginia damper</li> </ul>
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		<ul style="list-style-type: none"> <li>• The forms and variants of the bauhinia shutter are varied. It protrudes into the intestinal lumen by 1.5-2 cm.</li> <li>• Ileum The lumen of the small intestine is rounded, small thin circular folds are visible, when air is introduced, these folds, in contrast to the haustra of the large intestine, are completely smoothed out. On observation, periodic peristaltic contractions are clearly visible. The mucous membrane of the small intestine is fine-grained, yellowish, its surface is dull, dull, the vascular pattern is usually not detected.</li> </ul>
12.	Minimally invasive and less traumatic laparoscopic and thoracoscopic operations	<p>1. Diagnostic fibrogastroduodenoscopy. Biopsy. Execution conditions. Indications and contraindications. Patient preparation.</p> <p>2. Medical endoscopy. The main types of manipulations. Conditions for their application. Efficiency.</p> <p>3. Medical and diagnostic endoscopic manual for CCC. Methodology, instrumentation, indications, contraindications, conditions of implementation, complications and errors.</p> <p>4. Medical and diagnostic endoscopic manual for benign tumors and polyps of the upper gastrointestinal tract. Polypectomy. Methodology instrumentation, indications, contraindications, conditions of implementation. Complications and errors.</p> <p>5. Medical and diagnostic endoscopic manual for strictures and stenoses of the upper gastrointestinal tract. Hardware and instrumentation requirements. Methodology, instrumentation, indications, contraindications, conditions of implementation, complications and errors</p> <p>6. Medical and diagnostic endoscopic manual for HCT foreign bodies. Methodology, instrumentation, indications, contraindications, conditions of implementation, complications and errors</p> <p>7. Medical and diagnostic endoscopic manual for diseases of the operated stomach. Methodology, instrumentation, indications, contraindications, conditions of implementation, complications and errors.</p> <p>8. The concept of endobiliary interventions. Role in the staged treatment of biliary pathology.</p> <p>9. Duodenoscopy, endoscopic interventions on OBD, RPHG. Papillotomy. Methodology, instrumentation, indications, contraindications, conditions of implementation, complications and errors. Equipment, tools. Arsenal of interventions. Further tactics after</p>

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	<p>interventions on BDS.</p> <p>10. Choledochoscopy. Intraoperative interventions and transfistular interventions. Ways to create access to the lumen of the common bile duct. Diagnostic and therapeutic manipulations. Endoscopic tactics for external biliary fistulas. Methodology, instrumentation, indications, contraindications, conditions of implementation.</p> <p>11. Rectoromanoscopy. Basic diagnostic and therapeutic procedures. Biopsy. Methodology, tools, methods of patient preparation. Premedication. Indications, contraindications, conditions of implementation, complications and errors. Typical protocol, description, conclusion. The main types of pathology, their manifestations in RMS.</p> <p>12. Colonoscopy. Basic diagnostic and therapeutic procedures. Biopsy. Methodology, tools, methods of patient preparation. Premedication. Indications, contraindications, conditions of implementation, complications and errors. Typical protocol, description, conclusion. The main types of pathology, their manifestations.</p> <p>13. The problem of benign tumors and polyps of the lower gastrointestinal tract. Endoscopist tactics. Polypectomy. Methodology options. Basic techniques. Methodology, tools, methods of patient preparation. Premedication. Indications, contraindications, conditions of implementation, complications and errors. Tactical options after performing endoscopic interventions.</p> <p>14. Bronchoscopy. Rigid and fiber-optic bronchoscopy. Methodology. Equipment. Tools. Comparative effectiveness. Anesthetic aid for bronchoscopy. Comparative feasibility, main difficulties and limitations; complications and errors.</p> <p>15. Biopsy with FBS and rigid bronchoscopy (types, techniques, instrumentation, complications). Therapeutic manipulations with FBS. Lavage. Sanitation. Tactics for foreign bodies, endosurgical manipulations. Methodology, instrumentation, indications, contraindications, conditions of implementation, complications and errors.</p> <p>16. Laparoscopy. Stages of laparoscopic intervention. Indications and contraindications, main mistakes, dangers, complications. Tactics of an endoscopic surgeon when using laparoscopic interventions, in elective and emergency abdominal surgery. Patient preparation.</p> <p>17. Therapeutic laparoscopy. KSP blockade and cannulation. Drainage of the abdominal cavity.</p>
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	<p>Methodology options and tools.</p> <p>18. Laparoscopic augmented interventions according to I.D. Prudkov. Organostomy. Cholecystostomy. Gastrostomy. Methodology options and tools. Their use in the staged treatment of acute biliary pathology and acute pancreatitis. Options for tactical decisions.</p> <p>19. Operations with laparoscopic support. Appendectomy with laparoscopic support.</p> <p>20. The main types of laparoscopic operations. Laparoscopic cholecystectomy (video demonstration).</p> <p>21. Thoracoscopy. Indications and contraindications, conditions of implementation. Diagnostic and treatment capabilities.</p> <p>22. Operative thoracoscopy. Arsenal of methods. Intervention options. Hardware, complications and errors.</p>
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## 6. TOPICS OF PRACTICAL AND SEMINARS

1. Organizational basis of endoscopy. Normative documents on the organization of the endoscopic service in Russia. Questions of medical ethics and deontology.
2. Indications and contraindications for EGD. Preparation for EGD, methods of pain relief for endoscopic examination. Complications of FGDS.
Complications of FGDS and ERPHG.
FGDS technique. ERPHG technique.
3. Normal endoscopic picture of the esophagus. Inflammatory diseases. Burns of the esophagus. Post-burn narrowing. Phlebeurysm. Tumors of the esophagus. Foreign body Gastroesophageal reflux disease. Etiopathogenesis, clinical picture and endoscopic picture. EGD technique for diseases of the esophagus.
4. Peptic ulcer of the stomach and duodenum.
7. Mallory-Weiss syndrome. The reasons for the development of the disease, clinical picture and diagnosis, differential diagnosis. Conservative and surgical treatment.
8. Complications of diseases of the colon
9 stomach cancer Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Stages of the disease. Small signs of cancer. The main ways of metastasis of gastric cancer. Classification. Clinic, diagnostics, palliative and surgical treatment.
10. Normal endoscopic picture of the duodenum. Burns of the duodenum. Duodenitis. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Stages of the disease.
Diverticulitis. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Disease stages, classification.
11. Technique of fibrocolonoscopy. Fibrocolonoscopy. Indications and contraindications for fibrocolonoscopy. Preparation for fibrocolonoscopy, methods of pain relief for endoscopic examination. Complications of fibrocolonoscopy.

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**Topic 1.** Organizational foundations of endoscopy. Normative documents on the organization of the endoscopic service in Russia. Questions of medical ethics and deontology. Modern trends in the development of endoscopy.

Contents of the topic: 1. History of the development of endoscopy.

2. Organization of the endoscopic service.

Possibilities of endoscopic methods. Standard terminology in endoscopy.

Questions to the topic:

- Modern requirements for the processing of endoscopic equipment.

- Endoscopic equipment.

- Device and principles of operation. Rules for the storage and operation of endoscopes.

Registration of endoscopic examination protocols.

- The minimum standard terminology in the practice of an endoscopist.

- Organizational basis of endoscopy.

- Regulatory documents on the organization of the endoscopic service in Russia. Questions of medical ethics and deontology.

**Topic 2.** Indications and contraindications for FGDS. Preparation for EGD, methods of pain relief for endoscopic examination. Complications of FGDS.

Complications of FGDS and ERPHG.

FGDS technique. ERPHG technique.

Questions to the topic:

Indications for planned FGDS

Indications for emergency FGDS

Contraindications to FGDS

**Topic 3.** Normal endoscopic picture of the esophagus. Inflammatory diseases. Burns of the esophagus. Post-burn narrowing. Phlebeurysm. Tumors of the esophagus. Foreign body Gastroesophageal reflux disease. Etiopathogenesis, clinical picture and endoscopic picture. EGD technique for diseases of the esophagus.

Questions to the topic: Classification of diseases of the esophagus

1. Malformations. These include atresia, congenital narrowing, congenital idiopathic dilatation, cardiac insufficiency (or achalasia), doubling of the esophagus, gastric undescendedness.

2. Foreign bodies of the esophagus.

3. Functional diseases of the esophagus (achalasia of the esophagus, cardiospasm, dyskinesia of the esophagus - esophagospasm).

4. Diverticula of the esophagus.

5. Burns of the esophagus.

6. Benign tumors and cysts of the esophagus.

7. Cancer of the esophagus.

Clinic, diagnostics, treatment.

**Topic 4.** Peptic ulcer of the stomach and duodenum.

Questions to the topic:

Etiology and pathogenesis.

Classification. Symptoms. Complications


Diagnostics.

Treatment.

**Topic 5.** Modern methods of treatment of gastroduodenal bleeding

Questions to the topic:



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1. Peptic ulcer and duodenal ulcer, complicated by bleeding. Modern endoscopic methods for the treatment of gastroduodenal bleeding
2. Portal hypertension, varicose veins of the esophagus. Modern methods of treatment of bleeding from varicose veins of the esophagus
3. Erosive gastritis.

**Topic 6** Study of the stomach. Normal endoscopic picture. Burns of the stomach. Gastritis. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Erosive lesions. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Acute stomach ulcers. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Stages of the disease.

Questions to the topic:

Three clinical stages are classified:

- acute - necrosis of the affected tissues of the stomach wall;
- rejection of necrotic areas;
- scarring of the surface of the inner wall of the stomach, stenosis of the pyloric region (more often) or of the entire stomach.

The degrees of severity are considered in connection with the damage caused to the tissues of the stomach:


- first degree burn (catarrhal) - only the surface of the mucous membrane is affected, it is edematous and hypersensitive;
- second degree burn (erosive) - the gastric mucosa is completely damaged, it necrotizes and is rejected;
- third degree burn (ulcerative) - not only mucosal tissue is damaged, but also deeper layers of the stomach wall, there is a high probability of its perforation and further inflammation of the abdominal cavity;
- fourth degree burn (necrotic) - the integrity of the stomach is broken and nearby tissues and organs are damaged.

**Topic 7.** Mallory-Weiss syndrome. The reasons for the development of the disease, clinical picture and diagnosis, differential diagnosis. Conservative and surgical treatment.

Questions to the topic:

endoscopic methods of treating the disease:

- The site of bleeding is injected with adrenaline or norepinephrine. Due to a sharp spasm of blood vessels, a hemostatic effect occurs.
- Argon plasma coagulation - cauterization of a bleeding vessel with argon. This is a technically complex, modern and highly effective method of treatment that allows you to achieve stable hemostasis. It is used for ongoing bleeding of moderate to low intensity. With intense bleeding, argon plasma coagulation is the final stage of endoscopic treatment, which is preceded by injection techniques.
- Electrocoagulation is no less effective method, especially in combination with the introduction of adrenaline. The temperature effect on the bleeding vessel is carried out using alternating or direct high-frequency electric current.
- Cryotherapy on the source of bleeding, the use of laser irradiation.
- Introduction of sclerosing substances into the lesion site allows to stop bleeding I. "Ethoxysclerol" is a new and very effective drug that is used for the procedure of hardening of bleeding vessels. The action of sclerosants is based on the formation of an intravascular thrombus, thickening of the intima and the appearance of fibrous tissue.
- Ligation and clipping of vessels - the imposition of a ligature or metal clip on a bleeding vessel.

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### **Topic 8 Complications of diseases of the colon**

Questions to the topic: The main clinical manifestations of diseases of the colon.

Modern laparoscopic methods of treatment of diseases of the colon.

Topic 9 Stomach cancer. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Stages of the disease. Small signs of cancer. The main ways of metastasis of gastric cancer. Classification. Clinic, diagnostics, palliative and surgical treatment.

Questions to the topic:

- TNM classification

Stages of gastric cancer are established according to the TNM classification. T (tumor) - tumor (its size), N (nodulus) - nodes (presence of metastases in lymph nodes), M (metastasis) - presence of distant metastases.

- o T1 tumor invades the wall up to the submucosa.
- o The T2 tumor invades the subserous membrane.
- o The T3 tumor invades the serous membrane.
- o T4 tumor has spread to nearby structures.
- o N0 - no signs of lymph node metastases.
- o N1 - there are metastases to the perigastric lymph nodes.
- o N2 - there are metastases to regional lymph nodes.
- o M0 - no metastases.
- o M1 - there are distant metastases.
- o Stage I: T1N0, T1N1, T2N0, all M0.
- o Stage II: T1N2, T2N1, T3N0, all M0.
- o Stage III: T2N2, T3N1, T4N0, all M0.
- o Stage IV: T4N0M0, any options with M1.

**Topic 10.** Normal endoscopic picture of the duodenum. Burns of the duodenum. Duodenitis. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Stages of the disease.

Diverticulitis. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Disease stages, classification.

Questions to the topic Classification:

Duodenitis are divided into several types, which differ in the presence of the pathogen, the course of the disease and the site of localization.

By etiology, duodenitis is divided into 2 types:

- Acute, in which pronounced symptoms of duodenal disease. Symptoms of the disease appear unexpectedly and have a short course.
- Chronic duodenitis lasts for many years. With this form, the symptoms are mild and appear in most cases due to other pathologies of the digestive system.


**Topic 11** Technique of fibrocolonoscopy. Fibrocolonoscopy. Indications and contraindications for fibrocolonoscopy. Preparation for fibrocolonoscopy, methods of pain relief for endoscopic examination. Complications of fibrocolonoscopy.

FCC methodology. Normal endoscopic picture of the large intestine.

Questions to the topic:

Among the contraindications for colonoscopy, it is worth highlighting the following:

- respiratory and cardiovascular failure;
- coma;
- hypertension;
- ischemic disease;

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- stroke;
- heart attack;
- severe ulcerative colitis.

**Topic 12.** Minimally invasive and minimally traumatic laparoscopic and thoracoscopic operations.

Questions to the topic:

1. Medical endoscopy. The main types of manipulations. Conditions for their application. Efficiency.

2. Duodenoscopy, endoscopic interventions on OBD, RPHG. Papillotomy. Methodology, instrumentation, indications, contraindications, conditions of implementation, complications and errors. Equipment, tools. Arsenal of interventions. Further tactics after interventions on BDS.

3. Choledochoscopy. Intraoperative interventions and transfistular interventions. Ways to create access to the lumen of the common bile duct. Diagnostic and therapeutic manipulations. Endoscopic tactics for external biliary fistulas. Methodology, instrumentation, indications, contraindications, conditions of implementation.

4. Thoracoscopy. Indications and contraindications, conditions of implementation. Diagnostic and treatment capabilities.

5. Operative thoracoscopy. Arsenal of methods. Intervention options. Hardware, complications and errors.

## 7. LABORATORY CLASSES

**Not provided.**

## 8. SUBJECTS OF COURSE PAPERS, TESTS, ESSAYS

Abstracts are written on the main topics of practical lessons for missed lessons and topics of independent work.

The purpose and main tasks of writing essays are aimed at achieving the most complete development of the program material in the discipline under study.

Requirements for abstract design

The structure is the same plan that it is desirable to adhere to in order to get a good and understandable scientific work. Without fail, the abstract must include


- title page;
- content;
- introduction;
- the main part;
- conclusion;
- list of references.

The following elements can also be included in the structure of the abstract:

- purpose of the work;
- methodology of work;
- results of work;
- applications (if any).

### Essay topics


- Bronchoscopy in the diagnosis of diseases of the trachea and bronchi.
- Gastroscopy in the diagnosis of diseases of the esophagus.
- Duodenoscopy in the diagnosis of diseases of the duodenum.
- Removal of foreign bodies from the gastrointestinal tract.

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- Laparoscopy in the diagnosis of diseases of the abdominal organs.
- Local hemostasis in gastrointestinal bleeding.
- Rectoscopy and colonoscopy in the diagnosis of diseases of the rectum and colon.

## **9. QUESTIONS FOR EXAM ON DISCIPLINE “PROPEDEUTICS OF INTERNAL DISEASES”**

1. Etiology and pathogenesis of gastric ulcer and intestinal ulcer. Pathological changes. Stage of development of peptic ulcer disease. Clinic and diagnostics. Features of the clinical course depending on the localization of the ulcer, indications for surgical treatment of gastric ulcer and duodenal ulcer, complications of peptic ulcer disease, methods of gastric resection, their modifications, advantages, disadvantages.
2. Peptic ulcer of the stomach and duodenum, complicated by bleeding. Forrest classification. Clinic, diagnostics. Symptoms Modern methods of endoscopic hemostasis. Surgical treatment methods.
3. Peptic ulcer of the stomach and duodenum, complicated by perforation. Classification, clinic, diagnostics. Symptoms Surgical treatment methods. Taylor treatment.
4. Mallory-Weiss syndrome. The reasons for the development of the disease, clinical picture, diagnosis, differential diagnosis. Conservative and surgical treatment.
5. Malignant ulcer. The frequency of malignancy. Clinic, diagnostics. Mass screening methods. The role of gastroscopy in diagnosis. Stomach cancer. Clinic, small signs according to Savitsky. Treatment.
6. Pyloroduodenal stenosis, classification. Clinic, complications, treatment.
7. Anatomy of the gallbladder and extrahepatic biliary tract. Examination techniques for pathology of the gallbladder and extrahepatic biliary tract. Acute cholecystitis.
8. Clinic, diagnostics, treatment.
9. Gallstone disease. Epidemiology, frequency. Etiology, pathogenesis, Classification, clinic, diagnostics, differential diagnostics. Treatment: indication for surgery. Modern minimally invasive methods of surgical treatment.
10. Acute cholecystitis, differential diagnosis of various types of jaundice. Clinic, diagnostics, surgeon tactics. Complications of acute cholecystitis. Features of the surgeon's tactics in elderly patients with destructive cholecystitis. Modern methods of treating obstructive jaundice.
11. Features of postoperative management in various situations.
12. Anatomical and physiological information about the pancreas. Topical issues of acute pancreatitis. Etiology, pathogenesis, clinic. Differential diagnostics. Conservative treatment depending on the stage of the disease. Outcomes of diseases. Diagnostics of the destructive forms of pancreatitis. Indications for surgical treatment and types of operations.
13. Complications of acute pancreatitis, diagnosis, treatment. Operational accesses. Drainage methods for destruction of the pancreas.
14. Adhesive disease, clinical forms. Diagnosis and differential diagnosis of adhesive obstruction. Surgical tactics. Diagnostic and tactical errors in the treatment of adhesive intestinal obstruction.
15. Postoperative hernia. Clinic, diagnostics, treatment.

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16. Hernia of the white line. Clinic, diagnostics, treatment.

17. Definition of the concept of peritonitis. Anatomical and physiological information about the peritoneum. Classification of peritonitis (by clinical course, localization, the nature of the effusion, by the nature of the pathogen, by the stage)

18. Tactics of the surgeon and methods of early diagnosis of peritonitis. Features of the course of postoperative peritonitis. Tertiary peritonitis. Preparing patients for surgery. The principles of surgical treatment of various peritonitis.

19. Injuries to the chest: classification, complications. Pneumothorax and hydrothorax. Clinic and diagnostics. Treatment methods. Classification of polytrauma. Combined chest and abdominal injuries: classification, complications. Clinic and diagnostics. Treatment methods. Thoracoscopy. Laparoscopy. Bronchoscopy.

20. Abdominal injuries: classification, complications. Clinic and diagnostics. Treatment methods.


21. Classification of polytrauma. Combined chest and abdominal injuries: classification, complications. Clinic and diagnostics. Treatment methods.

22. Ischemic disease of the digestive system. Violation of mesenteric circulation. Mesenteric ischemia. Clinic and diagnostics. Treatment methods.

23. Diseases of the colon. Clinic and diagnostics. Treatment methods. Colonoscopy.


#### 10. INDEPENDENT WORK OF STUDENTS

№	Topic of section	Independent work type	Volume in hours	form of control
1	Organizational foundations of endoscopy. Normative documents on the organization of the endoscopic service in Russia. Questions of medical ethics and deontology.	Creation of multimedia presentations, viewing educational videos on the topics of classes, followed by discussion and answers to questions, solving situational problems,	2	Abstracts and their report. Interview.
2	Indications and contraindications for EGD. Preparation for EGD, methods of pain relief for endoscopic examination. Complications of FGDS. Complications of FGDS and ERPHG.		2	Demonstration of presentations, answers and analysis of situational tasks


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	FGDS technique. ERPHG technique.			
3	Normal endoscopic picture of the esophagus. Inflammatory diseases. Burns of the esophagus. Post-burn narrowing. Phlebeurysm. Tumors of the esophagus. Foreign body Gastroesophageal reflux disease. Etiopathogenesis, clinical picture and endoscopic picture. EGD technique for diseases of the esophagus.		2	Abstracts and their report. Interview.
4	Peptic ulcer of the stomach and duodenum. Complications		2	Demonstration of presentations, answers and analysis of situational tasks
5	Modern methods of treating gastroduodenal bleeding		2	Abstracts and their report. Interview.
6	Examination of the stomach. Normal endoscopic picture. Burns of the stomach. Gastritis. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Erosive lesions. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Acute stomach ulcers. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Stages of the disease.		2	Demonstration of presentations, answers and analysis of situational tasks
7	Mallory-Weiss syndrome. The reasons for the development of the disease, clinical picture and diagnosis, differential diagnosis. Conservative and surgical treatment.		2	Abstracts and their report. Interview.
8	Complications of diseases of the colon)		2	Demonstration of presentations, answers and analysis of situational tasks
9	Stomach cancer. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Stages of the disease.		2	Abstracts and their report. Interview.



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	Small signs of cancer. The main ways of metastasis of gastric cancer. Classification. Clinic, diagnostics, palliative and surgical treatment.			
10	Normal endoscopic picture of the duodenum. Burns of the duodenum. Duodenitis. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Stages of the disease.		2	Demonstration of presentations, answers and analysis of situational tasks
11	Diverticulitis. Etiopathogenesis, clinical picture and endoscopic picture. Endoscopic conservative treatment. Disease stages, classification.		2	Abstracts and their report. Interview.
12	Minimally invasive and less traumatic laparoscopic and thoracoscopic operations.		2	Demonstration of presentations, answers and analysis of situational tasks
	<b>Total</b>			<b>24</b>

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## 10. EDUCATIONAL AND METHODOLOGICAL AND INFORMATION SUPPORT OF DISCIPLINE

### List of recommended literature:

#### Main literature:

1 Merzlikin, N. V. Surgical diseases : in 2 vol. Vol. 1. : textbook / N. V. Merzlikin, N. A. Brazhnikova, B. I. Alperovich, V. F. Tskhai. - Москва : ГЭОТАР-Медиа, 2021. - 360 с. - ISBN 978-5-9704-5852-5. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970458525.html>

2 Kruchkova, A. V. Care for Surgical Patients / A. V. Kruchkova, Yu. V. Kondusova, I. A. Poletayeva and others; edited by A. V. Kruchkova. - Москва : ГЭОТАР-Медиа, 2020. - 144 с. - ISBN 978-5-9704-5664-4. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970456644.html>

#### Additional literature:

1 Косцова, Н. Г. Основы ухода за пациентом в хирургической клинике = Basics of Nursing Care in Surgery : учебное пособие на русском и английском языках / Косцова Н. Г. , Бадретдинова А. И. , Тигай Ж. Г. [и др. ] - Москва : ГЭОТАР-Медиа, 2020. - 312 с. - ISBN 978-5-9704-5383-4. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970453834.html>

2 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/>

3 Dudykin, S. S. Topographic Anatomy and Operative Surgery. Workbook. In 2 parts. Part II / Edited by S. S. Dudykin. - Москва : ГЭОТАР-Медиа, 2022. - 120 с. - ISBN 978-5-9704-6452-6. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970464526.html>

#### Educational- methodical:

Belonogov N. I.  
Guidelines for independent study discipline "Hospital surgery, pediatric surgery" in the specialties 05.31.01 - General Medicine / N. I. Belonogov. - Ulyanovsk : Ulsu, 2019. - 12 p. - Неопубликованный ресурс. - URL: <http://lib.ulsu.ru/MegaPro/Download/MObject/10929>. - Режим доступа: ЭБС УЛГУ. - Текст : электронный.

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*Специальная библиотека Старолипово Стел 18.05.2023*

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*Профессиональные базы данных, информационно-справочные системы*

**1. Электронно-библиотечные системы:**

1.1. Цифровой образовательный ресурс IPRsmart : электронно-библиотечная система : сайт / ООО Компания «Ай Пи Ар Медиа». - Саратов, [2023]. – URL: <http://www.iprbookshop.ru>. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.2. Образовательная платформа ЮРАЙТ : образовательный ресурс, электронная библиотека : сайт / ООО Электронное издательство «ЮРАЙТ». – Москва, [2023]. - URL: <https://urait.ru>. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.3. База данных «Электронная библиотека технического ВУЗа (ЭБС «Консультант студента») : электронно-библиотечная система : сайт / ООО «Политехресурс». – Москва, [2023]. – URL: <https://www.studentlibrary.ru/cgi-bin/mb4x>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.4. Консультант врача. Электронная медицинская библиотека : база данных : сайт / ООО «Высшая школа организации и управления здравоохранением-Комплексный медицинский консалтинг». – Москва, [2023]. – URL: <https://www.rosmedlib.ru>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.5. Большая медицинская библиотека : электронно-библиотечная система : сайт / ООО «Букап». – Томск, [2023]. – URL: <https://www.books-up.ru/ru/library/>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.6. ЭБС Лань : электронно-библиотечная система : сайт / ООО ЭБС «Лань». – Санкт-Петербург, [2023]. – URL: <https://e.lanbook.com>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.7. ЭБС Znanium.com : электронно-библиотечная система : сайт / ООО «Знаниум». - Москва, [2023]. - URL: <http://znanium.com> . – Режим доступа : для зарегистрир. пользователей. - Текст : электронный.

**2. КонсультантПлюс** [Электронный ресурс]: справочная правовая система. / ООО «Консультант Плюс» - Электрон. дан. - Москва : КонсультантПлюс, [2023].

**3. Базы данных периодических изданий:**

3.1. eLIBRARY.RU: научная электронная библиотека : сайт / ООО «Научная Электронная Библиотека». – Москва, [2023]. – URL: <http://elibrary.ru>. – Режим доступа : для авториз. пользователей. – Текст : электронный

3.2. Электронная библиотека «Издательского дома «Гребенников» (Grebinnikon) : электронная библиотека / ООО ИД «Гребенников». – Москва, [2023]. – URL: <https://id2.action-media.ru/Personal/Products>. – Режим доступа : для авториз. пользователей. – Текст : электронный.


**4. Федеральная государственная информационная система «Национальная электронная библиотека»** : электронная библиотека : сайт / ФГБУ РГБ. – Москва, [2023]. – URL: <https://нэб.рф>. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

**5. Российское образование** : федеральный портал / учредитель ФГАУ «ФИЦТО». – URL: <http://www.edu.ru>. – Текст : электронный.

**6. Электронная библиотечная система УлГУ** : модуль «Электронная библиотека» АБИС Мега-ПРО / ООО «Дата Экспресс». – URL: <http://lib.ulsu.ru/MegaPro/Web>. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

Согласовано:

*ведущий инженер / Шуренко ЮВ / М.С. / 18.04.2023г*  
 Должность сотрудника УИТиТ      ФИО      Подпись      Дата

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## 11. MATERIAL AND TECHNICAL SUPPORT OF DISCIPLINE:

### Inventory sheet

- Educational and methodological materials (methodological developments for students, methodological developments for teachers, teaching aids for students, methodological developments for independent work of students) for each lesson - are available at the department.
- Regulatory documents (work program and educational state standard) - are available at the department.
- Computer training programs, presentations for each lesson - are available at the department.
- Internet access - available at the department.


The clinical base (State Health Institution "Ulyanovsk Regional Clinical Center for Specialized Types of Medical Care") is equipped with the necessary instruments and equipment for outpatient, skilled and specialized surgical care, including ultrasound, endoscopic equipment, equipment for computed and magnetic resonance imaging, x-ray surgical equipment, equipment for minimally invasive interventions. Separate viewing rooms equipped to receive and show patients.

## 12. SPECIAL CONDITIONS FOR STUDENTS WITH DISABILITIES



If necessary, students from among persons with disabilities (at the request of the student) can be offered one of the following options for the perception of information, taking into account their individual psychophysical characteristics:

- for persons with visual impairments: in printed form in an enlarged font; in the form of an electronic document; in the form of an audio file (translation of educational materials into  audio format); in printed form in Braille; individual consultations with the involvement of a tiflosurd interpreter; individual assignments and consultations;
- for persons with hearing impairments: in printed form; in the form of an electronic document; videos with subtitles; individual consultations with the involvement of a sign language interpreter; individual assignments and consultations;
- for persons with disabilities of the musculoskeletal system: in printed form; in the form of an electronic document; in the form of an audio file; individual assignments and consultations.


Developer  associate professor Marakaev D.Kh.

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**LIST OF CHANGES of**  
**Educational plan of discipline “Surgery for General Practitioners”**  
**Speciality 31.05.01. «General medicine»**

<b>№</b>	<b>Content of the change or a link to the attached text of the</b>	<b>Full name of the head of the Department developing the discipline</b>	<b>Signature</b>	<b>Date</b>
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 1	Midlenko V.I.		30.08.24
2	Introduction of changes to item A) Recommended Literature item 11 "Educational, methodological and information support of the discipline" with the design of Appendix 2	Midlenko V.I.		30.08.24



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### Main literature:

1. Merzlikin, N. V. Surgical diseases : in 2 vol. Vol. 1. : textbook / N. V. Merzlikin, N. A. Brazhnikova, B. I. Alperovich, V. F. Tskhai. - Москва : ГЭОТАР-Медиа, 2021. - 360 с. - ISBN 978-5-9704-5852-5. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970458525.html>
2. Kruchkova, A. V. Care for Surgical Patients / A. V. Kruchkova, Yu. V. Kondusova, I. A. Poletayeva and others; edited by A. V. Kruchkova. - Москва : ГЭОТАР-Медиа, 2020. - 144 с. - ISBN 978-5-9704-5664-4. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970456644.html>


### Additional literature:


- 1 Косцова, Н. Г. Основы ухода за пациентом в хирургической клинике = Basics of Nursing Care in Surgery : учебное пособие на русском и английском языках / Косцова Н. Г. , Бадретдинова А. И. , Тигай Ж. Г. [и др. ] - Москва : ГЭОТАР-Медиа, 2020. - 312 с. - ISBN 978-5-9704-5383-4. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970453834.html>
2. Dudykin, S. S. Topographic Anatomy and Operative Surgery. Workbook. In 2 parts. Part II / Edited by S. S. Dudykin. - Москва : ГЭОТАР-Медиа, 2022. - 120 с. - ISBN 978-5-9704-6452-6. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970464526.html>
3. Gostishchev, V. K. General surgery. The manual : tutorial / V. K. Gostishchev. - Moscow : GEOTAR-Media, 2020. - 220 с. - ISBN 978-5-9704-5439-8. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970454398.html>
- 4 . Merzlikin, N. V. The Medical History of a Surgical Patient / Merzlikin N. V. - Москва : ГЭОТАР-Медиа, 2018. - 120 с. - ISBN 978-5-9704-4465-8. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970444658.html>

### Educational - methodical:

Belonogov N. I.  
Guidelines for independent study discipline "Hospital surgery, pediatric surgery" in the specialties 05.31.01 - General Medicine / N. I. Belonogov. - Ulyanovsk : UISU, 2019. - 12 p. - Неопубликованный ресурс. - URL: <http://lib.ulsu.ru/MegaPro/Download/MObject/10929>. - Режим доступа: ЭБС УлГУ. - Текст : электронный.

### AGREED:

Leading specialist Стадольникова/  / 2024  
The position of the worker scientific library Full name signature date

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## 1. Электронно-библиотечные системы:

1.1. Цифровой образовательный ресурс IPRsmart : электронно-библиотечная система : сайт / ООО Компания «Ай Пи Ар Медиа». - Саратов, [2024]. – URL: <http://www.iprbookshop.ru>. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.2. Образовательная платформа ЮРАЙТ : образовательный ресурс, электронная библиотека : сайт / ООО Электронное издательство «ЮРАЙТ». – Москва, [2024]. - URL: <https://urait.ru> . – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.3. База данных «Электронная библиотека технического ВУЗа (ЭБС «Консультант студента») : электронно-библиотечная система : сайт / ООО «Политехресурс». – Москва, [2024]. – URL: <https://www.studentlibrary.ru/cgi-bin/mb4x>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.4. Консультант врача. Электронная медицинская библиотека : база данных : сайт / ООО «Высшая школа организации и управления здравоохранением-Комплексный медицинский консалтинг». – Москва, [2024]. – URL: <https://www.rosmedlib.ru>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.5. Большая медицинская библиотека : электронно-библиотечная система : сайт / ООО «Букап». – Томск, [2024]. – URL: <https://www.books-up.ru/ru/library/> . – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.6. ЭБС Лань : электронно-библиотечная система : сайт / ООО ЭБС «Лань». – Санкт-Петербург, [2024]. – URL: <https://e.lanbook.com>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.7. ЭБС Znanium.com : электронно-библиотечная система : сайт / ООО «Знаниум». - Москва, [2024]. - URL: <http://znanium.com> . – Режим доступа : для зарегистрир. пользователей. - Текст : электронный.

**2. КонсультантПлюс** [Электронный ресурс]: справочная правовая система. / ООО «Консультант Плюс» - Электрон. дан. - Москва : КонсультантПлюс, [2024].

**3. eLIBRARY.RU**: научная электронная библиотека : сайт / ООО «Научная Электронная Библиотека». – Москва, [2024]. – URL: <http://elibrary.ru>. – Режим доступа : для авториз. пользователей. – Текст : электронный

**4. Федеральная государственная информационная система «Национальная электронная библиотека»** : электронная библиотека : сайт / ФГБУ РГБ. – Москва, [2024]. – URL: <https://нэб.рф>. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

**5. Российское образование** : федеральный портал / учредитель ФГАУ «ФИЦТО». – URL: <http://www.edu.ru>. – Текст : электронный.

**6. Электронная библиотечная система УлГУ** : модуль «Электронная библиотека» АБИС Мега-ПРО / ООО «Дата Экспресс». – URL: <http://lib.ulsu.ru/MegaPro/Web>. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

Инженер ведущий



Щуренко Ю.В.

16/04/2024