

**PRIVATE HIGHER EDUCATIONAL INSTITUTION
"INTERNATIONAL ACADEMY OF ECOLOGY AND MEDICINE"
Department of Surgery**

WORKING PROGRAM OF EDUCATIONAL DISCIPLINE

"SURGERY"

LEVEL OF HIGHER EDUCATION Second (master's) level

DEGREE OF HIGHER EDUCATION Master's degree

BRANCH OF KNOWLEDGE 22 Healthcare

SPECIALTY 222 Medicine

Reviewed and approved
at the meeting of the department of surgery
Protocol No. 1, dated August 31 , 2019

Kyiv 2019

Description educational disciplines

| Name of indicators | Field of knowledge, direction of training, educational and qualification level | Characteristics of the academic discipline | |
|--|--|--|-------|
| Credits – 14,0 | Branch of knowledge: 22 "Health care" | Full course | |
| Sections - 4 | Specialty 222 "Medicine" | A year of training | |
| | | V , VI | |
| The total number of hours is 420 hours | Level of higher education: master's degree | Semesters | |
| | | IX, X, XI, XII | |
| | Form of education : daytime | Lectures | 20 h |
| | | Practical | 257 h |
| | | S.S | 143 h |
| | Type of discipline: mandatory | Type of control: | |
| | | Exam | |
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Introduction

Study program of the academic discipline " Surgery"

The program of study of the discipline "General Surgery" is compiled in accordance with the Standard for the preparation of applicants for the second (master's) level of the field of knowledge 22 "Health care" specialty 222 "Medicine".

Description of the academic discipline.

"Surgery" is a branch of science that studies the etiology and pathogenesis of surgical diseases, develops and improves methods of early diagnosis, treatment and prevention of diseases, improves methods of correction of surgical diseases; develops measures aimed at shortening the periods of temporary incapacity for work and reducing disability:

- the program the discipline " Surgery " is divided into sections, which, in turn, are divided into subsections.
- On the fourth courses for students of the medical faculty, it is planned to study the section of surgery - "Abdominal surgery".

Units:

1. Urgent abdominal surgery.
2. Surgical gastroenterology, proctology and transplantology.

- In the fifth year, it is planned to study the section of surgery - "Thoracic, cardiovascular, endocrine surgery".

Units:

- 1 . Thoracic, cardiac, endocrine surgery.
2. Vascular surgery.

- In the sixth year, it is planned to study the chapter - " Symptomitis syndromes in surgery ". »

The subject of study of the educational discipline is the main manifestations of surgical diseases, diagnosis, differential diagnosis and the basic principles of treatment of patients with surgical pathology.

Interdisciplinary connections : human anatomy, topographical anatomy, operative surgery, general surgery, pathanatomy, physiology, pathophysiology, biochemistry , pharmacology, anesthesiology and resuscitation.

1. The purpose and tasks of the educational discipline

1.1. The purpose of teaching the educational discipline " surgery " is to acquire theoretical and practical knowledge of etiology, pathogenesis, typical and atypical clinical manifestations, methods of diagnosis, conservative and operative treatment, and rehabilitation of surgical pathology.

1.2. The main tasks of studying the discipline "surgery" are mastering knowledge, abilities and skills to ensure adaptation of students to patients of a surgical profile; the ability to make a diagnosis, to choose appropriate medical and diagnostic manipulations, to provide assistance to patients with surgical pathology.

1.3 Competencies and results training , the formation of which is facilitated by the discipline. According to the requirements of the OPP, the discipline ensures that students acquire **Competencies and program learning outcomes**:

| General competences (CG) | |
|-------------------------------|---|
| ZK-1 | Ability to abstract thinking, analysis and synthesis. |
| ZK-2 | Ability to learn and master modern knowledge. |
| ZK-3 | Ability to apply knowledge in practical situations. |
| ZK-4 | Knowledge and understanding of the subject area and understanding of professional activity. |
| ZK-5 | Ability to adapt and act in a new situation. |
| ZK-6 | Ability to make informed decisions. |
| ZK-7 | Ability to work in a team. |
| ZK-8 | Ability to interpersonal interaction. |
| ZK-10 | Ability to use information and communication technologies. |
| ZK-11 | Ability to search, process and analyze information from various sources. |
| ZK-12 | Determination and persistence in relation to assigned tasks and assumed responsibilities. |
| Professional competences (FC) | |
| FC-1 | Ability to collect medical information about the patient and analyze clinical data. |
| FC-2 | Ability to determine the necessary list of laboratory and instrumental studies and evaluate their results. |
| FC-3 | Ability to establish a preliminary and clinical diagnosis of the disease. |
| FK-4 | The ability to determine the necessary regime of work and rest in the treatment and prevention of diseases. |
| FC-5 | The ability to determine the nature of nutrition in the treatment and prevention of diseases. |
| FC-6 | Ability to determine the principles and nature of treatment and prevention of diseases. |
| FC-7 | Ability to diagnose emergency conditions. |
| FC-8 | Ability to determine tactics and provide emergency medical care. |
| FC-10 | Ability to perform medical manipulations. |
| FC-11 | Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility. |
| FC-16 | Ability to maintain medical documentation, including electronic forms. |
| FC-21 | It is clear and unambiguous to convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to people who are studying. |

| | |
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| FC-24 | Adherence to ethical principles when working with patients and laboratory animals. |
| FC-25 | Adherence to professional and academic integrity, to be responsible for the reliability of the obtained scientific results. |
| Program Learning Outcomes (PLP) | |
| PRN-1 | Have thorough knowledge of the structure of professional activity. To be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, the ability for further professional training with a high level of autonomy. |
| PRN-3 | Specialized conceptual knowledge, which includes scientific achievements in the field of health care and is the basis for conducting research, critical understanding of problems in the field of medicine and related interdisciplinary problems. |
| PRN-4 | Identify and identify leading clinical symptoms and syndromes (according to list 1); according to standard methods, using preliminary data of the patient's history, data of the patient's examination, knowledge about the person, his organs and systems, establish a preliminary clinical diagnosis of the disease (according to list 2). |
| PRN-5 | Collect complaints, history of life and diseases, evaluate psychomotor and physical development of the patient, state of organs and systems of the body, based on the results of laboratory and instrumental studies, evaluate information regarding the diagnosis (according to list 4), taking into account the age of the patient. |
| PRN-6 | To establish the final clinical diagnosis by making a reasoned decision and analyzing the received subjective and objective data of clinical, additional examination, carrying out differential diagnosis, observing the relevant ethical and legal norms, under the control of a doctor as a manager in the conditions of a health care institution (according to the list 2). |
| PRN-7 | Assign and analyze additional (mandatory and optional) examination methods (laboratory, functional and/or instrumental) (according to list 4) of patients with diseases of organs and body systems for differential diagnosis of diseases (according to list 2). |
| PRN-8 | Determine the main clinical syndrome or what causes the severity of the condition of the victim/injured (according to list 3) by making a reasoned decision and assessing the person's condition under any circumstances (in the conditions of a health care institution, outside its borders) , including in conditions of emergency and hostilities, in field conditions, in conditions of lack of information and limited time. |
| PRN-9 | Determine the nature and principles of treatment (conservative, operative) of patients with diseases (according to list 2), taking into account the patient's age, in the conditions of a health care institution, outside its borders and at the stages of medical evacuation , including in field conditions, on the basis of a preliminary clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes, in case of the need to expand the standard scheme, be able to justify personalized recommendations under the control of the head physician in the conditions of a medical institution. |
| PRN-10 | Determine the necessary mode of work, rest and nutrition on the basis of the final clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes. |
| PRN-14 | Determine tactics and provide emergency medical care in emergency situations (according to list 3) in limited time in accordance with existing clinical protocols and treatment standards. |

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| PRN-17 | Perform medical manipulations (according to list 5) in the conditions of a medical institution, at home or at work based on a previous clinical diagnosis and/or indicators of the patient's condition by making a reasoned decision, observing the relevant ethical and legal norms. |
| PRN-18 | To determine the state of functioning and limitations of a person's vital activities and the duration of incapacity for work with the preparation of relevant documents, in the conditions of a health care institution, based on data about the disease and its course, peculiarities of the person's professional activity, etc. Conduct medical documentation of patient and population contingent on the basis of regulatory documents . |
| PRN-21 | Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information. |
| PRN-22 | Apply modern digital technologies, specialized software, and statistical methods of data analysis to solve complex healthcare problems. |
| PRN-24 | To organize the necessary level of individual safety (own and the persons he cares for) in case of typical dangerous situations in the individual field of activity. |
| PRN-25 | It is clear and unambiguous to convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists. |
| PRN-27 | Communicate freely in the national and English languages, both orally and in writing to discuss professional activities, research and projects. |
| PRN-28 | Make effective decisions on health care issues, assess the necessary resources, take into account social, economic and ethical consequences. |

According to the requirements of the educational and professional program, students must:

know:

- normative documents of Ukraine in the field of epidemiology
- to know the measures for localization and elimination of the center of an infectious disease
- algorithm for assessing the epidemic state of the territory
- accounting and reporting documentation of the Ministry of Health of Ukraine
- quarantine measures for the most common and particularly dangerous infectious diseases
- the identification and testing of risk factors, the advantages and disadvantages of different types of epidemiological studies and measures demonstrating the presence of cause and effect relationships
- epidemiology of infectious and chronic diseases, ways of preventing their occurrence at various stages of the natural history of the disease and the role of epidemiological surveillance
- ethical, social and legal conditions for practicing the medical profession and the principles of health promotion, based on scientific evidence and accepted standards
- methods of conducting scientific research
- legal European regulations and basic methods of medical experimentation and other medical research, including basic methods of data analysis
- methods of individual and population health assessment, different systems of disease classification and medical procedures knows and understands the causes, symptoms, principles of diagnosis and management of therapeutic in relation to the most common diseases requiring surgical intervention surgical intervention, taking into account the peculiarities of pediatric age, including in particular: acute and chronic diseases of the abdominal cavity, diseases of the chest, diseases of the limbs and head, bone fractures and organ injuries;
- knows and understands the principles of qualification for basic surgical procedures and invasive diagnostic and therapeutic procedures, principles of their performance and most common complications;
- knows and understands the principles of perioperative safety, preparation of the patient for surgery, performance of general and local anesthesia and controlled sedation;

- knows and understands the processes involved in wound healing, knows the principles of wound treatment
- knows and understands the environmental and epidemiological conditions of the of the most common cancers;
- knows and understands the principles of palliative management of the patient in the state of terminal condition;
- principles of qualification for basic surgical procedures and invasive diagnostic and therapeutic procedures, the principles of their performance and the most common complications;
- principles of perioperative safety, preparation of the patient for surgery, performance of general and local anesthesia and controlled sedation;

be able:

- to interpret the causes of occurrence and patterns of development of the epidemic process
- conduct an epidemiological survey of the center of an infectious disease and an epidemic outbreak and develop measures for their elimination
- analyze the epidemic situation of the territory and population in the emergency zone, plan appropriate measures and organize their implementation
- the causes, symptoms, diagnostic and therapeutic management principles for the most common diseases requiring surgical intervention, taking into account the distinctness of childhood age, including in particular: 1) acute and chronic abdominal diseases, 2) thoracic diseases, 3) diseases of extremities and head, 4) fractures of bones and injuries to organs
- demonstrate the ability to enter accounting and reporting documentation
- plan own learning activities and constantly learn in order to update own knowledge
- inspire the learning process of others
- communicate and share knowledge with colleagues in a team
- critically evaluate the results of scientific research and adequately justify the position
- describe the demographic structure of the population, and based on that assess the health problems of the population
- assist in a typical surgical procedure, prepare the surgical field and apply local anesthesia to the operated area
- assist in a typical surgical procedure, prepare the surgical field and local anesthesia of the operated area;
- operating field and give local anesthesia to the operated area;
- use basic surgical instruments;
- follow the principles of asepsis and antisepsis;
- supply a simple wound, insert and change a sterile surgical dressing;
- insert a peripheral puncture;
- monitor the patient's condition in the postoperative period in the based on basic vital parameters;
- maintains the patient's medical records
- use basic surgical instruments
- adhere to the principles of asepsis and antisepsis
- manage a simple wound, put on and change a sterile surgical dressing
- make a peripheral puncture
- examine breasts, lymph nodes, thyroid gland and abdominal cavity in terms of acute abdomen and perform digital rectal examination
- manage external bleeding
- can tie a single and surgical knot
- can perform and interpret FAST ultrasound (Focused Assessment with Sonography for Trauma)
- insert a drain into the pleural cavity and connect the set for an active pleural drain
- insert a catheter into the bladder

- to take the informed and legally effective consent: a) for high-risk diagnostic procedures (e.g. gastroscopy, colonoscopy), endoscopic retrograde cholangiopancreatography) b) for high-risk diagnostic procedures (transcutaneous biopsy under control) USG) c) surgery to remove the gallbladder
- to pass on information about the death of a close friend and relative
- assess the indications for suprapubic puncture and participate in its performance
- assist in typical urological procedures (diagnostic and therapeutic endoscopy of the urinary tract, lithotripsy, prostate puncture)
- can examine the breasts, the abdomen and perform a digital rectal examination
- collect information on the presence of risk factors for communicable and chronic diseases and plan prevention activities at different levels of prevention
- selected issues in the field of pediatric surgery, including traumatology and otorhinolaryngology, as well as acquired defects and diseases being indications for surgical treatment in children
- rules of qualification for basic surgical procedures and invasive diagnostic and therapeutic procedures, rules of their performance and the most frequent complications
- principles of perioperative safety, patient preparation for surgery, general and local anesthesia and controlled sedation
- postoperative treatment with analgesic therapy and postoperative monitoring
- the causes, symptoms, principles of diagnosis and therapeutic management of the most common diseases requiring surgical intervention, taking into account the distinctness of childhood age and in particular: a) diseases of arterial and venous vessels b) diseases of the urinary tract c) heart and blood vessel diseases d) craniofacial diseases, acute and chronic diseases of the central nervous system
- the rules of qualification, what they consist of, how they take place and what are the possible complications and consequences of surgical procedures: a) removal of appendix, gallbladder b) excision of the thyroid, parathyroid, adrenal glands c) excision of part and entirety of the stomach, large intestine d) abdominal hernias, using synthetic mesh e) surgical treatment of obesity
- the qualifications rules, knows what they are, how they work and what are the possible consequences and complications of the following procedures: a) percutaneous and intraductive abdominal organ ultrasonography f) b) endoscopic gastrointestinal diagnostic and therapeutic procedures c) endoscopic diagnostic and respiratory therapeutic procedures (bronchoscopy, endoscopic ultrasound bronchoscopy) d) endoscopic diagnostic and therapeutic procedures for the urinary tract (cystoscopy) e) endoscopic diagnostic and therapeutic procedures for the locomotor system (arthroscopy) f) screening tests used for the early detection of gastrointestinal neoplasms
- the most common complications of the procedures
- in the basic scope, the issues of surgical transplantation, indications for transplantation of irreversibly damaged organs and tissues and the procedures related thereto
- interpret the measures of the incidence of diseases and disabilities
- to plan preventive and quarantine measures for the most common and particularly dangerous infectious diseases
- assess the epidemiological situation of diseases commonly found in Ukraine, neighbor countries and in the world

is ready to:

- formulate conclusions from own measurements or observations
- to be guided by the well-being of a patient
- respect medical confidentiality and patients' rights
- take actions towards the patient on the basis of ethical norms and principles, with an awareness of the social determinants and limitations of the disease
- use objective sources of information
- promote health-promoting behaviors
- establish and maintain deep and respectful contact with patients and to show understanding for differences

in world views and cultures.

2. Information volume of the academic discipline

12 ECTS credits of 360 hours are assigned to the study of the academic discipline .

Chapter 1/course 4 . Abdominal surgery _ Subsection 1. "Urgent abdominal surgery"

Topic 1 Acute appendicitis.

Atypical clinical picture of acute appendicitis

"Acute appendicitis. Anatomical and physiological information. Etiology and pathogenesis. Classification. Clinical picture of a typical course of acute appendicitis. Diagnosis and differential diagnosis of acute appendicitis. Tactics of acute appendicitis treatment. Types of appendectomies".

" Atypical forms acute appendicitis. Features of the course of acute appendicitis in pregnant women, children and elderly patients. Diagnostic and treatment program. The role of laparoscopic technologies in the diagnosis and treatment of patients with acute appendicitis. Complications of acute appendicitis: appendicular infiltrate , appendicular abscess , interloop , heartburn pelvic , pelvic and subdiaphragmatic abscesses, appendicular peritonitis. Pilephlebitis. Sepsis. Clinic, diagnostics, modern treatment tactics. Complications of appendectomy. Diagnosis and treatment."

Topic 2 Acute cholecystitis and its complications _

"Anatomical and physiological features of the biliary tract. Definition , etiology and acute pathogenesis cholecystitis Classification. Clinic, diagnosis, differential diagnosis. Surgical tactics. Peculiarities of the clinical course, clinical picture of acute cholecystitis and the diagnostic and treatment program in elderly patients and patients with accompanying pathology".

Topic 3 Complication acute cholecystitis and cholecystectomy

" Complication sharp cholecystitis (perforation bile bladder , perivesical infiltrate and abscess, cholangitis, cholangiogenic liver abscesses, biliary peritonitis, liver failure, mechanical jaundice, cholecystopancreatitis). Complication cholecystectomies (intraoperative damage extrahepatic bile ways , vessels , organs of the abdominal cavity). Diagnostics and surgical tactics. The role of minimally invasive methods in the diagnosis and treatment of complications of acute cholecystitis and cholecystectomy".

Topic 4 Acute pancreatitis.

"Etiology and pathogenesis, classification of acute pancreatitis. Periods of the clinical course of acute pancreatitis. Clinic of mild and severe acute pancreatitis. Diagnostic methods of acute pancreatitis: clinical , laboratory, instrumental - ultrasound, CT, laparoscopy. Differential diagnosis of acute pancreatitis."

Topic 5 Complication acute pancreatitis

Complications of acute pancreatitis: acute pseudocyst of the pancreas, abscess of the pancreas, widespread peritonitis, necrosis of the walls of cavity organs, bleeding into the abdominal cavity, acute ulcers of the alimentary canal, bleeding from acute ulcers into the cavity of the alimentary canal, perforation of acute ulcers. Modern treatment tactics for acute pancreatitis. Conservative therapy. Indications for surgical treatment. Methods of minimally invasive and open operative interventions."

Topic 6 Disease pancreatic glands and spleens, basics of pancreas transplantation.

"Chronic pancreatitis. Diagnostic methods. Clinic . Diagnostics . Differential diagnosis. Principles of conservative treatment. Indications for surgery . Complication chronic pancreatitis. Clinic. Diagnostics. Differential diagnosis. Treatment. Cysts and fistulas. Clinic. Diagnostics. Differential diagnosis. Complication cyst (suppuration , perforation , bleeding , malignancy) . Principles of surgical tactics. Indications for transplantation pancreatic glands and their justification . Technique of pancreas transplantation. Diseases of

the spleen (trauma, abscess, cysts, heart attack, splenomegaly, hypersplenism, Werlhof's disease, Bunty's disease, hemolytic jaundice, malarial splenomegaly). Clinic. Diagnostics. Differential diagnosis. Treatment. Indications for splenectomies. Postsplenectomy syndrome. Curation patients from pathology hepatopancreatobiliary areas ".

Topic 7 Complication ulcerative diseases stomach and duodenum. Gastrointestinal bleeding.

"Etiology and pathogenesis, classification of perforated gastroduodenal ulcers. Clinic of typical and atypical perforated gastroduodenal ulcer. Diagnostic program for perforated ulcer. Differential diagnosis of typical and atypical perforated gastroduodenal ulcer. Treatment tactics for perforated gastroduodenal ulcer. Preparing the patient for surgery and choosing the optimal way to perform surgery. Conservative therapy in the postoperative period". " Pyloroduodenal stenosis (pathogenesis, classification , clinic , features clinical manifestations different degrees of stenosis, differential diagnosis , methods research , conservative and operational treatment , species operations). Duodenal stenosis. Penetration of gastric and duodenal ulcers (pathogenesis, dependence of the clinic on the penetrating organ, differential diagnosis, research methods, conservative and operative treatment, types of operations). Malignancy ulcers (state of the problem , clinical manifestations, differential diagnosis , methods research , features operational interventions).

Etiology and pathogenesis of gastrointestinal bleeding. Bleeding clinic. Laboratory and endoscopic methods of diagnosis of gastrointestinal bleeding. Severity of bleeding. Differential diagnosis of gastrointestinal bleeding. Treatment tactics at bleeding : indications for choosing conservative treatment, endoscopic methods of hemostasis, surgical intervention. The choice of the method of surgical intervention in ulcer bleeding. Mallory-Weiss syndrome. Ulcer Delafois "

Topic 8 sharp intestinal impassability

"Etiology and pathogenesis. Typical clinical picture. Classification (by etiology, anatomical location, clinical course). Differential diagnosis. Peculiarities of examination of a patient with acute intestinal obstruction.

Mechanical intestinal impassability Early clinical signs of mechanical intestinal obstruction. Features of the clinical course of various forms of mechanical intestinal obstruction. Modern diagnostic methods. Peculiarities of preoperative preparation: correction of water-electrolyte disorders and acid-base balance. Features of general anesthesia. Surgical tactics for acute intestinal obstruction and types of surgical interventions depending on its cause. Peculiarities of management of the postoperative period. Consequences of surgical treatment. Dynamic intestinal obstruction. Classification. Features of the clinic. Principles of conservative and surgical treatment". "Adhesion disease. Etiology, pathogenesis. Classification. Clinic. Indications for surgical treatment. Peculiarities and types of operative interventions".

Topic 9 Sharp peritonitis

"Etiology, pathogenesis, classification of acute peritonitis. Clinical characteristics of the stages of peritonitis. Features of the clinical course of primary and secondary peritonitis. Clinical characteristics of local and widespread acute peritonitis. Diagnostic program. Instrumental research methods for acute peritonitis. Differential diagnosis of acute local and widespread peritonitis. Surgical tactics in acute local and widespread peritonitis. Puncture methods of treatment. Methods of prolonged rehabilitation of the abdominal cavity. Laparostomy. Intensive therapy for purulent peritonitis. Practical skills of working in a dressing room (wound care, drains, changing bandages, removing drains, removing sutures, diluting a wound, surgical treatment of a purulent focus). Work in the intensive care unit. Work in the operating room (assistance during operations, catheterization of central veins, induction of anesthesia, transfusion of blood products)

Subsection " Surgical gastroenterology , proctology and transplantology "

The purpose of the study subdivision :

interpret etiology , pathogenesis and classification, clinical picture of diseases of abdominal organs;
to determine methods diagnosis and draw up examination schemes, algorithms for conservative and surgical treatment of the specified diseases;
determine principles postoperative treatment and rehabilitation of patients with gastroenterological pathology;
identify factors risk occurrence of complications;
interpret results of laboratory and instrumental research;
demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination in surgery;
to make a prognosis of life and working capacity in case of gastroenterological, hepatobiliary and coloproctological pathology;
interpret general principles treatment , rehabilitation and prevention of the most common surgical diseases;
demonstrate skill driving medical documentation in the clinic of surgical diseases;
learn the main ones principles transplantation of liver, pancreas, intestines.

Topic 10 Classification abdominal hernia _

"External abdominal hernias. Definition. Actuality of theme. Classification. Etiology. Pathogenesis. Disease clinic. Modern methods of examination. General principles of surgical treatment. Indications and contraindications for surgery. Hernias of the white line of the abdomen. Umbilical hernias. Postoperative hernias. A typical clinic. Classification. Differential diagnosis of each type of hernia. Methods of surgical intervention: classical and laparoscopic. Inguinal and femoral hernias. A typical clinic. Classification. Differential diagnosis. Methods of surgical intervention (Lichtenstein, Cilbert, Shouldice, classical and laparoscopic methods). Complications of hernias (acute and chronic). Types of entrapment by mechanism, clinical picture. Classic clinic of entrapment and features of the clinical course of various forms of yoga . Differential diagnosis. Examination methods. Peculiarities of operative intervention in pinched hernias . Inflammation, injury, phlegmon of the hernial sac, intractability of the hernia, intestinal obstruction. Diagnosis, treatment". "Internal hernias. Definition. Classification. Etiology. Pathogenesis. Disease clinic. Complication. Treatment. Diaphragmatic hernias. Classification. Indications for operative treatment . Methods hernia operations _ esophagus opening diaphragm ".

Topic 11 Diseases liver _

"Fibrosis, liver cirrhosis. Surgical aspects of the topic. Pathogenesis, classification. Clinic. Complication. Diagnostic methods. Differential diagnosis. Treatment. Portal syndrome hypertension . Classification . Principles of conservative and operative treatment of portal hypertension and its complications. Liver failure. State of the problem. Classification. Pathogenesis. Clinical manifestations depending on the degree of severity. Modern methods of treatment of liver failure. Liver transplant. Indications and contraindications for liver transplantation. Methodology of donor selection. Methods of livertransplantation. Storage conditions of the donor liver and its transportation. Parasitic and non-parasitic lesions of the liver. Features of the clinic. Differential diagnosis. Examination methods. Complication. Principles treatment tactics".

Topic 12 Abscesses liver , parasitic infection non-parasiticists .

Etiology . Clinic, diagnostics. Examination methods. Complication. Treatment tactics. Principles of conservative treatment. Surgical tactics. Types of punctures and drainage of liver abscesses and cysts under ultrasound control. Indications for endoscopic, laparoscopic and interventions. "

Topic 13 Disease small and large intestine, indications for intestinal transplantation.

"Disease of the small intestine. Research methods. Classification surgical diseases thin intestines Diverticula, Meckel's diverticulum , its complications. Crohn's disease of the small intestine, intestinal infectious and parasitic diseases. Surgical tactics in complicated forms of infectious and parasitic diseases of the small intestine".

"Nonspecific ulcerative colitis (etiology, pathogenesis, classification, clinic, research methods, differential diagnosis, conservative and operative treatment). Colon Crohn's disease (etiology, pathogenesis, classification, clinic, research methods, differential diagnosis, conservative and operative treatment). Diverticular disease of the large intestine (etiology, pathogenesis, classification, clinic, research methods, differential diagnosis, conservative and operative treatment). Colon polyps and polyposis . Hamartomny polyposis (etiology, pathogenesis, classification, clinic, research methods, differential diagnosis, conservative and operative treatment). Chronic cholestasis . New technologies of surgical treatment of colon diseases (laparoscopic , endoscopic). Indications and contraindications for intestinal transplantation. Irritable bowel syndrome. Curation of patients, formulation of diagnosis and treatment regimens".

Topic 14 Disease rectum and soft tissues of the perineum.

"Acute and chronic hemorrhoids (etiology, pathogenesis, classification, clinic, features of clinical manifestations of various stages of hemorrhoid development, research methods, differential diagnosis, conservative and operative treatment, types of operations). Acute and chronic paraproctitis (etiology, pathogenesis, classification, clinic, research methods, differential diagnosis, conservative and operative treatment). Anal fissure, anal itching. Rectal prolapse. Other diseases of the rectum: rectocele, rectovaginal fistula, papillitis, solitary ulcer, proctalgia, insufficiency of the anal pulp. Etiology, pathogenesis, classification, clinic, research methods, differential diagnosis, conservative and operative treatment." "Diseases of the soft tissues of the perineum (pyoderma of the perineum, paraanal dermatitis, condylomatosis of the perineum, rare diseases of the soft tissues of the perineum). Epithelial coccygeal duct. Teratomas of pararectal localization. Curation of patients (student work with patients, collection of complaints, anamnesis, conducting a digital and instrumental examination of the rectum). Practical skills of working in a dressing room (wound care, drains, changing bandages, working in the operating room).

Topic 15 Protection stories diseases

Treatment of patients. Protection of medical history. Development of practical skills.

Chapter 2/course 5 . Thoracic, cardiovascular, endocrine surgery .

Topic 1 Injuries chest cages. Classification, early and late complications, differential diagnosis, first aid and treatment tactics. Purulent diseases of the lungs and pleura. Lung abscess and gangrene, bronchiectasis.

Acute and chronic pleural empyema, pyopneumothorax. Features of the clinical course, differential diagnosis, methods of conservative and surgical treatment.

Acute respiratory disease.. Etiology, clinic, diagnosis, treatment, prevention.

Acute and chronic purulent-inflammatory lung diseases (acute lung abscess and gangrene, chronic lung abscess, bronchiectasis, purulent cysts). Classification. Clinic. Diagnostics. Treatment tactics. Methods of surgical treatment. Acute and chronic pleural empyema, classification. Clinic, diagnosis. Treatment tactics. Methods surgical treatment _ Pyopneumothorax. Features of the clinical course. Differential diagnosis. Methods of conservative and surgical treatment.

Acute respiratory disease. Etiology, clinic, diagnosis, treatment, prevention.

Indications and contraindications for lung transplantation. Storage conditions of the donor lung and its transportation.

Traumatic damage to the chest. Blunt chest trauma. Classification. Early and late complications of blunt chest trauma. Clinical syndromes. Diagnostic program . Diagnostic methods. Differential diagnostics. First aid and treatment tactics. Penetrating damage to chest organs. Classification. Clinical and radiological characteristics of organ lesions. Diagnostic program and treatment tactics.

Frequency and classification of wounds and closed chest injuries. Clinical manifestations and diagnosis of various types of wounds and injuries. Types of pneumothorax. Degrees of hemothorax. Medical assistance in field conditions and extreme situations.

Topic 2 Ischemic heart disease. Diagnostics, indications for surgical treatment, methods of operative interventions.

Modern methods of diagnosis, minimally invasive surgical treatment of heart diseases.

Acquired heart defects. Indications and contraindications for heart transplantation. Ischemic heart disease. Classification. Clinic. Diagnostics. Indications for coronary angiography. Indications for surgical treatment. Methods of operative interventions. Modern methods of diagnosis and minimally invasive treatment of heart diseases. Heart transplantation.

Complications of myocardial infarction: acute mitral insufficiency, post-infarction defect of the interventricular membrane, heart aneurysm, heart rhythm disorders. Indications for surgical treatment. Methods of operative interventions.

Acquired heart defects. Etiology. Classification of acquired heart defects. Clinic and diagnosis of mitral, aortic and tricuspid heart defects. Differential diagnosis. Indications for surgical treatment. Methods of operative interventions.

Methods of operative interventions. Cardiothoracic transplantation.

Topic 3 Diseases of borders and walls. Diseases and injuries of the esophagus. Classification, diagnosis, differential diagnosis, methods of surgical treatment.

Disease interstices _ Interstitial tumors and cysts. Classification. Clinical symptoms and syndromes. Diagnostic methods. Differential diagnosis. Treatment tactics. Principles of surgical treatment.

Pericardial disease. Exudative and constrictive pericarditis. Clinical symptoms. Diagnostic program

and treatment tactics.

Acute mediastinitis. Etiology, pathogenesis. Clinic, diagnosis, treatment. Diseases and traumatic injuries of the esophagus: achalasia, diverticula, benign tumors and cysts, foreign bodies, burns and mechanical injuries of the esophagus, cicatricial narrowing of the esophagus. Gastroesophageal reflux disease and Barrett's esophagus. Hernias of the esophageal opening of the diaphragm. Clinic, diagnosis, treatment.

Topic 4 Euthyroid and toxic goiter. Classification, diagnostic methods, differential diagnosis, preoperative preparation, surgical treatment.

Thyroid cancer. Classification, clinic, diagnosis, methods of treatment.

Thyroiditis. Classification, clinic, diagnosis, treatment.

Disease thyroid glands _ Euthyroid and toxic goiter. Classification. Clinic, diagnostics. Special research methods. Differential diagnosis. Surgical treatment.

Thyroid cancer. Classification, clinic, diagnosis, methods of treatment.

Classification. Clinical course. Diagnostics. Methods of treatment. Indications for surgical treatment.

Hyperparathyroidism: classification, clinic, diagnosis, treatment.

Topic 5 Tumors adrenal glands. Classification, clinical course, diagnosis, preoperative preparation, methods of surgical treatment. Diseases of the mammary gland (dys hormonal, tumor). Mastitis.

Tumors of the adrenal glands. Classification. Clinical course. Diagnostics.

Preoperative preparation. Methods of surgical treatment.

Diseases of the mammary gland (dys hormonal, tumor). Classification. Early diagnostics . Methods surgical and complex treatment _ Mastitis. Lactating and non-lactating. Problems of surgical and minimally invasive methods

Department "Vascular Surgery"

The purpose of studying the unit:

learn anatomical and physiological features vascular system;

interpret etiology , pathogenesis and classification, clinical picture of diseases of the vascular system;

determine methods diagnostics , algorithms of conservative and surgical treatment of diseases of the vascular system;

determine principles postoperative treatment and rehabilitation of patients with pathology of the vascular system;

identify factors risk occurrence of complications in surgical diseases of the vascular system;

interpret results of laboratory and instrumental research in surgical diseases of the vascular system;

demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination in a vascular surgery clinic;

to make a prognosis of life and working capacity in case of surgical diseases of the vascular system;

interpret general principles treatment , rehabilitation and prevention

the most common surgical diseases of the vascular system;

demonstrate skill driving medical documentation in the clinic of vascular surgery;

give urgent medical help with surgical diseases of the vascular system.

Topic 6 Aneurysms aorta. Definition , causes , classification , clinic , diagnostic program and treatment .

Definition , causes of occurrence . Classification, clinic, diagnostic program and treatment. Features of the diagnostic program and treatment of stratifying aneurysm. Peculiarities of treatment depending on the place of localization.

Injury of main vessels. Classification. Clinic, diagnosis. Emergency care at the pre-hospital stage. Treatment tactics. Classification of bleeding depending on the source of bleeding, time of its occurrence and degree of blood loss. Clinical picture of bleeding and acute blood loss. Methods of determining the amount of blood loss in field conditions and in emergency situations. Indications for blood transfusion in war. Control of suitability of blood for transfusion. Blood transfusion technique. Types of transfusion solutions and indications for their use. Possible complications with blood transfusion. Their prevention and treatment.

Means of temporary, final stopping of bleeding. Indications for blood transfusion and blood substitutes. Methodology for calculating the need for blood and blood substitutes in field conditions and in emergency situations.

Topic 7 sharp ischemia limbs. Classification, clinical stages of the course, diagnosis, differential diagnosis, methods of surgical treatment. Chronic ischemia of the lower extremities. Obliterating atherosclerosis and endarteritis . Classification of chronic ischemia and levels of occlusion of the aorta and arteries of the lower extremities, diagnosis, methods of treatment.

Arterial thrombosis and embolism . Classification of acute limb ischemia. Clinical stages of the course. Diagnostic program. Differential diagnostics . Treatment tactics. Methods of surgical treatment. Chronic ischemia of the lower extremities. Obliterating atherosclerosis and endarteritis. Classification of chronic ischemia. Modern instrumental diagnostic objectification of pathology. Treatment.

Topic 8 Abdominal ischemic syndrome. Classification, clinical variants of the course, diagnosis, differential diagnosis, complications, methods of conservative and surgical treatment, prevention, rehabilitation .

Varicose veins of the lower extremities. Classification, diagnosis, complications, methods of surgical treatment.

Abdominal ischemic syndrome. Variants of the clinical course. Complication. Diagnosis and differential diagnosis. Methods of treatment.

Chronic venous insufficiency. Varicose veins of the lower extremities. Classification. Diagnosis and differential diagnosis. Complication. Methods of conservative and surgical treatment.

Topic 9 Thrombosis main veins Classification, clinic, diagnosis, differential diagnosis, methods of conservative and surgical treatment. Postthrombophlebitic syndrome. Classification , diagnosis , conservative and surgical methods treatment _

Thromboembolism of the pulmonary artery. Clinic, diagnostics, treatment, means of prevention.

Thrombosis main veins Classification. Clinic. Diagnostics. Differential diagnosis. Complication. Methods of conservative and surgical treatment. Post-thrombophlebitis syndrome. Classification . Course and complications _ Diagnostics. Conservative and surgical methods of treatment.

Thromboembolism of the pulmonary artery. Causes and risk factors. Classification. Clinic of various forms of course, diagnostic program Algorithm of treatment tactics. Anticoagulant and thrombolytic therapy. Surgical treatment. Means of prevention.

Topic 10 Lymphaedema limbs. Forms of the disease. Clinic. Diagnostics. Variants of the clinical course. Conservative and surgical treatment.

Treatment of patients. Protection stories diseases processing practical skills

Lymphedema of the extremities. Forms of the disease. Clinic. Diagnostics. Variants of the clinical course. Conservative and surgical treatment.

Treatment of patients. Protection of medical history. Development of practical skills.

Topic 1 New technologies in surgery. Modern methods of diagnosis and treatment. Principles of transplantology , clinical manifestations of decompensation of the function of vital organs.

The latest methods in surgical practice. Diagnostics in surgery, new methods of diagnosing various diseases.

Transplantology in Ukraine, main aspects. Principles of transplantology . The main manifestations of decompensation of vital organs.

Topic 2 Sepsis in surgical patients. Systemic inflammatory response syndrome. Pathogenesis and significance in various diseases and injuries. Diagnosis and treatment.

The concept of sepsis. Systemic inflammatory response syndrome, its consequences. Clinic, diagnosis, treatment.

Topic 3 Shock in surgical patients, diagnosis, treatment. Principles of transfusiology.

The concept of shock. Types of shocks. Clinic, diagnosis, treatment. Transfusiology in Ukraine. Basic aspects and principles of transfusiology.

Topic 4 Critical condition in surgical patients: multiple organ failure syndrome, acute respiratory distress syndrome, acute cardiovascular failure syndrome, acute renal failure. Clinic, diagnosis, treatment.

Multiple organ failure, causes, clinic, diagnosis, treatment.

Acute respiratory distress syndrome, first aid.

Acute renal failure: clinic, diagnosis, treatment

Topic 5 Acute liver failure. Acute respiratory disease. Etiology, clinic, diagnosis,treatment.

Acute liver failure - etiology, clinic, diagnosis, treatment.

Acute respiratory disease. Manifestations, etiology, clinic, diagnosis, treatment,prevention.

Topic 6 Bleeding and blood loss. Classification, clinical picture of bleeding and acute blood loss. Methods of determining the amount of blood loss. Means to stop bleeding. Blood Transfusion.

The concept of blood loss. Classification of blood loss . Clinical pictures of external and internal bleeding. Methods of determining the amount of blood loss. Stopping blood loss, their methods.

Blood transfusion rules.

Topic 7 Purulent disease skin and soft tissues. Mastitis. Tuberculosis of tissues and organs. Diagnosis, differential diagnosis. Methods of conservative and surgical treatment.

Types of purulent diseases of the skin and soft tissues. Etiology, pathogenesis.

Tuberculosis of tissues and organs. Clinic, diagnosis and treatment. Prevention. Differential diagnosis of tuberculosis.

Extrapulmonary tuberculosis in surgery

Topic 8 AIDS in a surgical clinic

Peculiarities of examination and provision of surgical care to HIV-positive patients. Peculiarities of patient management. Adequate security at operations.

Topic 9 Features I will run surgical diseases in pregnant women and the elderly. Diagnosis and differential diagnosis of acute diseases of the abdominal cavity, examination features, surgical tactics, prevention of premature birth.

Peculiarities of management of pregnant women with inflamed abdomen syndrome. Basic surgical aspects in pregnant women.

Peculiarities of examination and treatment. Surgical tactics for acute abdomen in a pregnant woman.

Topic 10

Modern surgical trauma in disasters, emergency situations and combat operations, principles of evacuation measures. Classification of injuries. Pathomorphology wounded process, clinical picture, treatment firearms wounds Primary and secondary surgical wound treatment.

Patient management tactics after accidents and emergency situations. Classification of injuries. Combat actions and injuries during them. Pathomorphology of the wound process. Pathomorphology of gunshot wounds. Tactics, diagnosis, treatment.

Topic 11

Acute abdominal syndrome. Diagnosis, differential diagnosis and treatment tactics. Differential diagnosis of acute diseases of abdominal organs.

Acute abdomen - primary actions, diagnosis, treatment,

Surgical complications in patients with infectious pathology. Differential diagnosis between acute surgical and infectious diseases.

Topic 12 Bleeding from the digestive tract. Causes, clinic, diagnosis, differential diagnosis, treatment.

The main causes of bleeding from the alimentary canal. Primary actions for bleeding from the alimentary canal. Patient management tactics. Clinic, diagnosis, differential diagnosis, treatment.

Hemostatic drugs.

Topic 13. Abdominal injuries. Symptoms of damage to the organs of the abdominal cavity and retroperitoneal space, methods of diagnosis, treatment tactics.

Types of abdominal injuries. Closed injuries. Risks of damage to internal organs. Diagnosis, differential diagnosis, patient management tactics.

Topic 14. Differential diagnosis and treatment of diseases of the rectum and pararectal space.

Diseases of the rectum. Inflammation of hemorrhoidal sinuses. Clinic, diagnosis and treatment.

Conditions of increased danger in diseases of the rectum and pararectal space

Topic 15 Differential diagnosis and treatment of fistulas of the alimentary canal

Fistula of the alimentary canal, their varieties. Clinical picture, etiology, pathogenesis, diagnosis, differential diagnosis, treatment.

Topic 16 External and internal abdominal hernias. Classification, clinic, diagnosis, treatment.

Abdominal hernias. Hernias of the white line. Repair and non-repairable hernias. Clinical picture, etiology, pathogenesis, diagnosis, differential diagnosis, treatment.

Chapter 4/course 6 Clinical surgery training

The purpose of studying the unit:

- Gain a deep understanding of the anatomical and physiological aspects pertinent to various surgical procedures.
- Learn the etiology, pathogenesis, and classification of common surgical diseases, along with their clinical manifestations.
- Acquire skills in employing appropriate diagnostic methods and interpreting results for surgical conditions.
- Gain practical skills in performing a range of surgical procedures, understanding the principles of operative techniques, and managing preoperative and postoperative care.
- Understand the principles of managing patients in a surgical setting, including postoperative care, rehabilitation, and the prevention of complications.
- Learn about various conservative and surgical treatment options for different surgical conditions, along with their indications and contraindications.
- Identify and manage risk factors associated with surgical procedures and patient outcomes.
- Develop a strong foundation in the moral, ethical, and professional responsibilities of a surgeon, including patient confidentiality and informed consent.
- Learn to make accurate prognoses regarding life and work capacity post-surgery and understand the principles of rehabilitation for surgical patients.
- Engage with current research in the field of clinical surgery, understanding how to apply evidence-based practices in surgical care.
- Acquire skills in maintaining accurate and comprehensive medical records in a clinical surgery setting.
- Develop the ability to provide urgent and effective medical intervention in emergency surgical situations.
- Learn the importance of working collaboratively with other healthcare professionals in a multidisciplinary team to provide holistic surgical care.

3. The structure of the academic discipline

| Topic | Lectures | Practical | Individual work |
|--|-----------|-----------|-----------------|
| Chapter 1 / course 5. "Abdominal surgery" | | | |
| Subsection 1. "Urgent abdominal surgery" | | | |
| Topic 1. Acute appendicitis. Atypical clinical picture of acute appendicitis | 2 | 3 | 4 |
| Topic 2. Acute cholecystitis. | 2 | 3 | 4 |
| Topic 3. Complications of acute cholecystitis | - | 3 | 4 |
| Topic 4. Etiology, pathogenesis and classification of acute pancreatitis | 1 | 3 | 4 |
| Topic 5. Complications of acute pancreatitis. | - | 3 | 4 |
| Topic 6. Chronic pancreatitis. | - | 3 | 4 |
| Subsection 2. "Surgical gastroenterology, proctology and transplantology" | | | |
| Topic 7. Complications of gastric and duodenal ulcers. Gastrointestinal bleeding. | - | 3 | 4 |
| Topic 8. Acute intestinal obstruction | 1 | 3 | 4 |
| Topic 9. Etiology, pathogenesis, classification of acute peritonitis. | - | 3 | 4 |
| Topic 10. Classification of abdominal hernias | 1 | 3 | 4 |
| Topic 11. Liver disease | 1 | 3 | 4 |
| Topic 12. Liver abscesses and cysts. | 1 | 3 | 4 |
| Topic 13. Diseases of the small and large intestine. | 1 | 2 | 4 |
| Topic 14. Diseases of the rectum and perineum. | - | 2 | 4 |
| Topic 15. Credit lesson. Protection of medical history | | 1 | 4 |
| Hours | 10 | 41 | 60 |
| Chapter 2 / course 5. "Thoracic the heart and blood vessels, endocrinal surgery" | | | |
| Subsection 1 "Ore Surgery , Heart Surgery, Endocrine Surgery" | | | |
| Topic 1. Chest injuries. Purulent diseases of the lungs and pleura. | 1 | 4 | 2 |
| Topic 2. Ischemic heart disease. Acquired heart defects. | 2 | 4 | 3 |
| Topic 3. Surgical pathology of the interstitium . | - | 4 | 2 |
| Topic 4. Euthyroid and toxic goiter. Thyroid cancer. Thyroiditis . | 0.5 | 4 | 3 |
| Topic 5. Tumors of the adrenal glands. | 0.5 | 4 | 2 |
| Subsection 2 "Vascular surgery" | | | |
| Topic 6. Aortic aneurysm. Bleeding and blood loss. | 2 | 4 | 3 |
| Topic 7. Acute and chronic ischemia of the lower extremities. | 1 | 4 | 2 |
| Topic 8. Abdominal ischemic syndrome. Varicose veins of the lower extremities. | 1 | 4 | 3 |
| Topic 9. Thrombosis of main veins. After thrombophlebitis syndrome. Thromboembolism of the pulmonary artery. | 2 | 4 | 2 |
| Topic 10. Lymphedema of the extremities. Protection of medical history. | - | 4 | 3 |
| Hours | 10 | 40 | 25 |
| Chapter 3/course 6 "Symptoms syndrome in surgery" | | | |

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|---|--|---|---|
| Topic 1. New technologies in surgery. Modern methods of diagnosis and treatment. Principles of transplantology , clinical manifestations of decompensation of the function of vital organs. | | 3 | 2 |
| Topic 2. Sepsis in surgical patients. Systemic inflammatory response syndrome. Pathogenesis and significance in various diseases and injuries. Diagnosis and treatment. | | 3 | 2 |
| Topic 3. Shock in surgical patients, diagnosis, treatment. Principles of transfusiology. | | 3 | 2 |
| Topic 4. Critical condition in surgical patients: multiple organ failure syndrome, acute respiratory distress syndrome, acute cardiovascular failure syndrome, acute renal failure. Clinic, diagnosis, treatment. | | 3 | 2 |
| Topic 5. Acute liver failure. Acute respiratory disease. Etiology, clinic, diagnosis, treatment. | | 4 | 2 |
| Topic 6. Bleeding and blood loss. Classification, clinical picture of bleeding and acute blood loss. Methods of determining the amount of blood loss. Means to stop bleeding. Blood Transfusion. | | 4 | 2 |
| Topic 7. Purulent diseases of the skin and soft tissues. Mastitis. Tuberculosis of tissues and organs. Diagnosis, differential diagnosis. Methods conservative surgical treatment _ | | 4 | 2 |
| Topic 8. AIDS in a surgical clinic: peculiarities of examination and provision of surgical care to patients. Prevention of intraoperative injury and infection of surgeons | | 3 | 2 |
| Topic 9. Peculiarities of the course of surgical diseases in pregnant women and the elderly. Diagnosis and differential diagnosis of acute diseases of the abdominal cavity, examination features, surgical tactics, prevention of premature birth. | | 3 | 2 |
| Topic 10. Modern surgical trauma in disasters, emergency situations and combat operations, principles of evacuation measures. Classification of injuries. Pathomorphology wounded process , clinical picture, treatment firearms wounds Primary and secondary surgical wound treatment | | 4 | 2 |
| Topic 11. Acute syndrome stomach Diagnosis, differential diagnosis and treatment tactics. Differential diagnosis of acute diseases of abdominal organs. Surgical complications in patients with infectious pathology. Differential diagnosis between acute surgical and infectious diseases. | | 3 | 2 |
| Topic 12. Bleeding from the digestive tract. Causes, clinic, diagnosis, differential diagnosis, treatment. | | 3 | 1 |
| Topic 13. Abdominal injuries. Symptoms of damage to the organs of the abdominal cavity and retroperitoneal space, methods of diagnosis, treatment tactics. | | 3 | 2 |
| Topic 14. Differential diagnosis and treatment of diseases of the rectum and pararectal space . | | 3 | 1 |

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| Topic 15. Differential diagnosis and treatment of fistulas of the alimentary canal | | 3 | 1 |
| Topic 16. External and internal abdominal hernias. Classification, clinic, diagnosis, treatment. | | 3 | 1 |
| Hours | | 52 | 28 |
| <i>Chapter 4/course 6. "Clinical surgery module"</i> | | | |
| Examination and diagnosis of the patient with acute abdomen | | 4 | 1 |
| Shock | | 4 | 1 |
| Hernias | | 4 | 1 |
| Thyroid and parathyroid glands. | | 4 | 1 |
| Congenital malformations of the gastrointestinal tract | | 4 | 1 |
| Pediatric thoracic surgery | | 4 | 1 |
| Burns in children | | 4 | 1 |
| Head injuries in children. Congenital malformations of the nervous system. | | 4 | 1 |
| Congenital heart defects. | | 4 | 1 |
| Surgery in acute cardiological conditions ("acute heart"). | | 4 | 1 |
| Principles of anticoagulation (cardiovascular system). | | 4 | 1 |
| Thoracic cavity diseases. | | 4 | 1 |
| Diseases of the bile ducts. | | 4 | 1 |
| Colon cancer. | | 4 | 1 |
| Perioperative care (ERAS). | | 4 | 1 |
| Pancreas. | | 4 | 1 |
| Bariatric and metabolic surgery. | | 4 | 1 |
| Rules for qualifying for cardiac surgery and postoperative management | | 4 | 1 |
| Anatomy. Stomach pain | | 3 | 0,5 |
| Anatomy. Abdominal and pelvic walls and abdominal hernia anatomy. | | 3 | 0,5 |
| Anatomy. Peritoneum. Glandular floor. | | 3 | 0,5 |
| Anatomy: Pelvic organs - rectum | | 3 | 0,5 |
| Hepatobiliary surgery. | | 4 | 1 |
| Gastric surgery | | 4 | 1 |
| Endoscopy | | 4 | 1 |
| Brest surgery | | 4 | 1 |
| Gastric cancer. Pancreatic cancer. Colorectal cancer. | | 3 | 1 |
| Pancreatic cancer | | 3 | 1 |
| Urological emergencies. Urogenital injuries - conservative and surgical treatment. | | 3 | 1 |
| Urolithiasis including modern treatment methods: ESWL, PCNL, URS. Urinary incontinence in men and women. Basic knowledge of gynecological urology. | | 3 | 1 |
| Intracranial hypertension. Clinical symptomatology, recognition. Treatment. Craniocerebral injuries. Fractures of the skull bones (vaults and bases). Intracranial hematomas. Diffuse axonal injury. | | 4 | 1 |
| Laboratory teaching of surgical skills. | | 4 | 1 |
| Clinical class Hours | | 120 | 30 |
| Exam | | 4 | |

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|-------------------------------------|-----------|------------|------------|
| Total 14.0 credits/420 hours | 20 | 257 | 143 |
|-------------------------------------|-----------|------------|------------|

Thematic plan of lectures

| No | Topic |
|----|--|
| | <i>Chapter 1 / course 5. Abdominal surgery.</i> |
| 1 | Acute appendicitis and its complications. |
| 2 | Acute cholecystitis and its complications. |
| 3 | Acute pancreatitis and its complications. |
| 4 | Liver disease. Liver failure. |
| 5 | External and internal abdominal hernias and their complications. |
| 6 | Acute intestinal obstruction. |
| 7 | Diseases of the small and large intestine. |
| | <i>Chapter 2 / course 5. Thoracic the heart and blood vessels, endocrinal surgery .</i> |
| 1 | Surgical endocrinology. Surgical pathology of the respiratory system |
| 2 | Acquired heart defects. Choice of treatment method. Coronary heart disease. Methods of surgical treatment |
| 3 | Aortic aneurysms. Clinic, diagnosis, treatment. |
| 4 | Obliterating atherosclerosis of the vessels of the lower extremities and pelvis. Diagnosis and treatment of acute and chronic diseases of the peripheral veins of the upper and lower extremities. |
| 5 | Thrombosis of main veins. |
| | In total |
| | Together for discipline |

Thematic plan for lectures

| No | Topic |
|----|---|
| | <i>Chapter 1 / course 5. Abdominal surgery.</i> |
| 1 | Acute appendicitis. Atypical clinical picture of acute appendicitis |
| 2 | Acute cholecystitis. |
| 3 | Complications of acute cholecystitis |
| 4 | Etiology, pathogenesis and classification of acute pancreatitis |
| 5 | Complication acute pancreatitis. Modern therapeutic tactics in acute pancreatitis ,conservative therapy , indications for surgery treatment , methods minimally invasive and open operational interventions . |
| 6 | Chronic pancreatitis. clinic , methods diagnostics , complication chronic pancreatitis, principles treatment _ Cysts and fistulas pancreatic glands _ Principles surgical tactics. Indications and rationale for transplantation pancreatic glands _ Disease spleen _ |

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| | Diagnosis and treatment . |
| 7 | Complications of peptic ulcer disease of the stomach and duodenum: perforation, pyloroduodenal stenosis, penetration , malignancy . Etiology , pathogenesis, classification, diagnostic methods, treatment tactics, types of surgical interventions . Principles preoperative preparation patients _ Gastrointestinal bleeding _ |
| 8 | Acute intestinal obstruction. Etiology and pathogenesis, classification, typical clinical picture, methods of diagnosis, differential diagnosis, features of the clinical course of various forms of acute intestinal obstruction, principles of conservative and surgical treatment of acute intestinal obstruction |
| 9 | Etiology and pathogenesis, classification sharp peritonitis . Clinic , diagnosis and therapeutic tactics in acute peritonitis _ |
| 10 | Classification of abdominal hernias. Etiology, pathogenesis, clinic of the disease, principles of surgical treatment. Complication hernia _ |
| 11 | Liver disease. Fibrosis, liver cirrhosis. Pechinkova insufficiency . Principles conservative and operative treatment portal hypertension and its complications . Indications and contraindications for transplantation liver |
| 12 | Liver abscesses, parasitic and non-parasitic cysts: etiology, clinic, methods of examination, complications, treatment tactics. |
| 13 | Disease small and large intestine. Non-specific ulcerous Colitis _ Crohn's disease. Diverticular disease and polyposis colon _ Indications for intestinal transplantation . |
| 14 | Disease rectum - hemorrhoids , paraproctitis, anal crack , loss rectum _ Disease soft tissues of the perineum . Epithelial Coccygeal move _ |
| 15 | Protection of medical history |
| Chapter 2 / course 5 . Thoracic the heart and blood vessels, endocrinal surgery . | |
| 1 | Injuries chest cages _ Classification . Early and late complications _ Differential diagnostics . The first hospital help and tactics of treatment . Purulent disease lungs and pleura . Lung abscess and gangrene , bronchiectasis . sharp and chronic empyema pleura , pyopneumothorax . Clinical features I will run Differential diagnostics . Conservative and surgical methods treatment _ |
| 2 | Ischemic disease hearts _ Diagnostics . Indications for surgery treatment _ Methods operational interventions . Modern methods diagnostics , minimally invasive surgical treatment diseases hearts _ Acquired heart defects . Classification . Diagnostics . Indications for surgery treatment _ Methods operational interventions . Complications . |
| 3 | Diseases of the borders of the wall . Classification . Diagnostics . Differential diagnostics . Methods surgical treatment _ Diseases and injuries esophagus _ |
| 4 | Euthyroid and toxic goiter. Classification . Methods diagnostics . Differential diagnostics . Preoperative preparation _ Surgical treatment _ Thyroid cancer glands _ Classification , clinic , diagnosis , methods treatment _ Thyroiditis . Classification , clinic , diagnosis, treatment . |
| 5 | Tumors adrenal glands _ Classification . Clinical ran over Diagnostics . Preoperative cooking _ Methods surgical treatment _ Dyshormonal disease dairy glands _ Disease dairy glands (dyshormonal , tumorous). Mastitis. |
| 6 | Aneurysms aorta _ Definition of , reasons occurrence _ Classification , clinic , |

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| | diagnostic program and treatment . |
| 7 | Acute limb ischemia. Classification, clinical stages of the course, diagnosis,differential diagnosis, methods of surgical treatment. Chronic ischemia of the lower extremities. Obliterating atherosclerosis and endarteritis . Classification of chronic ischemia and levels of occlusion of the aorta and arteries of the lower extremities, diagnosis, methods of treatment. |
| 8 | Abdominal ischemic syndrome. Classification. Clinical course options. Diagnostics . Differential diagnostics . Complications . Methods of conservative treatment .Prevention . Rehabilitation . Varicose veins expansion of the lower veins limbs _ Classification . Diagnostics . Complications . Methods surgical treatment _ |
| 9 | Thrombosis main veins Classification , clinic , diagnosis , differential diagnostics , conservative and surgical methods treatment _ Postthrombophlebitic syndrome. Classification , diagnosis , conservative and surgical methods treatment _ Thromboembolism pulmonary arteries _ Clinic , diagnosis , treatment , means prevention . |
| 10 | Lymphedema of the extremities. Forms of the disease. Clinic. Diagnostics . Conservative and surgical treatment _ Writing stories diseases |
| Chapter 3/course 5 « Symptomitis syndromes in surgery » | |
| 1 | New technologies in surgery. Modern methods of diagnosis and treatment. Principles of transplantology , clinical manifestations of decompensation of the function of vital organs. |
| 2 | Sepsis in surgical patients. Systemic inflammatory response syndrome. Pathogenesis and significance in various diseases and injuries. Diagnosis and treatment. |
| 3 | Shock in surgical patients, diagnosis, treatment. Principles of transfusiology. |
| 4 | Critical condition in surgical patients: multiple organ failure syndrome, acuterespiratory distress syndrome, acute cardiovascular failure syndrome, acute renal failure. Clinic, diagnosis, treatment. |
| 5 | Acute liver failure. Acute respiratory disease. Etiology, clinic, diagnosis, treatment. |
| 6 | Bleeding and blood loss. Classification, clinical picture of bleeding and acute blood loss. Methods of determining the amount of blood loss. Means to stop bleeding. Blood Transfusion. |
| 7 | Purulent diseases of the skin and soft tissues. Mastitis. Tuberculosis of tissues andorgans . Diagnostics , differential diagnostics . Methods conservative surgical treatment _ |
| 8 | AIDS in a surgical clinic: peculiarities of examination and provision of surgical care to patients. Prevention of intraoperative injury and infection of surgeons |
| 9 | Peculiarities of the course of surgical diseases in pregnant women and the elderly. Diagnosis and differential diagnosis of acute diseases of the abdominal cavity, examination features, surgical tactics, prevention of premature birth. |
| 10 | Modern surgical trauma in disasters, emergency situations and combat operations, principles of evacuation measures. Classification of injuries. Pathomorphology of thewound process, clinical picture, treatment of gunshot wounds. Primary and secondary surgical wound treatment |
| 11 | Acute abdominal syndrome. Diagnosis, differential diagnosis and treatment tactics. Differential diagnosis of acute diseases of abdominal organs. |

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| | Surgical complications in patients with infectious pathology. Differential diagnosis between acute surgical and infectious diseases. |
| 12 | Bleeding from the digestive tract. Causes, clinic, diagnosis, differential diagnosis, treatment. |
| 13 | Abdominal injuries. Symptoms of damage to the organs of the abdominal cavity and retroperitoneal space, methods of diagnosis, treatment tactics. |
| 14 | Differential diagnosis and treatment of diseases of the rectum and pararectal space . |
| 15 | Differential diagnosis and treatment of fistulas of the alimentary canal |
| 16 | External and internal abdominal hernias. Classification, clinic, diagnosis, treatment. |
| Chapter 4/course 6. Clinical surgery module | |
| 17 | Clinical classes |
| 18 | Exam |

Topics of independent work

| No | Topic |
|--|--|
| Chapter 1 / course 5. Abdominal surgery. | |
| 1 | Preparation for practical classes. Preparation and processing practical skills _ |
| 2 | Work in a hospital. Work in a dressing room. Treatment of patients. |
| 3 | Writing medical history |
| Chapter 2 / course 5 . Thoracic the heart and blood vessels, endocrinal surgery . | |
| 1 | Preparation for practical classes. Preparation and processing practical skills _ |
| 2 | Work in a hospital. Work in a dressing room. Assisting in operations Curation of patients. |
| 3 | Writing medical history |
| Chapter 3/course 5 Symptomitis syndromes in surgery | |
| 1 | Preparation for practical classes |
| 2 | Differential diagnosis of gastrointestinal bleeding ; |
| 3 | Functional, instrumental research methods for diseases of the stomach , small and large intestine; |
| 4 | Trophic ulcers. Definition of the concept. Etiology, features of the course. Treatment; |
| 5 | Exudative and constrictive pericarditis; |
| 6 | Surgical complications in patients with infectious pathology. Differential diagnosis between acute surgical and infectious diseases; |
| 7 | Differential diagnosis and treatment of mediastinal diseases; |
| 8 | Clinic, diagnosis, differential diagnosis and treatment of phlegmon of the neck,inguinal area, subpectoral phlegmon; |
| 9 | Anticoagulant and thrombolytic therapy in acute thrombosis. Prophylactic anticoagulant therapy; |
| 10 | Treatment of patients. Preparation of medical history. |
| Chapter 4/course 6. Clinical surgery module | |
| 11 | Preparation for clinical classes |
| 12 | Preparation for the exam |

4. Individual tasks.

Individual tasks are one of the forms of organization of education at the university, which aims to deepen, generalize and consolidate the knowledge that students receive in the process of learning, as well as the application of this knowledge in practice. Individual tasks are performed by students independently under the guidance of the teacher.

To individual tasks include : writing essays and creation multimedia presentations with reports at meetings scientific student circle departments , participation in the manufactured macro - and micropreparations , participation in scientific - research work departments , participation in writing theses and articles reports on student scientific conferences .

The list of tasks for the student's individual work: a part in the work of the student scientific circle and speeches at scientific forums ; in part in the student Olympiad with disciplines ; n selection of video and audio materials from sections of the academic discipline ; selection of materials and creation of a presentation on a relevant topic or section of the discipline .

5. Teaching methods

According to the sources of knowledge, teaching methods are used: verbal - story, explanation, lecture, instruction; visual - demonstration, illustration; practical - practical work, problem solving. According to the nature of the logic of knowledge, methods are used: analytical, synthetic, analytical- synthetic, inductive, deductive. According to the level of independent mental activity, the following methods are used: problem-based, searching, research.

1. Verbal methods: lecture, interactive lecture, conversation;
2. Visual methods: illustration, demonstration, demonstration at the patient's bedside;
3. Practical methods: performing practical work and solving situational tasks to develop skills and abilities; simulation training , assisting during a surgical intervention by a doctor.
4. Students' independent work on understanding and assimilation of new material
5. Use of control and educational computer programs
6. Innovative teaching methods: Case-based learning (Learning through the analysis of a clinical case, situation); brainstorming; educational discussion; educational debate; role play; team-based learning; think-pair-share.

The types of training according to the curriculum are: lectures; practical training; independent work of students.

6. Control methods

Current control is carried out on the basis of control theoretical knowledge, practical skills and abilities.

Forms of current control are: *in the dream survey* (frontal, individual, combined), interview; **practical verification of the formed professional skills** (carried out based on the results of solving clinical cases, working with medical documentation, performing practical skills, working at the patient's bedside); **test control** ("open" and "closed" test tasks).

Current control is mandatory. During the evaluation of mastering of each topic from all disciplines of the curriculum for the current educational activity, the student is given grades on a 4-point (traditional scale) taking into account the approved evaluation criteria for the discipline. All types of work provided by the curriculum are taken into account. The student must receive a grade in each topic. The teacher conducts a survey of each student in the group at each lesson and assigns a grade in the journal of attendance and student performance according to the traditional scale ("5", "4", "3", "2").

When evaluating the student's current educational activity, 20% of the grade is the student's independent work, which takes into account the knowledge of the topic of independent study and the performance of work in the notebook.

The final (summary) control is carried out :

- in the form of a written test, which includes test tasks, theoretical questions
- control of practical skills (solving clinical cases, defense of medical history, assessment of the correctness of practical skills - practical-oriented exam.

According to the specifics of professional training, preference is given to test and practically oriented control.

7. The form of the final control of study success .

The final control of the discipline is carried out on the basis of theoretical control knowledge, practical skills and abilities.

Assessment is a form of final control, which consists in assessing the student's learning of the learning material based solely on the results of his performance of certain types of work in practical, seminar or laboratory classes. Semester assessment of subjects is carried out after the end of its study, before the beginning of the examination session.

An exam (differential assessment) is a form of final control of a student's assimilation of theoretical and practical material from an educational discipline.

8. Scheme of accrual and distribution of points received by students.

The maximum number of points for a discipline is 200 points. The ratio between the results of the evaluation of the current educational activity and the final control of knowledge is 60% and 40%.

The first and second semesters of studying the discipline end with a credit.

The maximum number of points that a student can score for the current educational activity while studying the discipline is 200 points, *the minimum number of points* - the minimum number of points - is 120 points.

The calculation of the number of points is carried out on the basis of the grades received by the student on a 4-point (national) scale during the study of the discipline, by calculating the arithmetic mean, rounded to two decimal places.

The student receives a credit in the last lesson of the discipline based on the results of the current assessment.

Only those students who do not have academic debt and whose average score for the current academic activity in the academic discipline is at least 3.00 are admitted to the credit.

The average grade for the current activity is converted into points on a 200-point scale, according to the conversion table (Table 1).

Table 1.

Recalculation of the average grade for the current activity into a multi-point scale (for disciplines ending with credit)

| 4-point scale | 200-point scale | 4-point scale | 200-point scale | 4-point scale | 200-point scale | 4-point scale | 200-point scale |
|---------------|-----------------|---------------|-----------------|---------------|-----------------|---------------|-----------------|
| 5 | 200 | 4.47 | 179 | 3.94 | 158 | 3.42 | 137 |
| 4.97 | 199 | 4.44 | 178 | 3.92 | 157 | 3.39 | 136 |
| 4.94 | 198 | 4.42 | 177 | 3.89 | 156 | 3.37 | 135 |
| 4.92 | 197 | 4.39 | 176 | 3.87 | 155 | 3.34 | 134 |
| 4.89 | 196 | 4.37 | 175 | 3.84 | 154 | 3.32 | 133 |
| 4.87 | 195 | 4.34 | 174 | 3.82 | 153 | 3.29 | 132 |

| | | | | | | | |
|------|-----|------|-----|------|-----|------|-----------------------|
| 4.84 | 194 | 4.32 | 173 | 3.79 | 152 | 3.27 | 131 |
| 4.82 | 193 | 4.29 | 172 | 3.77 | 151 | 3.24 | 130 |
| 4.79 | 192 | 4.27 | 171 | 3.74 | 150 | 3.22 | 129 |
| 4.77 | 191 | 4.24 | 170 | 3.72 | 149 | 3.19 | 128 |
| 4.74 | 190 | 4.22 | 169 | 3.69 | 148 | 3.17 | 127 |
| 4.72 | 189 | 4.19 | 168 | 3.67 | 147 | 3.14 | 126 |
| 4.69 | 188 | 4.17 | 167 | 3.64 | 146 | 3.12 | 125 |
| 4.67 | 187 | 4.14 | 166 | 3.62 | 145 | 3.09 | 124 |
| 4.64 | 186 | 4.12 | 165 | 3.59 | 144 | 3.07 | 123 |
| 4.62 | 185 | 4.09 | 164 | 3.57 | 143 | 3.04 | 122 |
| 4.59 | 184 | 4.07 | 163 | 3.54 | 142 | 3.02 | 121 |
| 4.57 | 183 | 4.04 | 162 | 3.52 | 141 | 3 | 120 |
| 4.54 | 182 | 4.02 | 161 | 3.49 | 140 | < 3 | 70-119 (refolding) |
| 4.52 | 181 | 4.00 | 160 | 3.47 | 139 | | |
| 4.49 | 180 | 3.97 | 159 | 3.44 | 138 | | |

The learning result is also evaluated on a two-point scale (passed/failed).

Table 2

The scale of transferring points to the national system

| According to the national system | On a 200-point scale |
|----------------------------------|------------------------|
| counted | from 120 to 200 points |
| not counted | less than 119 points |

Students' independent work, which is provided for by the topic of the lesson along with classroom work, is evaluated during the current control of the topic in the corresponding lesson.

The second semester (the last semester of studying the discipline) ends with a final control in the form of an exam.

Only those students who do not have academic debt (all missed classes have been completed) and whose average score for the current educational activity in the academic discipline is at least "3" are admitted to the exam.

The maximum number of points that a student can score for the current educational activity for admission to the exam is 120 points and is defined as the sum of the arithmetic average of all grades received in the semester.

The minimum number of points that a student must score for the current educational activity for admission to the exam is 72 points. Recalculation of the average grade for the current academic performance (on a 120-point scale) in the table. 3.

Table 3.

Recalculation of the average grade for the current academic performance in a multi-point scale for disciplines ending with an exam

| 4-point scale | 200-point scale | 4-point scale | 200-point scale | 4-point scale | 200-point scale |
|---------------|-----------------|---------------|-----------------|---------------|-----------------|
| 5 | 120 | 4.29 | 103 | 3.58 | 86 |
| 4.96 | 119 | 4.25 | 102 | 3.54 | 85 |
| 4.92 | 118 | 4.21 | 101 | 3.50 | 84 |
| 4.87 | 117 | 4.17 | 100 | 3.46 | 83 |
| 4.83 | 116 | 4.12 | 99 | 3.42 | 82 |
| 4.79 | 115 | 4.08 | 98 | 3.37 | 81 |
| 4.75 | 114 | 4.04 | 97 | 3.33 | 80 |
| 4.71 | 113 | 4.00 | 96 | 3.29 | 79 |

| | | | | | |
|------|-----|------|----|-------------|------------|
| 4.67 | 112 | 3.96 | 95 | 3.25 | 78 |
| 4.62 | 111 | 3.92 | 94 | 3.21 | 77 |
| 4.58 | 110 | 3.87 | 93 | 3.17 | 76 |
| 4.54 | 109 | 3.83 | 92 | 3.12 | 75 |
| 4.50 | 108 | 3.79 | 91 | 3.08 | 74 |
| 4.46 | 107 | 3.75 | 90 | 3.04 | 73 |
| 4.42 | 106 | 3.71 | 89 | 3 | 72 |
| 4.37 | 105 | 3.67 | 88 | Less than 3 | Not enough |
| 4.33 | 104 | 3.62 | 87 | | |

The maximum number of points that a student can score when taking the exam is 80 (minimum number - not less than 50) .

Discipline assessment is defined comprehensively as the sum of points for the current educational activity and points for the exam .

From the allocated 120 points for the current educational activity, 4 to 12 additional points are allocated for the assessment of individual independent work of higher education applicants, according to the work curriculum. Encouragement points are added to the final grade for the discipline at the end of its study.

Points with disciplines for students, which successfully completed the program are converted into the national scale and ECTS system (tables 4 , 5) .

Table 4

| Discipline points | Evaluation on a 4-point scale |
|---|--------------------------------------|
| From 180 to 200 points | 5 |
| From 150 to 179 points | 4 |
| From 149 points to the minimum number of points that the student must score | 3 |
| Below the minimum number of points that the student must score | 2 |

Table 5

Scale assessment : national and ECTS

| Total pointsfor all specieseducational activity | Rating ECTS | Rating by national scale | |
|---|-------------|---|---|
| | | for exam , difzalik | for offset |
| 180-200 | A | perfectly | counted |
| 160-179 | B | okay | |
| 150-159 | C | | |
| 130-149 | D | satisfactorily | |
| 120-129 | E | | |
| 50-119 | FX | unsatisfactorily with with vehemence re assembly | not counted with possibility rearrangement |
| 0 -49 | F | unsatisfactorily with mandatoryrepeated study disciplines | not counted with mandatory repeated study disciplines |

9. Methodological support

1. Working curriculum of the discipline;
2. Plans of lectures, practical classes and independent work of students;
3. Abstracts of lectures on the discipline;
4. Methodical instructions for practical classes for students;
5. Methodical materials that ensure independent work of students;
6. Test and control tasks for practical classes;
7. List of questions for the exam .

Theoretically questions

Chapter 1 / course 4 . Abdominal surgery .

1. Anatomy - functional information about the cecum and appendix .
2. Methods of examination of patients with acute appendicitis.
3. Acute appendicitis clinic.
4. Etiology and pathogenesis of acute appendicitis.
5. Differential diagnosis of acute appendicitis.
6. Features of the clinical course of acute appendicitis in children.
7. Features of the clinical course of acute appendicitis in pregnant women.
8. Features of the clinical course of acute appendicitis in senile and elderly patients.
9. Complications of acute appendicitis.
10. Appendicular infiltrate (clinic, diagnosis, treatment tactics).
11. Appendicular abscess of the right iliac region (clinic, diagnosis, treatment tactics).
12. Pelvic abscess. Clinic, diagnosis, treatment tactics.
13. Subphrenic abscess. Clinic, diagnosis, treatment tactics.
14. Pylephlebitis. Clinic, diagnosis, treatment tactics.
15. Spilled appendicular peritonitis. Clinic, diagnosis, treatment tactics.
16. Technique of typical appendectomy.
17. Laparoscopic appendectomy .
18. Peculiarities of operative technique depending on the form of acute appendicitis and placement of the appendix.
19. Type of access and volume of surgical intervention in various complications of acute appendicitis.
20. Complications during appendectomy.
21. Complications of appendectomy in the early and late postoperative period.
22. Management of the postoperative period in patients with appendicitis and its complications.
23. Anatomical and functional information about the gall bladder and extrahepatic bile ducts.
24. Etiology and pathogenesis of acute cholecystitis.
25. Classification of acute cholecystitis.
26. Methods of examination of patients with acute cholecystitis.
27. Typical clinical picture of acute cholecystitis, its features among young and elderly people.
28. Differential diagnosis of acute cholecystitis.
29. Diagnostic program for acute cholecystitis.
30. Treatment program for acute cholecystitis.
31. Complications of acute cholecystitis.

32. Features clinical paintings sharp cholecystitis if available accompanying pathologies .
33. Clinical picture of complications of acute cholecystitis and their differential diagnosis.
34. Indications for emergency operations in acute cholecystitis.
35. Indications for urgent operations (24-48 hours) in case of acute cholecystitis.
36. Nature of operative interventions in acute cholecystitis.
37. The nature of surgical interventions for complications of acute cholecystitis.
38. Indications for minimally invasive surgical interventions (endoscopic, laparoscopic, under the control of CT and ultrasound).
39. Intraoperative complications of cholecystectomy and their treatment.
40. Postoperative complications and their prevention and treatment.
41. Preoperative preparation of patients with acute cholecystitis.
42. Postoperative management of patients with acute cholecystitis.
43. Anatomical and functional information about the pancreas.
44. Etiology and pathogenesis of acute pancreatitis.
45. Classification of acute pancreatitis.
46. Methods of examination of patients with acute pancreatitis.
47. Typical clinical picture of acute pancreatitis.
48. Differential diagnosis of acute pancreatitis.
49. Diagnostic program for acute pancreatitis.
50. Treatment tactics for acute pancreatitis.
51. Complications of acute pancreatitis.
52. Features clinical paintings sharp pancreatitis at available accompanying pathologies .
53. Clinical picture of complications of acute pancreatitis and their differential diagnosis.
54. Indications for surgical interventions in acute pancreatitis.
55. Nature of surgical interventions in acute pancreatitis.
56. The nature of surgical interventions for complications of acute pancreatitis.
57. Evidence to minimally invasive operational interventions (endoscopic , laparoscopic, under ultrasound control) in acute pancreatitis.
58. Treatment of patients with acute pancreatitis in the postoperative period.
59. Anatomical and functional information about the stomach and duodenum.
60. Modern definition and methods of diagnosis of peptic ulcer disease of the stomach and duodenum.
61. Which exist factors aggression in development ulcerative disease ?
62. What refers to factors protection mucous shells stomach ?
63. Which are anatomical zones has stomach ?
64. On account whose arteries blood supply stomach ?
65. What effect does the vagus nerve have on the stomach?
66. What is the effect on the stomach has sympathetic innervation ?
67. What complications ulcerative diseases stomach and duodenum ?
68. What are the features pain syndrome in gastric localization ulcers ?
69. What are the features pain syndrome in duodenal localization ulcers ?
70. What are the objective clinical signs found in ulcer the disease stomach and duodenum ?
71. What is the essence of diagnostic programs for ulcers the disease stomach and duodenum ?
72. What diseases should it be treated with? conduct differential diagnosis ulcerative diseases stomach and duodenum ?
73. Methods of examination of patients with a perforated ulcer.
74. Classification of perforated ulcer.
75. Etiology and pathogenesis of perforating ulcer.
76. Clinic of a typical perforated ulcer.

77. Differential diagnosis of a perforated ulcer.
78. Peculiarities of the clinical course of an atypical perforated ulcer.
79. Peculiarities of the clinical course of a covered perforating ulcer.
80. Peculiarities of the clinical course of a perforating ulcer with perforation in the omentum bag.
81. Peculiarities of the course of a perforating ulcer when it breaks through into the retroperitoneal space.
82. Selection of the volume of surgical intervention for a perforated ulcer.
83. Technique of suturing a perforated ulcer.
84. Pyloroduodenoplasty technique.
85. Choosing a method of performing vagotomy and pyloroduodenoplasty.
86. Indications for carrying out and technique of selective vagotomy and antrumectomy.
87. Indications and technique for performing selective proximal vagotomy and pyloroduodenoplasty.
88. Indications and technique for gastric resection in case of perforated ulcer.
89. Laparoscopic technologies in the surgical treatment of a perforated ulcer.
90. Complications in the early postoperative period during surgical interventions for a perforated ulcer.
91. Complications later postoperative period during execution operational interventions for a perforated ulcer.
92. Treatment of complications in the late postoperative period during surgical interventions for a perforated ulcer.
93. Peculiarities of management of patients with a perforated ulcer in the early and late postoperative period.
94. Complications in the late postoperative period during surgical interventions for a perforated ulcer.
95. What complaints are observed in patients with an obstruction at the level of the gastric outlet?
96. What complaints are observed in patients with an obstruction at the level of the distal part of the

duodenum?

97. Define pyloroduodenal stenosis.
98. What are the reasons for development pyloroduodenal stenosis?
99. What classification pyloroduodenal stenosis?
100. Which ones complaints are observed with subcompensated stenosis ?
101. Which ones complaints are observed when compensated stenosis ?
102. Which ones complaints are observed with decompensated stenosis ?
103. Which ones objective clinical signs subcompensated and decompensated pyloroduodenalstenosis?
104. X-ray signs of the degree of pyloroduodenal stenosis.
105. Which ones principles treatment pyloroduodenal stenosis?
106. What are the indications for surgery treatment ulcerative diseases stomach and duodenum ?
107. What methods of operations trace give attention during localization ulcers in the duodenumintestines ?
108. What methods of operations trace give attention during localization stomach ulcers ? _
109. Determination of peptic ulcer anastomosis.
110. What are the causes of occurrence peptic anastomosis ulcers ?
111. Which ones complaints patients with peptic ulcer Anastomotic ulcers ?
112. Which are objective clinical signs you can detect in peptic Anastomotic ulcers ?
113. What is the essence of diagnostic programs for peptic Anastomotic ulcers ?
114. Z which ones diseases trace diagnose peptic Anastomotic ulcer ?
115. What medicine treatment used for peptic Anastomotic ulcers ?
116. What amount surgical intervention in peptic Anastomotic ulcers ?

117. Define Mallory-Weiss syndrome.
118. Which ones complaints from patients with Mallory-Weiss syndrome ?
119. Which ones objective manifestations of Mallory-Weiss syndrome ?
120. Which ones methods research are used for clarification diagnosis of Mallory-Weiss syndrome ?
121. With which diseases trace conduct differential diagnosis of Mallory-Weiss syndrome ?
122. Treatment tactics for Mallory-Weiss syndrome.
123. Which ones indications for surgery treatment of Mallory-Weiss syndrome ?
124. Etiology and pathogenesis of gastrointestinal bleeding.
125. Methods of examination of patients with gastrointestinal bleeding.
126. Classification of ulcer bleeding.
127. Clinic of gastrointestinal bleeding.
128. Differential diagnosis of ulcer bleeding.
129. Features I will run ulcerative gastroduodenal bleeding depending on from degree her activity _
130. Features of the clinical course of active bleeding.
131. Features of the clinical course of ulcer bleeding that has stopped.
132. The technique of suturing a bleeding ulcer.
133. The choice of a method of stopping bleeding depending on the degree of its activity.
134. Indications for conservative treatment of ulcer bleeding.
135. Therapy of gastrointestinal bleeding.
136. Methods of endoscopic hemostasis and indications for their use.
137. Methods of operative interventions for ulcer bleeding.
138. The choice of the method of surgical intervention depending on the condition of the patient,intensity of bleeding, degree of blood loss, localization of the ulcer.
139. Peculiarities of the technique of operative interventions for ulcer bleeding.
140. Complications in the early postoperative period during surgical interventions for ulcer bleeding.
141. Treatment of complications in the early postoperative period during surgical interventions for ulcer bleeding.
142. Peculiarities of management of patients with ulcer bleeding in the early and late postoperative period.
143. Anatomical and physiological information about the small and large intestine.
144. Definition of the concept of intestinal obstruction.
145. Etiology of intestinal obstruction.
146. Modern issues of the pathogenesis of intestinal obstruction.
147. Classification of intestinal obstruction.
148. Causes of dynamic bowel obstruction.
149. Clinic of dynamic bowel obstruction.
150. Treatment of dynamic (functional) bowel obstruction.
151. Types of mechanical intestinal obstruction.
152. Clinic of intestinal obstruction.
153. Features of the clinic of intestinal strangulation obstruction.
154. Clinical features of volvulus of individual organs of the digestive tract.
155. Features of the intussusception clinic.
156. Types of intussusception.
157. Peculiarities of treatment tactics depending on the time of onset of the disease.
158. Glucose disease.
159. Etiology of sebaceous disease.
160. Modern aspects of the pathogenesis of sebaceous disease.
161. Typical clinical picture of sebaceous disease.
162. Differential diagnosis of intestinal obstruction.

163. Differential diagnosis of certain types of intestinal obstruction.
164. Modern methods of diagnosing acute intestinal obstruction.
165. X-ray signs of acute intestinal obstruction.
166. Ultrasonographic signs of acute intestinal obstruction.
167. Modern treatment program for intestinal obstruction.
168. Preoperative preparation patients with sharp intestinal impassability _
169. Selection of the nature of surgical intervention for different types and levels of intestinal obstruction.
170. Postoperative treatment program.
171. Prevention and prognosis in patients with acute intestinal obstruction.
172. Anatomical and functional data about parietal and visceral peritoneum _
173. Etiology and pathogenesis of acute peritonitis.
174. Classification of acute peritonitis.
175. Methods of examination of patients with acute peritonitis.
176. Clinical picture of local acute peritonitis.
177. Clinical picture of widespread peritonitis.
178. Differential diagnosis of acute peritonitis.
179. Diagnostic program for a patient with acute peritonitis.
180. Treatment tactics in a patient with acute local peritonitis.
181. Treatment tactics in a patient with acute widespread peritonitis.
182. Complication of acute peritonitis.
183. Peculiarities of the clinical picture of acute peritonitis with accompanying pathology.
184. Treatment tactics for acute peritonitis.
185. Peculiarities of preoperative preparation for acute peritonitis.
186. Methods operational interventions with peritonitis depending on from the spread of the inflammatory process in the abdominal cavity.
187. Indications for miniinvasive methods of treatment of patients with acute peritonitis.
188. Stages of surgical intervention in acute widespread peritonitis.
189. Postoperative complications in acute peritonitis, their diagnosis, prevention and treatment.
190. Management of patients in the postoperative period.
191. Abdominal compartment syndrome. Definition, causes of occurrence. Diagnostics and treatment tactics.
192. Relaparotomy and laparostomy in the treatment of widespread peritonitis.
193. Definition of the concept of hernia.
194. Causes of hernia.
195. General symptoms of hernias.
196. Significance of the shape and size of the hernia for the course of the disease.
197. Classification of external hernias of the abdominal wall.
198. Complication of hernias. Definition, diagnosis and treatment.
199. Hernias white line stomach clinic , classification , diagnosis , differential diagnosis , treatment .
200. Umbilical hernias _ clinic , classification , diagnosis , differential diagnosis , treatment .
201. Oblique inguinal hernias. Clinic, classification, diagnosis, differential diagnosis, treatment.
202. Direct inguinal hernias. Clinic, classification, diagnosis, differential diagnosis, treatment.
203. Postoperative hernias. Clinic, classification, diagnosis, differential diagnosis, treatment.
204. Femoral hernias _ clinic , classification , diagnosis , differential diagnosis , treatment .
205. Pinched hernias. A typical clinic. Clinical types of pinched hernias. Diagnosis, differential diagnosis.
206. Surgical tactics for a pinched hernia.
207. Peculiarities of surgical intervention for a pinched hernia.

208. Signs of viability and non-viability of the intestine.
209. Inflammation of the hernia. Clinic. Differential diagnosis. Surgical tactics.
210. Damage (trauma) of a hernia. Clinic. Surgical tactics.
211. Intestinal obstruction in hernia. Surgical tactics.
212. Irregular hernia. Clinic, diagnosis, differential diagnosis. Treatment.
213. Modern principles and methods of operative treatment of hernias.
214. Internal hernias. Clinic. Classification. Diagnostics.
215. Hernias esophagus opening diaphragms . Clinic . Diagnostics . Differential diagnosis.
216. What are the causes of development hernias esophagus opening diaphragm ?
217. What mechanism development hernias esophagus opening diaphragm ?
218. Which ones exist species hernia esophagus opening diaphragm ?
219. Which ones complaints patients observed in hernia esophagus opening diaphragm ?
220. Which ones objective manifestations of hernia esophagus opening diaphragm ?
221. Which ones complication they can occur with a hernia esophagus opening diaphragm ?
222. Diagnostic program for hernia of the esophageal opening of the diaphragm.
223. With what diseases trace conduct differential diagnosis of hernia esophagus opening diaphragm?
224. In what consists of conservative treatment hernias esophagus opening diaphragm ?
225. Which ones indications for surgery treatment hernias esophagus opening diaphragm ?
226. The essence of operative interventions for hernia of the esophageal opening of the diaphragm.
227. Temporary incapacity and rehabilitation patients at hernias esophagus opening diaphragms .
228. Prevention and prognosis in patients with hernias of the esophageal opening of the diaphragm.
229. Nonspecific ulcerative colitis. Clinic, classification, diagnosis, differential diagnosis, treatment.
230. Illness Crown. clinic , classification , diagnosis , differential diagnosis , treatment .
231. Etiology, pathogenesis, classification of diverticular disease of the colon.
232. Clinic, research methods, differential diagnosis of diverticular disease of the colon.
233. Complications of diverticular disease of the colon. Conservative and operative treatment.
234. Classification, diagnosis and treatment of colon polyps and polyposis.
235. Transplantation of intestines. Classification of diseases requiring intestinal transplantation. Intestinal transplantation technique.
236. Mechanical jaundice. Causes of occurrence. Differential diagnosis. Treatment tactics.
237. Liver cysts. Classification. Diagnosis, treatment.
238. Cirrhosis and fibrosis of the liver. Portal hypertension syndrome. Classification. Complication. Diagnosis and treatment.
239. Liver transplantation. Indications and contraindications for liver transplantation. Methodology of donor selection. Methods of liver transplantation. Storage conditions of the donor liver and its transportation.
240. Etiology, pathogenesis and classification of chronic pancreatitis.
241. Clinical course and methods of diagnosis of chronic pancreatitis.
242. Differential diagnosis of chronic pancreatitis.
243. Conservative and surgical treatment of chronic pancreatitis.
244. Complication of chronic pancreatitis. Clinic . Diagnostics . Differential diagnosis. Treatment.
245. Cysts and fistulas of the pancreas. Classification. Clinic. Diagnostics.
246. Complications of pancreatic cysts (suppuration, perforation, bleeding, malignancy). Principles of surgical tactics.
247. Indications for pancreas transplantation and their rationale. Technique of pancreas transplantation.
248. Disease of the spleen. Diagnostics and treatment tactics.
249. Surgical tactics in complicated forms of infectious and parasitic diseases of the small intestine.

250. Acute and chronic hemorrhoids (etiology, pathogenesis, classification, clinic, research methods, differential diagnosis, conservative and operative treatment, types of operations).
251. Acute and chronic paraproctitis (etiology, pathogenesis, classification, clinic, research methods, differential diagnosis, treatment).
252. Anal fissure. Etiology, pathogenesis, classification. Diagnosis and treatment.
253. Epithelial coccygeal duct. Diagnosis and treatment.
254. Diseases of the soft tissues of the perineum (prolapse syndrome, pyoderma, perianal dermatitis, condylomatosis). Diagnosis and treatment.
255. Teratomas pararectal localization . Classification . Diagnostics and treatment .

Section 2 / course 5 . Thoracic, the heart and blood vessels , endocrinal surgery .

1. Classification traumatic damage chest cages _
2. Classification and diagnosis of post-traumatic hemothorax.
3. Treatment tactics for closed traumatic chest injuries complicated by small, medium and large hemothorax.
4. Signs of intrapleural bleeding. Indications for thoracotomy.
5. Treatment tactics for collapsed hemothorax.
6. Diagnosis and treatment of a penetrating wound of the heart.
7. Classification of post-traumatic pneumothorax.
8. Causes of subcutaneous emphysema. Methods of treatment.
9. Causes and clinical course of mediastinal emphysema.
10. Treatment of mediastinal emphysema.
11. Treatment of post-traumatic pneumothorax . Types of aspiration systems.
12. Treatment of open pneumothorax.
13. Treatment tactics for tense (valvular) pneumothorax.
14. Types of novocaine blockade in closed chest trauma.
15. Methods of fixation of the chest wall with a floating rib fracture.
16. Treatment tactics for a floating rib fracture.
17. Double rib fracture clinic.
18. Treatment tactics for limited pneumothorax.
19. Early complications of closed chest trauma.
20. Late complications of a closed chest injury.
21. Clinical and radiological signs of a small hemothorax.
22. Causes of acute lung abscess.
23. Clinical forms of lung gangrene.
24. Clinical symptoms of an acute lung abscess in the "before opening" stage.
25. Clinical symptoms of an acute lung abscess in the "after opening" stage.
26. Clinic of chronic lung abscess.
27. Additional methods of examination of patients with purulent lung diseases.
28. Differential diagnosis of chronic lung abscess and cancer with decay.
29. Differential diagnosis of air cyst and chronic lung abscess.
30. Methods of rehabilitation of the tracheobronchial tree.
31. Treatment of gangrenous lung abscess.
32. Treatment of acute lung abscess. Indications for operative treatment.
33. Tactics of treatment of complicated acute lung abscess.
34. Acute pleural empyema. Etiology, pathogenesis, clinic.
35. Clinical manifestations of limited pleural empyema. X-ray picture.
36. Clinic of limited pyopneumothorax. X-ray signs.

37. Total pyopneumothorax. Etiology, clinical course.
38. Additional examination methods for chronic purulent processes in the pleura.
39. Differential diagnosis of pleural empyema and pyopneumothorax.
40. Clinic of chronic empyema.
41. Additional examination methods for pyopneumothorax.
42. Tactics of treatment of patients with pyopneumothorax.
43. Indications for pleural puncture.
44. Technique of pleural cavity puncture.
45. Indications for pleural cavity drainage.
46. Pleural cavity drainage technique.
47. Features of conservative treatment of pyopneumothorax.
48. Stages of mitral stenosis.
49. Clinical manifestations of the I-II stage of mitral stenosis.
50. Complications of mitral stenosis.
51. Auxiliary examination methods for mitral stenosis.
52. Surgical treatment of mitral stenosis.
53. Mitral insufficiency. Etiology. Classification.
54. Clinic, diagnosis, treatment of mitral insufficiency.
55. Aortic stenosis. Clinic, diagnosis, treatment.
56. Pathogenesis and complications of complete atrioventricular block.
57. Complete atrioventricular block. Clinic. Diagnostics.
58. Sinus node weakness syndrome. Indications for surgical treatment.
59. Types and indications for temporary electrocardiostimulation.
60. Indications for permanent electrocardiostimulation.
61. Ischemic heart disease. Clinic, diagnostics, surgical treatment.
62. Heart defects. Clinic, diagnostics, surgical treatment.
63. Surgical aspects of the anatomy of the anterior mediastinum.
64. Clinic of tumors of the anterior mediastinum.
65. Treatment of acute mediastinitis.
66. Etiology, pathogenesis, clinical course of superior vena cava syndrome.
67. Diagnosis of superior vena cava syndrome.
68. Surgical approaches during operations on mediastinal organs.
69. Tactics of treatment of patients with iatrogenic damage to the esophagus.
70. Treatment of iatrogenic perforation of the lower thoracic esophagus.
71. Surgical treatment of tumors of the posterior mediastinum.
72. Classification of hernia of the esophageal opening of the diaphragm.
73. Clinical course of a sliding hernia of the esophageal opening of the diaphragm.
74. X-ray signs of a sliding hernia of the esophageal opening of the diaphragm.
75. Treatment of a sliding hernia of the esophageal opening of the diaphragm.
76. Treatment of paraesophageal hernia of the esophageal opening of the diaphragm.
77. Clinical manifestations of relaxation of the diaphragm.
78. Diagnosis of relaxation of the diaphragm.
79. Treatment of total relaxation of the diaphragm.
80. Anatomical and physiological narrowing of the esophagus
81. Clinical stages of esophageal achalasia.
82. Achalasia of the esophagus. Clinic, diagnosis.
83. Data of an objective examination in achalasia of the esophagus.
84. Differential diagnosis of esophageal achalasia and esophageal cancer.
85. Treatment of achalasia stages I-II.

86. Classification of esophageal diverticulum.
87. Complications of esophageal diverticulum. Treatment tactics.
88. Conservative and operative treatment of esophageal achalasia.
89. Complications of a bifurcation diverticulum of the esophagus. Clinical course.
90. Surgical approaches for esophageal diverticulum.
91. Surgical treatment of Zenker's diverticulum. Intraoperative and postoperative complications.
92. Clinical stages of esophageal burns.
93. Emergency aid for burns of the esophagus.
94. Conservative treatment of esophageal burns.
95. Surgical approaches during operations on the esophagus.
96. Types of plastics in cicatricial strictures of the esophagus.
97. Surgical treatment of cicatricial strictures of the esophagus
98. Epiphrenal diverticulum clinic. Additional examination methods.
99. Causes of embolism and acute thrombosis of main arteries.
100. Clinical characteristics of embolism and acute thrombosis of main arteries.
101. Classification of acute ischemia of the lower extremities according to V.S. Saveliev.
102. Differential diagnosis embolism and sharp thrombosis main lines arteries _
103. Surgical tactics and methods of operative treatment of embolism and acute thrombosis of main arteries.
104. Peculiarities of management of the postoperative period after surgical intervention for embolism and acute thrombosis of main arteries.
105. Indications for conservative treatment, drugs used.
106. Anticoagulants, fibrinolytic thrombolytic drugs.
107. Methods of control over the settling system, their characteristics.
108. Etiology, pathogenesis of obliterating atherosclerosis and endarteritis of the lower extremities.
109. Classification of chronic ischemia and the level of occlusion of main arteries in obliterating atherosclerosis according to O.O. Shalimov
110. Modern theory and risk factors for the development of atherosclerosis.
111. Methods of examining the arterial system.
112. Complications of obliterating atherosclerosis of the arteries of the lower extremities and methods of their prevention.
113. Definition, clinical characteristics and methods of surgical treatment of Lerich syndrome.
114. Indications and contraindications for surgery treatment obliterating atherosclerosis of main arteries of the lower extremities.
115. Indications and contraindications for surgical treatment of obliterating endarteritis of the lower extremities.
116. Early postoperative complications of reconstructive operations on the main arteries of the lower extremities in obliterating atherosclerosis and methods of their prevention.
117. Indications and contraindications for conservative treatment of obliterating diseases of the arteries of the lower extremities.
118. Rehabilitation of patients who underwent reconstructive operations on the aorta and main arteries.
119. Modern methods of aortoarteriography, complications of aortography and methods of their prevention.
120. Methods of lowering the cholesterol concentration of lipoproteins in blood plasma (pharmacological, instrumental).
121. Factors ensuring normal venous hemodynamics.
122. Etiology of varicose veins.
123. Pathogenesis of violation of venous hemodynamics in varicose disease.

124. Clinical characteristics of varicose disease of the lower extremities,
125. Clinical characteristics of chronic venous insufficiency of the 1st century.
126. Clinical characteristics of chronic venous insufficiency of the II century.
127. Clinical characteristics of chronic venous insufficiency III century.
128. Complications of varicose veins.
129. Functional tests to determine the condition of the valves of the superficial, communicating and deep veins of the lower extremities.
130. Methods and indications for phlebography.
131. Differential diagnosis of a varicose node of the inguinal area and a femoral hernia.
132. Differential diagnosis of varicose veins and congenital dysplasia of veins.
133. Conservative treatment of varicose veins of the lower extremities.
134. Treatment of eczema and dermatitis caused by chronic venous insufficiency.
135. Treatment of trophic ulcer caused by chronic venous insufficiency.
136. Indications and contraindications for surgical treatment of varicose veins of the lower extremities.
137. Sequence of saphenectomy operation.
138. Causes of recurrence of varicose veins of the lower extremities after saphenectomy.
139. Treatment of recurrence of varicose veins of the lower extremities after saphenectomy.
140. Prevention of varicose veins of the lower extremities.
141. Etiology of thrombophlebitis of the subcutaneous veins of the lower extremities.
142. Causes of thrombophlebitis of undilated subcutaneous veins.
143. Pathogenesis and clinic of migrating thrombophlebitis of subcutaneous veins.
144. Clinical manifestations of acute thrombophlebitis of the lower subcutaneous veins
145. Differential diagnosis of thrombophlebitis of the subcutaneous and deep veins of the lower extremities.
146. Differential diagnosis of thrombophlebitis of the subcutaneous veins of the lower extremities and hysteria.
147. Differential diagnosis of thrombophlebitis of the subcutaneous veins of the lower extremities and lymphangitis.
148. Treatment of post-injection thrombophlebitis of the subcutaneous veins of the upper extremities.
149. Conservative treatment of thrombophlebitis of the subcutaneous veins of the lower extremities.
150. Indications and contraindications for surgical treatment of acute thrombophlebitis of the subcutaneous veins of the lower extremities.
151. Technique of operations for acute thrombophlebitis of the subcutaneous veins of the lower extremities.
152. Etiological and pathogenetic factors of deep vein thrombosis of the lower extremities.
153. Clinical manifestations of vein thrombosis of lower legs.
154. Clinical manifestations of iliofemoral thrombosis.
155. Clinical characteristics of white phlegmasia.
156. Clinical characteristics of blue phlegmasia.
157. Clinic of thrombosis of the inferior vena cava.
158. Acute thrombosis of hepatic veins - Budd-Chiari syndrome.
159. Etiology, clinical characteristics and treatment of Paget-Schroeter syndrome.
160. Differential diagnosis of deep vein thrombosis of the lower extremities and lymphostasis.
161. Differential diagnosis of white phlegmasia and femoral artery embolism.
162. Conservative treatment of deep vein thrombosis of the lower extremities.
163. Peculiarities of surgical treatment of iliofemoral thrombosis.
164. Ways to prevent PE during surgical treatment of iliofemoral thrombosis .

165. Prevention of deep vein thrombosis of the lower extremities in the early postoperative period.
166. Etiology, pathogenesis of postthrombophlebitic syndrome.
167. Peculiarities of venous hemodynamics in patients with PTFS.
168. Clinical characteristics of the sclerotic form of the postthrombophlebitic syndrome.
169. Clinical characteristics of the varicose form of the post-thrombophlebitic syndrome.
170. Clinical characteristics of the edematous and painful form of the post-thrombophlebitic syndrome.
171. Clinical characteristics of ulcer forms postthrombophlebitic syndrome.
172. Pathogenesis of trophic ulcers in patients with PTFS.
173. Peculiarities of clinical symptoms in patients with iliofemoral PTFS.
174. Differential diagnosis of PTFS and lymphostasis.
175. Differential diagnosis of PTFS and congenital angiodyplasia.
176. Conservative treatment of PTFS.
177. Peculiarities of operative treatment of PTFS of deep leg veins.
178. Operative treatment of patients with iliofemoral PTFS.
179. Etiology of lymphostasis.
180. Pathogenesis of lymphostasis.
181. Clinical characteristics of the stage of lymphedema.
182. Clinical characteristics of the fibroedema stage.

Practical skills

Chapter 1/course 4 . Abdominal surgery _

- 1) collect anamnesis and correctly assess the Volkovich-Kocher symptom;
- 2) conduct a physical examination of all organs and systems of the patient;
- 3) evaluate pulse and blood pressure indicators;
- 4) correctly assess the presence, localization and degree of tenderness and defense of the muscles of the anterior abdominal wall and lumbar region;
- 5) demonstrate Rovzing's symptom and evaluate its severity (negative, weakly positive, positive, strongly positive);
- 6) demonstrate Sitkovsky's symptom and evaluate its severity (negative, weakly positive, positive, strongly positive);
- 7) demonstrate Voskresensky's symptom and evaluate its severity (negative, weakly positive, positive, strongly positive);
- 8) demonstrate symptom Bartomier-Michelson and to evaluate his expressiveness (negative , weak positive , positive , sharp positive);
- 9) demonstrate symptom Shttkin-Blumberg et al to evaluate his expressiveness (negative , weak positive , positive , sharply positive);
- 10) demonstrate the Yaure-Rozanov symptom (retrocecal location of the process) and evaluate its severity (negative, weakly positive, positive, strongly positive);
- 11) demonstrate Cope 's symptom (retrocecal location of the process) and evaluate its severity (negative, weakly positive, positive, strongly positive);
- 12) assist in performing appendectomy and perform individual stages of surgical intervention;
- 13) draw up an individual program of postoperative management of a patient with acute appendicitis;
- 14) make dressings;
- 15) take care of the drains, wash the drains and inject drugs into them;
- 16) remove drains from the abdominal cavity;
- 17) remove stitches;
- 18) wash the stomach;

- 19) do a cleansing enema;
- 20) to administer medications, to install an intravenous catheter;
- 21) stop bleeding from a postoperative wound in the superficial layers of the abdominal wall;
- 22) insert a catheter into the urinary bladder in men and women;
- 23) draw up a medical history;
- 24) draw up a sick letter;
- 25) issue a prescription for medicine;
- 26) correctly assess the character, severity of the pain irradiation indicators of pulse and blood pressure, body temperature in a patient with acute cholecystitis;
- 27) detect and evaluate jaundice, skin pigmentation from the use of heating pads, dilatation of the veins of the anterior abdominal wall ("medusa head");
- 28) detect and evaluate the protective tension of the muscles in the area of the right hypochondrium, an enlarged painful gall bladder or infiltrate, the presence of fluid in the abdominal cavity;
- 29) demonstrate the presence of symptoms and their degree of expression (negative, weakly positive, positive, sharply positive): Zakharyina, Kera, Courvoisier, Murphy, Obraztsova, Ortner, Musi-Georgievsky, Botkin (cholecystic-cardiac), Shttkin-Blumberg;
- 30) assist in cholecystectomy operations and perform separate stages of surgical intervention (including minimally invasive and laparoscopic);
- 31) assist with catheterization of central veins;
- 32) manage the patient in the postoperative period: assess the general condition of the patient, make dressings, take care of the drains, inject drugs through the drains into the abdominal cavity and bile ducts, remove the drains from the abdominal cavity and bile ducts, remove sutures, assist in surgical treatment wounds during its purulent complication;
- 33) draw up a medical history, write a preoperative epicrisis and a protocol of an operation in a patient with cholecystitis;
- 34) draw up a sick letter;
- 35) issue a prescription for medicinal products;
- 36) provide correct recommendations in the postoperative period (diet, work activity);
- 37) collect anamnesis, conduct an examination, palpation, percussion, auscultation in a patient with acute pancreatitis;
- 38) select the most characteristic signs of acute pancreatitis from the anamnesis data;
- 39) correctly evaluate the data of a physical examination in a patient with acute pancreatitis;
- 40) identify and correctly evaluate degree severity (negative, weakly positive, positive, sharp positive) of the following symptoms: Kerte, Mayo-Robson, Shttkin-Blumberg, Johnson - Kullen - Grunwald, Mondora;
- 41) draw up a medical history, write a preoperative epicrisis and a protocol of the operation;
- 42) issue a discharge and a sick letter;
- 43) write a prescription for medicinal products;
- 44) perform general medical manipulations (change of dressings, care of drains in the abdominal cavity, washing of drains and introduction of drugs into them, removal of drains, removal of sutures, drainage and washing of the stomach, intravenous administration of drugs, installation of an intravenous catheter);
- 45) providing correct recommendations for life in the postoperative period (nutrition regime, peculiarities of labor activity);
- 46) carry out clinical diagnostic tests on a patient with ulcer bleeding: collect anamnesis, perform an examination of the patient, palpation, percussion, auscultation, rectal examination;
- 47) prepare the patient for surgery;
- 48) carry out curation of the patient with the writing of the medical history;
- 49) be able to perform the following manipulations: intravenous injections, decompression of the

- stomach, dressings, care of drainage of the abdominal cavity, a probe for decompression of the stomach;
- 50) identify the syndrome and evaluate its severity (Schotkin-Blumberg, Vala, Kivulya, Mathieu-Sklyarova, Schlange, Vils, Chuguev, Shimon-Dans, Zege-von Manteifel, Golda);
 - 51) method of performing enterography;
 - 52) perform gastric lavage and assess the amount and nature of contents;
 - 53) perform a siphon enema and evaluate its diagnostic and therapeutic significance;
 - 54) collect anamnesis, conduct an examination, palpation, percussion, auscultation in a patient with acute peritonitis;
 - 55) identify and correctly evaluate degree severity (negative , weakly positive , positive , sharp positive Shttkin-Blumberg symptom);
 - 56) draw up an individual diagnostic program for a specific patient with acute peritonitis;
 - 57) evaluate the results of laboratory and instrumental research methods;
 - 58) draw up an individual scheme of diagnostic studies, including anamnesis collection, examination and other methods;
 - 59) select from the anamnesis information that indicates the presence of subjective abdominal symptoms hernia (what indicate pain , unpleasant _ feeling in depth abdomen when rising intra-abdominal pressure , urination disorders , disorders of the gastrointestinal tract, etc.);
 - 60) check the presence of a symptom of a cough;
 - 61) conduct a finger examination of the inguinal canal to determine the state of the external and internal rings, the relationship of the hernia sac to the elements of the spermatic cord;
 - 62) to determine the size of the hernia gate in various hernias;
 - 63) determine the contents of the hernial sac by palpation and auscultation;
 - 64) assist in operations for diseases of the stomach and duodenum;
 - 65) independently bandage patients;
 - 66) examination of a surgical patient: features and method of collecting anamnesis;
 - 67) drawing up a plan for examination of a patient with surgical pathology;
 - 68) issuing a medical card inpatient , extract from medical cards inpatient , letter incapacity for work , letter from LTEK, sanatorium-resort card, emergency notification about an infectious disease, notification about a patient with a malignant tumor;
 - 69) patient examination technique: examination of lymph nodes (cervical, axillary, inguinal), peripheral arteries and veins;
 - 70) method of physical examination of mammary glands;
 - 71) method of physical examination of the thyroid gland;
 - 72) method of physical examination of the colon;
 - 73) method of physical examination of the stomach;
 - 74) method of physical examination of the liver, spleen;
 - 75) method of physical examination of a patient with a hernia;
 - 76) method of determining blood group affiliation;
 - 77) performance of tests for compatibility, rhesus compatibility, biological test;
 - 78) method of measuring central venous pressure (CVT);
 - 79) method of performing a siphon enema;
 - 80) preparation of patients for planned and urgent operations;
 - 81) conducting premedication;
 - 82) catheterization and suprapubic puncture of the bladder;
 - 83) methods of temporary stopping of external bleeding;
 - 84) methods of stopping venous bleeding;
 - 85) methods of restoring patency of the upper respiratory tract;
 - 86) methods of artificial lung ventilation (ventilation);
 - 87) indirect heart massage;

- 88) digital examination of the rectum;
- 89) the technique of rectoromanoscopy;
- 90) removal of sutures from an operative wound;
- 91) gastric lavage;
- 92) orientation in the purpose of surgical instruments: surgical needles (cutting, pricking, atraumatic), needle holders, hemostatic clamps (soft straight, curved pulmonary), wound expanders, abdominal mirrors, jejunum (straight and curved), scalpels, scissors, stapling devices , devices for applying gastrointestinal and interintestinal anastomoses;
- 93) puncture of the vein in the elbow bend and connection of the system for transfusion of blood substitutes;
- 94) laparocentesis technique;
- 95) assistance in emergency and planned operations.

Chapter 2/course 5 . Thoracic, cardiovascular, endocrine surgery .

Practical skills

- 1) conduct a physical examination of the organs and systems of a patient with surgical pathology of the chest and endocrine system;
- 2) evaluate pulse and blood pressure indicators in a patient with surgical pathology of the chest and endocrine system;
- 3) assist in execution operations thoracentesis , drainage pleural cavities ;
- 4) draw up an individual program of postoperative management of a patient with surgical pathology of the thoracic organs and the endocrine system;
- 5) make dressings in patients with surgical pathology of the chest organs and endocrine system;
- 6) know the technique of performing a pleural puncture, select tools for its performance;
- 7) prepare a passive drainage system for aspiration according to Bülow;
- 8) take care of pleural drains, wash the drains and inject drugs into them;
- 9) remove drains from the pleural cavity;
- 10) remove stitches from the chest wound;
- 11) to administer drugs, to install an intravenous catheter;
- 12) stop bleeding from a postoperative wound in the superficial layers of the chest wall;
- 13) insert a catheter into the urinary bladder in men and women;
- 14) draw up the medical history of a patient with surgical pathology of the thoracic organs and the endocrine system;
- 15) draw up a sick leave for a patient with surgical pathology of the chest and endocrine system;
- 16) write a prescription for medicine to a patient with surgical pathology of the chest and endocrine system;
- 17) assist with catheterization of central veins;
- 18) collect an anamnesis, conduct a physical examination of a patient suspected of pleural empyema, croup pneumonia, spontaneous pneumothorax;
- 19) microtracheostomy technique;
- 20) conducting and interpreting the Rouvière-Gregoir test;
- 21) draw up a medical history, write a preoperative epicrisis and a protocol of an operation in a patient with cardiovascular disease;
- 22) issue a discharge and sick leave for a patient with cardiovascular disease;
- 23) write a prescription for a medicine for a patient with cardiovascular disease;
- 24) perform general medical manipulations (change of bandages, care of drains, washing of drains and introduction of drugs into them, removal of drains, removal of sutures, drainage and washing of the stomach, intravenous administration of drugs, installation of an intravenous catheter);
- 25) preparing a patient with cardiovascular pathology for surgical intervention;

- 26) carry out curation of the patient with the writing of the medical history of the patient with cardiovascular pathology;
- 27) evaluate the results of laboratory and instrumental research methods in a patient with cardiovascular pathology;
- 28) drawing up an examination plan for a patient with surgical pathology of the vascular system;
- 29) issuing a medical card inpatient , extract from medical cards inpatient , letter incapacity for work , LTEK postal letter, sanatorium-resort card, emergency notification about infectious disease , information about a patient with malignant a tumor ;
- 30) method of examination of a patient with pathology of the arterial system;
- 31) method of physical examination of mammary glands;
- 32) method of physical examination of the thyroid gland;
- 33) method of physical examination of a patient with pathology of the venous and lymphatic system;
- 34) method of determining blood group affiliation;
- 35) performance of tests for compatibility, rhesus compatibility, biological test;
- 36) method of measuring central venous pressure (CVT);
- 37) preparation of patients for planned and urgent operations;
- 38) conducting premedication;
- 39) catheterization and suprapubic puncture of the bladder;
- 40) methods of temporary stopping of external bleeding;
- 41) methods of stopping venous bleeding;
- 42) methods of restoring patency of the upper respiratory tract;
- 43) methods of artificial lung ventilation (VLT);
- 44) indirect heart massage;
- 45) orientation in the purpose of surgical instruments: surgical needles (cutting, pricking, atraumatic), needle holders, hemostatic clamps (soft straight, curved pulmonary), wound dilators, abdominal mirrors, intestinal tubes (straight and curved), scalpels, scissors, staplers devices, Fogarty catheter, phleboextractor;
- 46) puncture of the vein in the elbow bend and connection of the system for transfusion of blood substitutes;
- 47) thoracentesis technique;
- 48) the technique of performing a puncture of the pericardial cavity;
- 49) venesection technique;
- 50) assistance in emergency and planned operations.

Recommended literature .

Basic :

1. General surgery: [textbook for students of higher education. institutions of the Ministry of Health of Ukraine] / edited by Ya. S. Berezhnytskyi, M. P. Zakharash, V. G. Mishalov [and others]. – Vinnytsia: Nova Kniga, 2018. – 342 p.
2. General surgery: a basic textbook [for students of higher education. medical institutions Universities, Institutes and Acad.] / edited by S. D. Khimich, M. D. Zheliba; S. D. Khimich, M. D. 26Zheliba, I. D. Gerych [and others]. - 3rd ed., revised. and additional - Kyiv: Medicine, 2018. -607 p.
3. Surgery: a textbook in two volumes [for students who teach. in higher med. education institutions and postgraduate institutions. of education of the Ministry of Health of Ukraine under special "Medical case"

and "Nursing case"]. T. 1: General surgery with the main types of surgical pathology. Treatment of a patient in a surgical hospital / R. O. Sabadyshin, V. O. Ryzhkovskyi, O. V. Markovych [and others]. – Vinnytsia: New Book, 2018. - 782 p.

4. Surgery: a textbook in two volumes [for students who teach. in higher medical studies institutions and postgraduate institutions. of education of the Ministry of Health of Ukraine under special "Medical case" and "Nursing case"]. Volume 2: Special surgery / R. O. Sabadyshyn , V. O. Ryzhkovskyi, O. V. Markovych [and others]. – Vinnytsia: Nova Kniga, 2018. – 588 p.

5. Surgical diseases: [textbook for students, interns and trainee doctors of post-graduate institutions. education for special "General practice – family medicine"] / edited by P. D. Fomin, Ya. S. Bereznytskyi; Ya. S. Bereznytskyi, O. A. Viltanyuk, M. D. Zheliba [and others]. - Kyiv: Medicine, 2016. - 406 p .

Additional .

1. Ksionz I.V. Practical skills in surgical diseases: Teaching method. Study guide. stomatal faculty in VMNS of education of III-IV levels / I.V. Xionz. - Poltava, 2001. - 105 p.

2. Lysenko R.B. Emergency surgery: Current issues of diagnosis and treatment tactics: [study guide for university students. honey. education Institutions of the IV level of accreditation and intern doctors] / R.B. Lysenko, V.D. Sheiko; Ministry of Health, UMSA. - Poltava: [B.v.], 2008. - 187 p.

3. Emergency surgery: Guide for doctors / M.M. Bagirov, A.D. Bedeniuk, I.K. Wenger and others ; Under the editorship L. Ya. Kovalchuk. - Ternopil: Ukrmedknyga, 2000. - 286 p.

4. Operative surgery: surgical operations and manipulations: Textbook for students. State Medical University of III-IV levels / Ed. I.U. The whistle - K.: Health, 2001. - 367 p.

5. Rozdolsky I.V. Emergencies in surgery: a textbook for university students. honey. educational institutions of I-III accreditation levels / I.V. Rozdolskyi - 2nd ed., stereotype. - K.: Medicine, 2009. - 142 p.

6. Emergency surgery: teaching. study guide stomatal faculty / V.D. Sheiko, B.P. Lysenko, A.L. Chelishvili and others; under general ed. V.D. Sheiko; UMSA - Poltava, 2007 (RVV UMSA). - 144 p.

7. Surgery. Basics and practice: in 2 volumes: [textbook for students. honey. universities]: trans. from English. T. 1 / edited by A.P. Forrest, D.S. Carter, I.B. McLeod; ed. - translation consultant P. Jul. - 3rd ed.. - K.: Kobza, 1994. - 343 p.: ill. -Trans. ed.: Prinziplesand Practice of Surgery/ ed.: APM Forrest, DC Carter, IB Macleod. - 2nd ed., 1991.

8. Urgent abdominal surgery: a study guide for students of medical universities and surgeons during the cycles of TU/ V.I. Lyakhovskyi, I.I. Nemchenko, O.M. Lyulka et al ., edited by Prof. V.I. Lyakhovskyi; VDZU "UMSA". – Poltava: Techservice Firm LLC, 2018. – 224 p.

Approved:

В.о.Пектора /Acting Rector

Дмитро Говсієв

