

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

Petro Mohyla Black Sea National University

Medical Institute

Department of Surgical Disciplines



CURRICULUM OF THE TRAINING DISCIPLINE

SURGERY, INCLUDING PEDIATRIC SURGERY, NEUROSURGERY

Specialty 222 "Medicine"

Developer
Head of the Department
Guarantor of Educational Program
Director of the Institute

Head of TDD

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Zack M.U.
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Hryshchenko H.V.

Shkirchak S.I.

A collection of handwritten signatures in blue ink, corresponding to the names listed in the adjacent text block. The signatures are fluid and cursive.

1. Description of training discipline

Name of the indicator	discipline profile	
Name of discipline	Surgery	
field of expertise	22 "Health".	
specialty	222 "Medicine"	
Specialization (if any)		
education programme	Surgery	
Level of higher education	Master	
discipline status	Normative	
training course	Year 5	
school year	2021/2022	
Semester numbers:	Daytime Form	extramural form
	9th, 10th.	-
Total number of ECTS credits / hour	7.5 credits (4 / 3.5) / 225 hours	
Course Structure: <ul style="list-style-type: none"> - lectures - practical exercises - hours of students' independent work 	Daytime Form	extramural form
	20 hours (12/8)	
	110 hours (60/50)	
	95 hours (50/45)	
Percentage of class workload	58%; independent work of students 42%	
Language of instruction	English	
Form of intermediate control (if any)	Attestation for semester 9	
Form of final control	Exam - 10th semester	

2. Goal, objectives and planned learning outcomes

purpose: assimilation of theoretical and practical knowledge of etiology, pathogenesis, clinic of typical and atypical symptomatology of surgical diseases of certain nosology, methods of diagnostics, conservative and operative treatment, rehabilitation of surgical pathology according to training program of general practitioner.

Learning objectives: acquisition of competencies, knowledge, skills and abilities by the student to carry out professional activities in the specialty

- To assimilate the anatomical and physiological features of the thoracic cavity and endocrinology;
- Interpret the etiology, pathogenesis and classification, clinical presentation of diseases of the thoracic cavity and endocrinology;
- determine methods of diagnostics, methods of conservative and surgical treatment of the mentioned diseases;
- identify indications and contraindications for lung and heart transplantation;
- Define the principles of postoperative treatment and rehabilitation of patients with endocrine organ and thoracic cavity pathology;
- to learn the risk factors for complications;
- interpret the results of laboratory and instrumental examination;
- Demonstrate mastery of the moral and ethical principles of a medical specialist and the principles of professional subordination in surgery;
- to carry out prognosis of life and prognosis of life and prognosis of prognosis of these surgical diseases;
- Interpret the general principles of treatment, rehabilitation and prevention of surgical diseases of the endocrine organs and thoracic cavity;
- Demonstrate proficiency in medical record keeping in the surgical clinic;
- provide emergency medical care for urgent surgical diseases of the thoracic cavity.
- learn the anatomical and physiological features of the vascular system;
- Interpret the etiology, pathogenesis and classification, clinical presentation of diseases of the vascular system;
- Identify methods of diagnosis, methods of conservative and surgical treatment of diseases of the vascular system and injuries of great vessels;
- to highlight the principles of postoperative treatment and rehabilitation of patients with vascular pathology;
- identify risk factors for complications;
- interpret the results of laboratory and instrumental examination;
- Demonstrate mastery of the moral and ethical principles of a medical specialist and the principles of professional subordination in surgery;
- perform prognosis of life and disability in surgical diseases of the vascular system;
- interpret the general principles of treatment, rehabilitation and prevention of the most common surgical diseases of the vascular system;
- Demonstrate proficiency in medical record keeping in the surgical clinic;
- Provide emergency medical care in urgent conditions of surgical diseases of the vascular system (trauma of the main vessels).

Expected learning outcomes. As a result of studying the discipline students should: to know:

- etiological and pathogenetic factors of the most common surgical diseases according to OKC list 1;

- various clinical variants and complications of the most common surgical diseases of the thoracic cavity, cardiovascular and endocrine systems;
- Diagnostic and treatment algorithm of medical care for emergency conditions in the clinic of surgical diseases;
- indications and contraindications to surgery in elective and urgent thoracic, cardiovascular, endocrine surgery, management of the postoperative period;
- know the indications and contraindications for lung and heart transplantation;

To be able to:

- Identify the most common clinical symptoms and syndromes in the thoracic, cardiovascular, endocrine surgery clinic
- diagnose and provide medical care for emergencies in the clinic of thoracic, cardiovascular, endocrine surgery
- Demonstrate mastery of the moral and ethical principles of medical specialist and the principles of professional subordination in surgery
- Interpret the general principles of treatment, rehabilitation and prevention of the most common diseases of thoracic, cardiovascular, endocrine surgery
- Perform prognosis of life and disability in the most common diseases of thoracic, cardiovascular, endocrine surgery
- Identify the main etiological and pathogenetic factors of the most common diseases of thoracic, cardiovascular, endocrine surgery
- Classify and analyze the typical clinical picture of the most common diseases of thoracic, cardiovascular, endocrine surgery
- Make an examination plan and analyze the data of laboratory and instrumental examinations in the typical course of the most common diseases of thoracic, cardiovascular, endocrine surgery
- Determine indications and contraindications for surgery in elective and urgent thoracic, cardiovascular, endocrine surgery
- Determine the tactics of the post-operative period, prescribe the necessary treatment
- Demonstrate ability to perform necessary medical manipulations

mother of competence

The developed program corresponds to the educational and professional program (EPP) and focuses on the formation of competencies:

general (GK) - GK1 to GK3 of the SRB:

- ability to think abstractly, analyze and synthesize; ability to learn and master modern knowledge;
- ability to apply knowledge in practical situations;
- knowledge and understanding of the subject area and understanding of professional activities;

professional competencies (FC) - FC1-FC9, 11, 14, 15, 18 RPF

- Patient Interviewing Skills.
- ability to determine the required list of laboratory and instrumental examinations and to evaluate their results.
- ability to establish a preliminary and clinical diagnosis of the disease.
- the ability to determine the necessary work and rest regimes for the treatment of diseases.
- the ability to determine the nature of nutrition in the treatment of diseases.
- the ability to determine the principles and nature of disease management.
- ability to diagnose emergencies.
- the ability to determine emergency medical care tactics.
- Emergency medical care skills.

- Skills in performing medical manipulations.
- ability to carry out sanitary and preventive measures.
- ability to plan and carry out preventive and anti-epidemic measures for infectious diseases.

The developed program is consistent and focused on the formation and provision of program learning outcomes (PLEs) of the PGP:

Program Learning Outcomes (PLO): 11; 13 - 18; 22; 25; 28; 30; 32; 33; 35; 41 PLOs:

<p>PLO 11</p>	<p>Collect data on patient complaints, medical history, life history (including professional anamnesis), in conditions of health care facility, its unit or at home of the patient, using the results of the interview with the patient, according to the standard scheme of interviewing the patient. In all circumstances (in a health care facility, its unit, at the patient's home, etc.), using knowledge of the person, his organs and systems, according to certain algorithms: collect information about the patient's general condition (consciousness, constitution) and physical appearance (examination of skin, subcutaneous fat globules, palpation of lymph nodes, thyroid and mammary glands); assess the child's psychomotor and physical development; examination of the cardiovascular system (examination and palpation of the heart and superficial vessels, determination of percussion boundaries of the heart and vessels, auscultation of the heart and vessels) examine the respiratory system (examination of the chest and upper airways, palpation of the chest, percussion and auscultation of the lungs) examine the condition of the abdominal organs (abdominal examination, palpation and percussion of the intestines, stomach, liver, spleen, palpation of the pyloric gland, kidneys, pelvic organs, palpation of the rectum); examine the musculoskeletal system (examination and palpation) to examine the condition of the nervous system; examine the condition of the genitourinary system; assess fetal intrauterine development with fetal weight calculation and fetal heartbeat auscultation.</p>
<p>PLO 13</p>	<p>In the setting of a health-care facility, its subdivision and among the attached population: Identify and report the leading clinical symptom or syndrome (List 1) by making an informed decision using initial patient history, physical examination data, knowledge of the person, his or her organs and systems, and adhering to appropriate ethical and legal standards. Be able to establish the most probable or syndromic diagnosis Diagnose the most likely or syndromic case (List 2) by making an informed decision, comparing standards, using initial history and physical examination data, based on the leading clinical symptom or syndrome, using knowledge of the individual, his/her organs and systems, and adhering to appropriate ethical and legal guidelines.</p>
<p>PLO 14</p>	<p>In the setting of a health care facility, its subdivision: - • Prescribe laboratory and/or instrumental examination of the patient (according to list 4) by making an informed decision, based on the most probable or syndromic diagnosis, according to a standardized scheme, using knowledge of the person, its organs and systems, adhering to relevant ethical and legal rules. - • Carry out differential diagnosis of diseases (on list 2) By making an informed decision, according to a defined algorithm, using the most probable or syndromic diagnosis, given a laboratory and instrumental examination of the patient, knowledge of the person, its organs and systems, adhering to appropriate ethical and legal standards.</p>

	- • Establish a preliminary clinical diagnosis (List 2) by informed decision-making and logical analysis using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient, findings of differential diagnosis, knowledge of the person, his organs and systems, adhering to relevant ethical and legal standards.
PLO 15	Determine appropriate work and rest patterns for the treatment of illness (List 2) in the health care setting, in the patient's home and during medical evacuation phases, including in the field, based on a preliminary clinical diagnosis, using knowledge of the person, their organs and systems, following appropriate ethical and legal standards, by making informed decisions based on existing algorithms and standard schemes.
PLO 16	Determine appropriate therapeutic nutrition for disease management (List 2), in the healthcare setting, in the patient's home and during medical evacuation phases, including. In the field based on a preliminary clinical diagnosis, using knowledge of the person, his/her organs and systems, adhering to relevant ethical and legal standards, by making informed decisions based on existing algorithms and standard schemes.
PLO 17	Determine the nature of treatment (conservative, surgical) of the disease (list 2), in the health facility, the patient's home and the stages of medical evacuation, including in the field, based on a preliminary clinical diagnosis, using knowledge of the person, its organs and systems, adhering to relevant ethical and legal standards, by making informed decisions on the existing algorithms and standard schemes. Determine principles of disease management (List 2), in the health care setting, in the patient's home and in medical evacuation phases, including in the field, based on a preliminary clinical diagnosis, using knowledge of the person, its organs and systems, adhering to appropriate ethical and legal standards, by making informed decisions using existing algorithms and standard schemes.
PLO 18	Establish a diagnosis (List 3) by making an informed decision and assessment of the person's condition, in all circumstances (home, street, health facility, its unit), including in an emergency, in the field, under conditions of lack of information and limited time, using standard techniques of physical examination and possible anamnesis, knowledge of the person, its organs and systems, adhering to relevant ethical and legal standards.
PLO 22	Perform medical manipulations (list 5) in a facility, home or workplace setting based on a preliminary clinical diagnosis and/or patient measures, using knowledge of the person, their organs and systems, adhering to appropriate ethical and legal standards, by making informed decisions and using standard techniques.
PLO 25	Shape, in the context of a health care facility, its units in the workplace, using a generalized human health assessment procedure, knowledge of the human being, its organs and systems, adhering to appropriate ethical and legal standards, by making informed decisions, among the assigned population : dispensary groups of patients; groups of healthy people subject to dispensary monitoring (Newborns, children, adolescents, pregnant women, representatives of professions, must undergo compulsory dispensary monitoring).
PLO 28	Organize secondary and tertiary prevention activities among the assigned population using a generalized health assessment procedure (screening, preventive health examinations, seeking medical care), knowledge of the human being, its organs and systems, adhering to relevant ethical and legal standards, by making informed decisions, in the health facility setting in particular: form dispensary observation groups; organize therapeutic and recreational activities differentiated by the dispensary group.

PLO 30	Carry out in the setting of a health care facility, its subdivision: - • Detection and early diagnosis of infectious diseases (according to list2) * primary anti-epidemic measures in the focus of infectious disease.
PLO 32	In a health care facility or in the patient's home, based on the patient's health status, using standardized charts, using knowledge of the person, their organs and systems, adhering to appropriate ethical and legal standards, by making an informed decision: determine the tactics of examination and secondary prevention of patients, to be subject to dispensary observation; Determine screening and primary prevention tactics for healthy individuals subject to dispensary care; calculate and prescribe the necessary foods for children in the first year of life.
PLO 33	Determine the presence and degree of disability, type, degree and duration of disability with registration of appropriate documents, in the conditions of health care facilities on the basis of data on the disease and its course, the peculiarities of professional activity of the person.
PLO 35	In the service area according to standard descriptive, analytical epidemiological and medico-statistical research methods: conduct screening to detect important noncommunicable diseases; assess in dynamics and in comparison with statistical averages the indicators of morbidity, including chronic non-infectious diseases, disability, mortality, integral health indicators; Identify risk factors for the occurrence and course of diseases; form at-risk populations.
PLO 41	In the setting of a health care facility or its subdivision, according to standard methods: select and use evidence-based unified clinical protocols for the delivery of health care; Participate in the development of local medical protocols; conduct quality control of health care based on statistical data, expert assessment and sociological data using structure, process and outcome indicators; identify barriers to improving the quality and safety of medical care.

3. Programme of study discipline

The educational process is organized according to the European Credit Transfer and Accumulation System (ECTS).

The curriculum of the discipline consists of two blocks:

unit 1

Topic 1. Surgical pathology of respiratory system. Indications and contraindications for lung transplantation. Conditions of donor lung storage and transportation.

Purulent diseases of lungs and pleura. Abscess and gangrene of lungs, bronchiectatic disease. Acute and chronic empyema of pleura, piopneumothorax. Features of the clinical course. Differential diagnostics. Methods of conservative and surgical treatment.

Theme 2.Thoracic trauma.

Thoracic trauma. Classification. Early and late complications. Differential diagnostics. First aid and tactics of treatment.Methods of surgical treatment. Traumatic injuries of the peripheral nervous system Classification of traumatic injuries of peripheral nerves. Clinic.

Diagnostics. Emergency treatment of patients with traumatic injury of peripheral nerves. Compression-ischemic (tunnel) neuropathy. The algorithm for determining the tactics of treatment of open and closed injuries of peripheral nerves. The modern principles and methods of surgical interventions in peripheral nerve injury depending on the type, level and mechanism of injury. Modern principles of rehabilitation treatment of patients in the postoperative period.

Topic 3. Diseases of the esophagus. Diaphragmatic hernia. Diseases of the mediastinum, diaphragm. Relaxation of the diaphragm.

Diseases and injuries of the esophagus Benign tumors and cysts. Burns. Injuries. Achalasia of cardia, hernia of oesophageal diaphragm, gastroesophageal reflux, Diverticula. Other conditions: Foreign bodies, BARRETT esophagus. Interstitial diseases. Classification. Diagnostics. Differential diagnosis. Methods of surgical treatment.

Topic 4. Coronary heart disease, cardiac rhythm disorder. Emergency surgical care for myocardial infarction. Surgical pathology of the heart. Heart transplantation.

Coronary heart disease. Complications: myocardial infarction, cardiac aneurysm, conduction disorders. Indications for surgical treatment. Emergency surgical care for myocardial infarction. Methods of surgical interventions. Acquired heart defects. Classification. Diagnostics. Indications for surgical treatment. Methods of surgical interventions. Indications and contraindications for heart transplantation. Conditions of storage of the donor heart and its transportation.

Topic 5. Euthyroid and diffuse toxic goiter.

Euthyroid and toxic goiter. Classification. Special methods of research. Diagnostics. Differential diagnosis. Preoperative preparation. Surgical treatment. Closed craniocerebral trauma (CMT). Classification. Clinic, diagnosis and treatment of concussion, contusion and compression of the brain. Rendering first aid to patients with CMT at the scene and at the pre-hospital stage. Modern methods of diagnosis, evaluation of their informativeness. Indications for surgical treatment in acute and distant periods of ChMT. Methods of cranial trepanation, principles of operations on the brain. Methods for stopping bleeding from the soft tissues of the head, dura mater, cerebral vessels. Early and late complications of a closed CMT. Conservative treatment of CHMT in the long-term period of the disease. Rehabilitation and reintegration of patients.

Topic 6: Obliterative arterial diseases.

Chronic ischemia of the lower extremities. Obliterating atherosclerosis and endarteritis. Classification of chronic ischemia and levels of aortic and arterial occlusion of the lower extremities. Clinical variants of course. Diagnostics. Differential diagnostics. Complications. Methods of conservative treatment. Prophylaxis. Rehabilitation. Open craniocerebral trauma (CMT). Classification, Clinic, Diagnosis. Combined and combined CMT, especially Clinic and diagnostics. Principles of emergency care for patients with open, combined and combined CMI at various stages of evacuation. The use of modern research methods in the diagnosis of CMT. Primary surgical treatment of open penetrating and non-penetrating wounds of the skull and brain. Early and late complications in open cranial trauma, the principles of surgical treatment. Modern methods of plastic cranial bone defects. Peculiarities of the course of CMT depending on the age and somatic condition of patients. Maternal ChMT, emergency care, principles of treatment and prevention. Dispensary supervision, rehabilitation of patients.

Topic 7: Arterial thrombosis and embolism. Thrombosis of the main veins. Post-thrombotic syndrome.

Arterial thrombosis and embolism. Classification of acute limb ischemia. Clinical stages of course. Diagnostics. Differential diagnostics. Methods of surgical treatment. Thrombosis of the main veins. Classification. Clinics. Diagnostics. Differential diagnostics. Methods of conservative

and surgical treatment. Post-thrombotic syndrome. Classification. Diagnostics. Conservative and surgical methods of treatment.

Topic 8: Vascular trauma.

Classification. Clinic. Diagnostics. Special methods of investigation. Variants of the clinical course. Conservative and orthopedic treatment. Rehabilitation. Spinal cord injury (SCI). Etiopathogenesis of traumatic lesions of the spine and spinal cord. Classification. Clinic of various types of spinal cord and spinal cord injuries depending on the level of injury. Modern methods of clinical and instrumental diagnosis. Evaluation of identified changes in the application of auxiliary diagnostic methods of traumatic injuries of the spinal cord and spine.

Topic 9. varicose veins of the lower extremities. lymphedema

Varicose veins of the lower extremities. Classification. Complications. Diagnostics. Special methods of research. Methods of surgical treatment Lymphadema of the limbs. The forms of the disease. Clinical conditions. Diagnostics. Variants of clinical course. Conservative and orthopedic treatment. Emergency treatment of patients with traumatic lesions of the spine and spinal cord, the main methods and principles of transport immobilization of patients depending on the level of injury.

Topic 10. Pulmonary embolism

Pulmonary embolism. Clinic, diagnosis, treatment. Means of prevention. Abdominal ischemic syndrome. Clinical variants of course. Diagnostics. Differential diagnostics. Complications. Methods of conservative treatment. Prophylaxis. Rehabilitation. Indications for surgical treatment for spinal cord injury. Modern methods of treatment of spinal cord and spinal cord injuries. Prevention and treatment of complications in the acute and remote periods. Rehabilitation treatment of patients.

block #2

Topic 1: Malformations that are accompanied by respiratory insufficiency in children.

Congenital pulmonary hypoplasia. Congenital lung cysts. Etiology, pathogenesis, clinical symptomatology, diagnosis, treatment. Bronchiectatic disease. Etiology, pathogenesis, clinical symptomatology, diagnosis, treatment.

Topic 2: Malformations that are accompanied by intestinal obstruction in children.

Atresia of the esophagus. Etiology, pathogenesis, clinical symptomatology, diagnosis, treatment. Gastroschisis. Umbilical hernia. Prune-Belle syndrome. Etiology, pathogenesis, clinical symptomatology, diagnosis, treatment. Dispensary supervision. Indications for the provision of social assistance. Leda syndrome. Intestinal malrotation syndrome. Congenital hypertrophic pylorostenosis. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. Dispensary supervision. Indications for the provision of social assistance. Hernias of the anterior abdominal wall in children. Cryptorchidism. Etiology, pathogenesis, clinical symptoms, diagnosis, differential diagnosis, treatment. Dispensary supervision. Indications for the provision of social assistance

Topic 3: Malformations of the urogenital system in children.

Aplasia, agenesis of the kidney. Polycystic kidney disease. Polycystic kidney disease. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. Etiology pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, lycuvannya. Congenital hydronephrosis. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. Bladder ectrophy. Hypospadias. Epispadias. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. Doubling of

the kidney. Vesicoureteric-seciventric reflux. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment.

Topic #4. Malformations of the musculoskeletal system and benign neoplasms of bones and joints in children.

Hip joint dysplasia. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. Congenital torticollis. Congenital clubfoot. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. Polydactyly, syndactyly, arachnodactyly. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment.

Topic №5 Malignant neoplasms of bones and joints. Malignant neoplasms of soft tissue.

Nephroblastoma. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. Neuroblastoma. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. Pigmented tumors. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. Osteoma, osteoid osteoma, osteochondroma, fibrous bone dysplasia. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. Rhabdomyosarcoma, osteogenic sarcoma, Ewing sarcoma

Topic #6. Polytrauma in children. Gastrointestinal bleeding in children.

Combined injury. Connective trauma. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis treatment. Doctor's tactics at the stage of hospital treatment. Combined trauma. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. Doctor's tactics at the stage of hospital treatment. Provision of first aid in polytrauma at pre-hospital stage. Requirements for transportation of patients with polytrauma. Bleeding from the upper, middle and lower gastrointestinal tract. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis. treatment, criteria and indications for surgical treatment depending on the etiological factor and the activity of bleeding.

Topic #7. Traumatic shock. Painful shock.

Traumatic shock. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. Provision of first medical aid at pre-hospital stage. Painful shock. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment.

Topic 8: Intrathoracic tension syndrome.

Intrathoracic tension syndrome. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. Tactics of care at pre-hospital stage. Classification of drains, indications for their use. Types of drainage, indications for their use. Indications for puncture and surgical methods of treatment of intrathoracic tension syndrome.

Topic #9. Septic shock.

Septic shock. Etiology, pathogenesis, clinical symptomatology. Differential diagnosis, syndromic treatment. Septic shock. Rendering first aid at pre-hospital stage. Characteristics of the main groups of medical drugs therapy of septic shock.

Structure of the training discipline

topic titles	lectures	Practical training / seminars	Student's independent work	IRS
Block No. 1				

Topic 1. Surgical pathology of respiratory system. Indications and contraindications for lung transplantation. Conditions of donor lung storage and transportation	2	6	6	
Topic 2 Thoracic trauma. Traumatic injuries of the peripheral nervous system Classification of traumatic injuries of peripheral nerves. Clinic. Diagnosis. Emergency treatment for patients with traumatic peripheral nerve injury.		6	6	
Topic 3. Diseases of the esophagus. Diaphragmatic hernia. Diseases of the mediastinum, diaphragm. Relaxation of the diaphragm.	2	6	6	
Topic 4. Coronary heart disease, cardiac rhythm disorder. Emergency surgical care for myocardial infarction. Surgical pathology of the heart. Heart transplantation.	2	6	6	
Topic 5: Euthyroid and diffuse toxic goiter. Closed craniocerebral injury (CCI). Classification. Clinic, diagnosis and treatment of concussion, contusion and compression of the brain. First-aid treatment of patients with CMI at the scene of the accident and at the pre-hospital stage.	2	6	6	
Topic 6: Obliterative arterial disease. Open craniocerebral trauma (CMT). Classification, clinic, diagnosis. Combined and combined CMI, features of clinical picture and diagnosis. Principles of emergency care for patients with open, combined and combined traumatic brain injury at various stages of evacuation.	2	6	5	
Topic 7. arterial thrombosis and embolism. thrombosis of the main veins. Postthrombotic syndrome. Classification of acute ischemia of the extremities. Clinical stages of the course. Diagnostics.	2	6	5	
Topic 8: Vascular injuries. Spinal cord injury (SCI). Etiopathogenesis of traumatic lesions of the spine and spinal cord. Classification. Clinic of different types of spinal cord and spinal cord injuries depending on the level of injury.		6	5	
Topic 9. Varicose veins of the lower veins of the extremities. Lymphedema. Emergency treatment of patients with traumatic lesions of the spine and spinal cord, the main methods and principles of transport immobilization of patients depending on the level of injury.		6	5	
Topic 10. Pulmonary embolism Indications for surgical treatment in spinal cord injury. Modern methods of treatment of spinal cord and spinal cord injuries. Prevention and treatment of complications in the acute and remote periods. Rehabilitation treatment of patients.		6	5	
Total for Block No. 1	12	60	50	
total hours	135			
Block No. 2				

Topic 11. Malformations that are accompanied by respiratory insufficiency in children.	2	5	5	
Topic 12. Malformations that are accompanied by intestinal obstruction in children.		5	5	
Topic 13. Malformations of the urogenital system in children.		5	5	
Topic 14. Malformations of the musculoskeletal system and benign neoplasms of bones and joints in children.	2	5	5	
Topic 15. Malignant neoplasms of bones and joints. Malignant neoplasms of soft tissues.	2	6	5	
Topic 16. Polytrauma in children. Gastrointestinal bleeding in children.		6	5	
Topic 17. Traumatic shock. Painful shock.	2	6	5	
Topic 18. Syndrome intrathoracic tension syndrome.		6	5	
Topic 19. Septic shock.		6	5	
Total for block No. 2	8	50	45	
Total hours in the discipline	20	110	95	
Total hours in units 1 and 2		225		

4. Content of the training discipline

4.1. lecture plan

№	topic	number of hours
Block No. 1		
1	Surgical pathology of respiratory system. Indications and contraindications for lung transplantation. Conditions of donor lung storage and transportation. 1. Congenital pulmonary hypoplasia. 2. Congenital lung cysts. Etiology, pathogenesis, clinical symptomatology, diagnosis, treatment. 3. Bronchoectatic disease. Etiology, pathogenesis, clinical symptomatology, diagnosis, treatment. 4. Conditions of donor lung storage and transportation.	2
2	Diseases of the esophagus. Diaphragmatic hernia. Diseases of the mediastinum, diaphragm. Relaxation of the diaphragm. Diseases and injuries of the esophagus 1. Benign tumors and cysts. 2. Opics. Injuries. Achalasia of the cardia, 3. Esophageal esophageal grigs, gastroesophageal reflux, Diverticula. 4. Insha diseases: Foreign bodies, BARRETT esophagus. Diseases of the interstitium. Classification. Diagnostics. Differential diagnosis. Methods of surgical treatment.	2
3	Euthyroid and diffuse toxic goiter. Euthyroid i toxic goiter. 1. Classification. Special research methods. 2. Diagnosis. Differential diagnosis. 3. Preoperative preparation. Surgical treatment. 4. Zakrita craniocerebral trauma (CCI). Classification.	2

	5. Clinic, diagnosis and treatment of concussion, contusion and compression of the brain. Provision of first aid to patients with CMI at the scene of the accident and at the pre-hospital stage. Modern methods of diagnosis, evaluation of their informativeness.	
4	Obliterative arterial disease. 1. chronic ischemia of the lower extremities. Obliterative atherosclerosis and endarteritis. Classification of chronic ischemia and levels of occlusion of the aorta and arteries of the lower extremities. 2. Clinical variants of course. Diagnostics. Differential diagnostics. Complications. Methods of conservative treatment. Prophylaxis. Rehabilitation. 4. open traumatic brain injury (CBI). Classification, clinic, diagnosis. 5. Combined and combined traumatic brain injury, features of the clinic and diagnosis. Principles of emergency care for patients with open, combined and combined traumatic brain injury at various stages of evacuation. The use of modern research methods in the diagnosis of CMT.	2
5	I have a heart condition. Complications: myocardial infarction, cardiac aneurysm, conduction disorders. 2. Screening for surgical treatment. 3. emergency surgical care for myocardial infarction. Methods of surgical interventions. 4. acquired heart defects. Classification. Diagnosis. 5. Indications for surgical treatment. Methods of surgical interventions	2
6	Arterial thrombosis and embolism. Arterial thrombosis and embolism. (1) Trunk vein thrombosis. Postthrombotic syndrome. Classification of acute limb ischemia. 2. Clinical stages of the course. Diagnostics. Differential diagnosis. 3. surgical treatment methods. 4. trunk vein thrombosis. Classification. Clinic. Diagnostics. Differential diagnostics. 5. Methods of conservative and surgical treatment. Pislyatrombophlebitis syndrome.	2
Block No. 2		
7	Malformations accompanied by respiratory insufficiency in children. 1. Congenital pulmonary hypoplasia. Congenital lung cysts. 2. etiology, pathogenesis, clinical symptomatology, diagnosis, treatment. 3. bronchiectatic disease. Etiology, pathogenesis, clinical symptomatology, diagnosis, treatment.	2
8	Malformations of the musculoskeletal system and benign neoplasms of bones and joints in children. 1. Hip dysplasia. 2. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. 3. Congenital torticollis. Congenital clubfoot. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. 4. Polydactyly, syndactyly, arachnodactyly	2
9	malignant tumors 1. Nephroblastoma. Etiology, pathogenesis, clinical symptomatology,	2

	diagnosis, differential diagnosis, treatment. 2. Neuroblastoma. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. 3. pigmented tumor. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment.	
10	Traumatic shock. Pain shock. 1. etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. 2. pre-hospital first aid treatment. 3. pain shock. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. 4. first aid at the pre-hospital stage.	2
9	in total:	20

4.2 Practical lesson plan

№	topic	number of hours
	Block No. 1	
1	Topic 1. Surgical pathology of the respiratory system.	6
2	Topic 2: Trauma to the thorax. Peripheral nervous system traumatic injuries	6
3	Topic 3. Diseases of the esophagus. Diaphragmatic hernia. Diseases of the mediastinum, diaphragm.	6
4	Topic 4. Coronary heart disease, heart rhythm disorders.	6
5	Topic 5. Euthyroid and diffuse toxic goiter. Closed craniocerebral injury (CCI).	6
6	Topic 6: Obliterative arterial disease. Open craniocerebral trauma (CTS).	6
7	Topic 7: Arterial thrombosis and embolism. Thrombosis of the main veins.	6
8	Topic 8: Vascular injuries. Spinal cord injury (SCI).	6
9	Topic 9. varicose veins of the lower extremities. Lymphedema. Emergency treatment of patients with traumatic lesions of the spine and spinal cord	6
10	Topic 10. Pulmonary embolism Indications for surgical treatment in spinal cord injury.	6
11	Final control work No. 1	2
	in total:	62
	block #2	
12	Topic 11. Malformations with respiratory insufficiency in children.	6
13	Topic 12. Malformations that are accompanied by intestinal obstruction in children.	6
14	Topic 13. Malformations of the urogenital system in children	6
15	Topic 14. Defects of the musculoskeletal system and benign neoplasms of bones and joints in children.	6
16	Topic 15. Malignant neoplasms of bones and joints. Malignant neoplasms of soft tissues.	6
17	Topic 16. Polytrauma in children. Gastrointestinal bleeding in children	4
18	Topic 17. Traumatic shock. Painful shock.	4

19	Topic 18. Syndrome intrathoracic tension syndrome.	4
20	Topic 19. Septic shock.	4
21	Final control work No. 2	2
	in total:	48
	Total practice sessions:	110

4.3 Assignments for independent work

No. of items.	THEME	number of hours
BLOCK 1		
1.	Preparation for practical classes (theoretical training, practicing practical skills)	12
2.	Taking online courses and online testing	12
3.	Independent study of topics that are not included in the plan of classroom lessons Block 1 (the list is attached)	12
4.	individual work	13
5.	Preparation for the final control paper No. 1	5
INCLUDING:		54
BLOCK 2		
1.	Preparation for practical classes (theoretical training, practicing practical skills)	11
2.	Taking online courses and online testing	10
3.	Independent study of topics that are not part of the classroom plan Block 2 (list attached)	10
4.	individual work	5
5.	Preparation for the final control paper No. 2	5
TOGETHER:		41
TOTAL BLOCK #1-2:		95

List of topics for independent work unit 1

1. acute and chronic pleural empyema, pyopneumothorax.
2. peculiarities of clinical course. Differential diagnosis. methods of conservative and surgical treatment.
3. Emergency treatment of patients with traumatic injury of peripheral nerves. Compression-ischemic (tunneling) neuropathies. Algorithm for determining the tactics of treatment of open and closed injuries of peripheral nerves.
4. Current principles and methods of surgical interventions for peripheral nerve injury depending on the type, level and mechanism of injury.
5. Modern principles and methods of surgical interventions in peripheral nerve injury depending on the type, level and mechanism of injury. Modern principles of rehabilitation treatment of patients in the postoperative period.
6. Diseases of the mediastinum. Methods of surgical treatment.
7. emergency surgical care for myocardial infarction. Methods of surgical interventions. Acquired heart defects.
8. Provision of first aid to patients with traumatic brain injury at the scene of the accident and at the pre-hospital stage.
9. Modern methods of diagnosis, assessment of their informative value. Indications for surgical treatment of traumatic brain injury in the acute and distant periods.
10. Principles of emergency care for patients with open, combined and combined traumatic events

at different stages of evacuation.

11. modern methods of investigation in the diagnosis of HFMT.

12. Primary surgical management of open penetrating and non-penetrating wounds of the skull and brain. Early and late complications of open traumatic brain injury,

13. Modern methods of clinical and instrumental diagnostics in PSMT

14. Emergency treatment of patients with traumatic lesions of the spine and spinal cord, the main methods and principles of transport immobilization of patients depending on the level of injury.

unit 2

15. Bronchiectatic disease. Etiology, pathogenesis, clinical symptomatology, diagnosis, treatment

16. Leda syndrome. Intestinal malrotation syndrome.

17. Congenital hypertrophic pylorostenosis. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment.

18. dispensary supervision. Indications for the provision of social assistance in congenital hypertrophic pylorostenosis.

19. Hypospadias. Epispadias. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment.

20. Doubling of the kidney. Vesicoureteric-seciventric reflux. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment.

21. Polydactyly, syndactyly, arachnodactyly. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment.

22. Bleeding from the upper, middle and lower gastrointestinal tract. Criteria and indications for surgical treatment depending on the etiological factor and the activity of bleeding.

23. Osteoma, osteoid osteoma, osteochondroma, fibrous bone dysplasia. Etiology, pathogenesis, clinical symptomatology, diagnosis, differential diagnosis, treatment. Rhabdomyosarcoma, osteogenic sarcoma, Ewing sarcoma

24. Provision of first aid for polytrauma at the pre-hospital stage. Requirements for transportation of patients with polytrauma. Bleeding from the upper, middle and lower gastrointestinal tract.

25. Provision of first aid at pre-hospital stage in case of painful shock.

26. Septic shock. Provision of first aid at pre-hospital stage.

27. Hernias of the anterior abdominal wall in children. Etiology, pathogenesis. Treatment.

individual assignments

Selection and review of scientific literature on the topics of the program on surgery at the choice of the student with the writing of the abstract and its public defense.

Selection and review of scientific literature on the subjects of research work of the department with the preparation of the scientific report at the meeting of the SSS or at the student conferences.

Research on the subjects of research work of the department with the publication of the results in scientific journals.

Individual assignment is assessed in accordance with the criteria and grades of the individual practical session (see section 6 below).

Typical test problems to be solved in practical classes:

1. a patient, 40 years old, suffered a road traffic polytrauma: closed craniocerebral injury, open fracture of the left femur with femoral artery injury. The ambulance team arrived 10-12 min after the injury. The patient was unconscious. Pulse is thready 116 in 1 min. AO is 60/40 mm. How should resuscitation measures be started?

A- Stop bleeding

B- Administer adrenaline \ in

C- Administer defibrillation

D- Enter \ into the reformatan

E- Take an ECG

2. patient A., 19 y.o. Hospitalized for duodenal ulcer complicated by bleeding. The patient was known to have thrombocytopenic purpura. The patient's general condition was of medium severity, Ep. 3.0 t/l, H_v - 98g/l, thrombocytes 95g/l. Choose the method of bleeding treatment.

- A- Platelet transfusion
- B- Administering haemostatic therapy
- C- Surgical treatment for peptic ulcer disease
- D- Anti-hemophilic plasma transfusion
- E- Administration of iron preparations

A 63-year-old patient has been in the intensive care unit with transmural acute myocardial infarction for the third day. Suddenly the patient lost consciousness, convulsions developed. The ECG monitor shows ventricular fibrillation of the heart. Which of the following should be performed first?

- A- perform defibrillation (electrical, or at least mechanical - pre-cardiac shock). If no effect - initiate cardiopulmonary resuscitation
- B- call the emergency medical services team
- C- initiate CPR phase I with indirect cardiac massage
- D- proceed with stage I cardiopulmonary resuscitation with artificial lung ventilation
- E- intravenously administer 300 mg of amiodarone diluted in isotonic NaCl solution

4. A 25-year-old patient has suffered multiple fractures of her lower extremities and pelvis as a result of a traffic accident. The patient has a history of hemophilia A. Examination revealed multiple hematomas in the injured areas. The patient's condition is worsening. Decrease of arterial blood pressure is registered. Specify the most advantageous combination of infusion drugs to treat the patient after antishock treatment.

- A- cryoprecipitate, fresh frozen plasma
- B- cryoprecipitate, glucose
- C- erythrocyte mass
- D- erythrocyte mass, albumin
- E- red cell mass, fresh frozen plasma

5. A 3-year-old boy was admitted to the clinic of pediatric surgery in severe condition 36 hours after the disease onset with intestinal intussusception. The child's grandfather and father have hemophilia in their family. The child is indicated for immediate surgical intervention. What preoperative preparation should be done by the patient. Transfusion of blood products and cryoprecipitate

- A- Saline infusion therapy
- B- infusion therapy using colloidal solutions
- C- Haemostatic therapy during the intervention
- D- Plasma transfusion after surgical intervention

6. A 10-year-old boy, who is seen by a hematologist for hemophilia, injured his right knee joint during exercise. On examination one hour after the injury, the joint is significantly enlarged in size, and the symptom of patellar balloting is positive. What treatment tactics should be chosen in the patient.

- F- Hemostatic therapy, immobilization
- B- Joint puncture
- C- physiotherapeutic treatment
- D- Arthrotomy
- E- Alcohol-furacilin compress

4.4 Ensuring the educational process

1. Multimedia projectors, computers, screens for multimedia presentations, lecture presentations.
2. Demonstration screens, laptops, Power Point and Word files with "Croc-1" tasks for practical and final lessons.
3. examination tickets.
4. Simulators for performing medical procedures and manipulations
5. Clinical base

5. Final control

List of questions of final control (exam)

1. Liver injury in closed abdominal trauma: classification, clinical manifestations.
2. laboratory and instrumental methods of investigation in traumatic liver injury.
3. therapeutic tactics in liver trauma.
4. hemobilia: definition, clinical manifestations. Laboratory and instrumental methods of diagnosis, principles of treatment of hemobilia.
5. Trauma of the spleen: classification, clinical manifestations. Diagnosis and therapeutic tactics in spleen trauma.
6. Differential diagnosis of injuries of parenchymatous and hollow organs in
6. Differential diagnostics of the parenchymatous and hollow organs injuries in closed abdominal trauma.
7. Damage of internal organs of the abdominal cavity in newborns: causes, main types of injuries, clinical manifestations, diagnosis, therapeutic tactics.
8. Classification of esophageal hernia of the diaphragm.
2. Clinical course of sliding esophageal hernia of the diaphragm.
3. Radiological signs of sliding esophageal hernia of the diaphragm.
4. Treatment of sliding esophageal hernia of the diaphragm.
5. Surgical treatment of paraesophageal hernia of the esophageal orifice of the diaphragm.
6. Clinical manifestations of diaphragm relaxation.
7. Diagnosis of diaphragm relaxation.
8. Treatment of total diaphragm relaxation.
9. Clinical stages of achalasia of the esophagus.
10. Achalasia of the esophagus. Clinic, diagnosis.
11. Data of objective examination in achalasia of the esophagus.
12. Differential diagnosis of esophageal achalasia and esophageal cancer.
13. Treatment of achalasia stage I.
14. Classification of esophageal diverticula.
15. Complications of esophageal diverticula. Therapeutic tactics.
16. Conservative and surgical treatment of esophageal achalasia.
17. Surgical accesses for esophageal diverticula.
18. Clinical stages of esophageal burns.
19. Types of plasty in cicatricial strictures of the esophagus.
20. Clinical forms of pulmonary gangrene.
21. Clinical symptoms of acute pulmonary abscess in the stage "before autopsy".
22. Clinical symptoms of acute lung abscess in "post-opening" stage.
23. Clinic of chronic lung abscess.
24. Differential diagnosis of chronic lung abscess and cancer with decay.
25. Differential diagnosis of air cyst and chronic lung abscess.
26. Treatment tactics of patients with acute lung abscess.
27. Methods of sanation of tracheobronchial tree.
28. Treatment of gangrenous lung abscess.
29. Treatment of pulmonary gangrene.
30. Treatment tactics of complicated acute lung abscess.
31. Acute empyema of the pleura. Clinic.

32. Clinical manifestations of limited pleural empyema. Radiological picture.
33. Clinic of limited pyopneumothorax. Radiological signs.
34. Total pyopneumothorax. Clinical course.
35. Additional methods of examination in chronic suppurative processes of the pleura.
36. Differential diagnosis of pleural empyema and pyopneumothorax.
37. Clinic of chronic empyema.
38. Treatment tactics of patients with pyopneumothorax.
39. Indications for puncture of the pleural cavity.
40. Classification of posttraumatic hemothorax.
41. Treatment tactics for closed thoracic trauma complicated by large hemothorax.
42. Signs of intrapleural hemorrhage. Indications for thoracotomy.
43. Treatment tactics in coagulated hemothorax.
44. Diagnosis and treatment of penetrating heart wounds.
45. Classification of posttraumatic pneumothorax.
46. Causes of subcutaneous emphysema. Methods of treatment.
47. Treatment of mediastinal emphysema.
48. Treatment of posttraumatic pneumothorax. Types of aspiration systems.
49. Treatment of open pneumothorax.
50. Treatment tactics in tension (valve) pneumothorax.
51. Types of novocaine blockade in closed trauma of the thorax.
52. Methods of thoracic fixation in flotation rib fractures.
53. Treatment tactics for limited pneumothorax.
54. Early complications of closed thoracic injury.
55. Late complications of closed thoracic injury.
56. Clinical and radiological signs of small hemothorax.
57. Clinic of anterior mediastinal tumors.
58. Treatment of acute mediastinitis.
59. Surgical approaches during operations on mediastinal organs.
60. Diagnosis of superior vena cava syndrome.
61. Indications for surgical treatment of acute thrombophlebitis of superficial veins of the lower limbs.
62. Methods of surgical treatment of acute thrombophlebitis of superficial veins of the lower limbs.
63. Clinical characteristics of acute phlebothrombosis of the lower extremities.
64. Methods of conservative treatment of phlebothrombosis of the lower extremities.
65. Functional tests to determine the condition of comunicant vein valves of the lower extremities.
66. Functional tests to determine the condition of deep vein valves of the lower limbs.
67. Functional tests to determine the condition of surface vein valves of the lower limbs.
68. Clinical characteristics of acute thrombophlebitis of superficial veins of the lower extremities.
69. Surgical methods of treatment of acute thrombophlebitis of superficial veins of the lower limbs.
70. Conservative methods of treatment of acute thrombophlebitis of superficial veins of the lower extremities
71. Stages of Safenectomyi in varicose superficial veins of the lower extremities.
72. Clinical characteristics of varicose vein disease.
73. Clinical characteristic of pislythrombotic syndrome.
74. Causes of the development of Paget-Schretter syndrome.
75. Clinical characteristics of Paget-Schretter syndrome.
76. Treatment of Paget-Schretter syndrome.
77. Methods of surgical treatment of Lerish syndrome.
78. Anticoagulants, fibrinolytic and thrombolytic drugs, their dosage and features of their use.
79. Causes and reoperation in recurrence of varicose veins (superficial) of the lower extremities.

80. Methods of examination of the venous system of the lower extremities.
81. Causes of recurrence of varicose veins of the lower extremities after safenectomy and methods of their prevention.
82. Clinical characteristics of iliac femoral venous thrombosis, methods of treatment.
83. Methods of control of the blood coagulation system, their characteristics.
84. Indications for surgical treatment of varicose superficial veins of the lower extremities.
85. Contraindications for surgical treatment of varicose superficial veins of the lower extremities.
86. Risk factors in the pathogenesis of obliterating atherosclerosis of lower limb arteries.
87. Indications for surgical treatment of obliterating atherosclerosis of the main arteries of the lower extremities.
88. Contraindications for surgical treatment of obliterating atherosclerosis of the main arteries of the lower extremities.
89. Methods of surgical treatment of atherosclerotic lesions of lower limb arteries.
90. Methods of conservative treatment of obliterating atherosclerosis of lower limb arteries.
91. Early postoperative complications of surgical treatment of atherosclerotic lesions of lower limb arteries and methods of their prevention.
92. Definition and clinical characteristics of Lerish syndrome.
93. Complications of Obliterating Atherosclerosis of the Arteries of the Lower Limbs.
94. Methods of examination of the arterial system.
95. Conservative methods of treatment of obliterating endarteritis of the lower extremities.
96. Methods of surgical treatment of obliterating endarteritis of the lower extremities.
97. differential diagnosis of obliterating atherosclerosis and obliterating endarteritis of lower limb arteries.
98. Indications and contraindications for aortography.
99. Modern methods of aortoarteriography.
100. Methods to reduce cholesterol and lipoprotein concentrations in blood serum (Pharmacological, instrumental).
101. Causes of main artery embolism.
102. Causes and conditions of acute arterial thrombosis.
103. Classification of acute tissue ischemia in acute thrombosis and embolism of the main arteries according to Saveliev V.S.
104. Clinical characteristics of main artery embolism.
105. Clinical picture of acute main artery thrombosis.
106. Etiology, pathogenesis of obliterating endarteritis of the lower extremities.
107. Classification of Obliterative Endarteritis of the Lower Limbs with Fontan.
108. Clinical characteristics of embolism and acute thrombosis of the main arteries.
109. Differential diagnosis of embolism and acute thrombosis of the main arteries.
110. Surgical tactics and methods of surgical treatment of embolism and acute thrombosis of the main arteries.
111. Peculiarities of postoperative period management after surgical intervention for embolism and acute thrombosis of the main arteries.
112. Peculiarities of the clinical course of obliterating endarteritis of the lower extremities.
113. Differential diagnosis of obliterating endarteritis of the lower extremities with obliterating atherosclerosis.
114. Differential diagnosis of obliterating endarteritis of the lower extremities with diabetic angiopathy, Raynaud's syndrome, nonspecific cryoglobulinemia.
115. Indications for conservative treatment of obliterating endarteritis of the lower extremities.
116. Contraindications for conservative treatment of obliterative endarteritis of the lower extremities.
117. Principles of conservative treatment of obliterating endarteritis of the lower extremities
118. Indications and contraindications for surgical treatment of obliterating endarteritis of the lower extremities.
119. Contraindications for surgical treatment of obliterative endarteritis of the lower extremities.

120. Methods of surgical treatment of obliterating endarteritis of the lower extremities.
121. Rehabilitation of patients with obliterative endarteritis of the lower extremities.
122. Indications for conservative treatment, drugs to be used.
123. Etiology, pathogenesis of venous thrombosis of the lower extremities.
124. Conditions of thrombosis in the venous system.
125. Indications for surgical treatment in deep vein thrombosis of the lower extremities.
126. Principles of prescribing anticoagulant, thrombolytic, fibrinolytic therapy.
127. Control of clotting and anticoagulation systems.
128. Pathophysiological and pathanatomical mechanisms of pislaromphlebitis syndrome formation
129. Classification of intestinal obstruction in children.
130. The main clinical symptoms of idiopathic intussusception in children. 131. Give characterization of additional methods of diagnosis of intussusception in children.
132. Indications for conservative repair of intussusception in children.
133. Contraindications for conservative repair of intussusception in children.
134. Essence of conservative adjustment of intussusception in children.
135. Radiological signs of high and low intussusception.
136. Complications of intussusception, their prevention and principles of treatment.
137. The main causes, classification of postoperative adhesive intestinal obstruction.
138. Main pathogenetic factors of early postoperative adhesive intestinal obstruction.
139. Principles of conservative treatment of early postoperative adhesive intestinal obstruction. intestinal obstruction.
140. Main causes of spastic and paralytic intestinal obstruction.
141. The principles of preoperative preparation for mechanical intestinal obstruction. Criteria for the patient's readiness for the operation.
142. Peculiarities of the preoperative preparation for high and low intestinal obstruction.
143. Characteristics of the main medications used to restore the volume of circulating blood.
144. Bezoar as a cause of high intestinal obstruction. Clinical manifestations, methods of treatment.
145. Foreign bodies of the gastrointestinal tract in children. Clinical manifestations, diagnosis, possible complications.
146. Treatment tactics for foreign bodies of the gastrointestinal tract in children.
147. The post-burn stenosis of the esophagus and the pyloric part of the stomach as a cause of impaired patency of the digestive tract in children. Main causes, clinical manifestations.
148. Principles of treatment after burn stenosis of the esophagus and pyloric part of the stomach in children.
149. Characteristic clinical signs of bleeding from the upper digestive tract (esophagus, stomach, 12 duodenum).
150. Characteristic clinical signs of bleeding from the upper parts of the middle intestine (small intestine).
151. Typical clinical signs of bleeding from the lower sections of the SCC (rectum).
152. What is the cause of bleeding from esophageal varices? 153. What is the cause of bleeding in Meckel's diverticulum?
154. What is the cause of bleeding in intestinal intussusception?
155. What is the cause of bleeding during bowel turn?
156. What is portal hypertension, forms of portal hypertension?
157. What are the most common causes of portal hypertension?
158. Diagnostic methods for portal hypertension.
159. Characteristic features of portal hypertension in children.
160. Peculiarities of the Blackmore probe design and what it is used for. peculiarities of its installation in children.
161. Significance of Sandostatin for stopping GI bleeding in children.
162. Conservative and operative methods of interventions to stop bleeding at portal hypertension in children.

163. Causes of the pre-precine form of portal hypertension syndrome in children.
164. Methods of portosystemic shunting.
165. Causes of bleeding in necrotic ulcerative enterocolitis in neonates.
166. Causes of bleeding at polyposis of intestine in children, methods of diagnosis.
167. The causes of gastroesophageal reflux hemorrhage (hernia of the esophageal opening of the diaphragm, peptic structures, Barrett's esophagus).
168. True and false gastroesophageal hemorrhage, causes in children.
169. Peculiarities of pediatric oncology. General principles of diagnosis and treatment of malignant neoplasms in children.
170. Sacrococcygeal teratoma: definition, anatomical and morphological classification and clinical manifestations.
171. Diagnosis of sacrococcygeal teratoma (prenatal diagnosis, Therapeutic and physical treatment protocols for teratoma of the sacrococcygeal bone and sacrococcygeal branches.
172. The differential diagnosis of sacrococcygeal teratoma and meningocele.
173. Hemangioma: definition, classification, clinical manifestations.
174. Therapeutic management tactics in hemangioma in children.
175. Lymphangioma: definition, classification, clinical manifestations.
176. Methods of diagnostics and principles of treatment of lymphangiomas.
177. Dermoid cysts: definition, typical localization, clinical manifestations, principles of treatment.
178. Nephroblastoma (Wilms' tumor): definition, clinical manifestations, association with other embryogenesis disorders.
179. What laboratory and instrumental methods are used to diagnose nephroblastoma?
180. Neuroblastoma: definition, typical anatomical localization, clinical manifestations.
181. Principles of neuroblastoma diagnostics (diagnosis verification, diagnosis of primary diagnosis of primary focus, assessment of biological activity of tumor, diagnosis of possible metastases). Principles of neuroblastoma treatment.
182. Laboratory and instrumental methods of diagnosis, principles of treatment of malignant bone tumors.
182. Types and clinical manifestations of benign pigmented skin neoplasms.
183. Risk factors of melanoma development, its early and late clinical signs.
183. Mechanism of occurrence and clinical manifestations of testicular torsion in neonates and infants (ekstaravaginalna form of torsion).
184. Mechanism of occurrence and clinical manifestations of testicular torsion in older children (intravaginal form of torsion).
185. Diagnosis and treatment principles of testicular torsion in children. Clinical manifestations, additional methods of examination and principles of treatment of Hydatid Morgania peracute in children.
186. The main etiological factors and clinical manifestations of acute nonspecific orchoepididymitis.
187. Diagnosis and principles of treatment of acute nonspecific orchoepididymitis in children.
188. The complications of surgical diseases of the scrotal organs, their prevention and treatment principles.
189. Trauma of the kidney: classification, clinical manifestations. Trauma of the bladder: mechanism, classification.
190. Features of the pathogenesis, clinical manifestations and diagnostics of urolithiasis in children.
191. Principles of conservative and surgical treatment of urolithiasis in children.
192. Polytrauma in children: definition, epidemiology and pathogenesis in childhood.
193. Classification of traumatic (hypovolemic) shock by severity. Diagnostic criteria I-III degrees of traumatic shock.
194. Treatment tactics in traumatic (hypovolemic) shock of degree I.
195. Treatment tactics for traumatic (hypovolemic) shock of II degree.

196. Treatment tactics for traumatic (hypovolemic) shock of grade III.
197. Epidemiology, mechanism of closed abdominal trauma in children. The main clinical manifestations and traditional methods of diagnosis.
198. Mechanism and clinical manifestations of pancreatic trauma in children. Treatment of traumatic pancreatitis.
199. Etiology, mechanism and clinical manifestations of abdominal cavity injuries. Diagnosis of abdominal cavity injuries.

"0" version of the examination ticket

Petro Mohyla Black Sea National University

"Approve."

Head of the Department of Surgical Disciplines
 _____ Doctor of Medical Sciences,
 Professor Tarasenko O.N.

Discipline: Surgery (including
 pediatric surgery, neurosurgery)
 Specialty 222 - "Medicine"

Option No. 0

Tactics of treatment of complicated acute lung abscess. (The maximum number of points is 20.)

2. Indications for surgical treatment of acute thrombophlebitis of superficial veins of the lower extremities. (The maximum number of points is 20.)

Characteristic clinical signs of bleeding from the upper digestive tract (esophagus, stomach, 12 duodenum). (Maximal number of points is 20.)

4. A 44-year-old female patient complains of a severe shingling pain in the upper abdomen, nausea, repeated vomiting, abdominal bloating. The disease began after ingestion of spicy and fatty foods. Her condition is severe, skin and mucous membranes are pale, dry, face is hyperemic. Pulse - 100 beats per 1 min, rhythmic, blood pressure - 100/60 mm Hg. The tongue was dry and covered with gray plaque. The abdomen is moderately swollen, soft, painful in the epigastric region. Symptoms of peritoneal irritation are vaguely defined. Intestinal peristalsis is impaired. The gallbladder is not palpable.

Your diagnosis?

A. Acute intestinal obstruction;

B. Acute gastritis;

C. Acute cholecystitis.

D. Acute pancreatitis.

E. Peritonitis.

(The maximum number of points is 20.)

The sum of correct answers is 80 points.

Minutes of the meeting of the Department of Surgical Disciplines

No. __ of " __ " _____ 2021

6. Assessment criteria and means of diagnostics of learning outcomes

methods of control

- Questioning (testing of theoretical knowledge and practical skills).
- Test control.
- Writing reviews of scientific literature (abstracts), performance of individual assignments, their defense.

Current control. Check in practical classes of theoretical knowledge and assimilation of practical skills, as well as the results of independent work of students. Supervised by teachers in accordance with the specific purpose of the curriculum. Assessment of the level of students'

training is carried out by: questioning students, solving and analysis of situational tasks and test tasks, interpretation of the results of clinical-instrumental and clinical-laboratory examinations, control of assimilation of practical skills.

Intermediate control. To check the students' ability to use for clinical-diagnostic analysis received theoretical knowledge and practical skills on all studied topics, as well as the results of students' independent work. Carried out at the last class on the topic by passing the practical skills, solving situational tasks and testing.

The final control work (FCW) is carried out at the end of studying all the topics of the block at the last, controlling, class on the block.

In order to assess the results of training in surgery final control in the form of exam, which is recommended for academic disciplines, is part of the integrated test examinations EBCI and "Croc-2".

The students who attended all the lectures and classes included in the curriculum, did full-time self-study and collected a minimum number of points during studying - 70 points in the first block and 40 points in the second one, are allowed to have an exam.

Distribution of points awarded to students

The maximum number of points for a student's current learning activities in the first block is 120. Accordingly, in the first block the maximum score for each topic is 120 points: 10 topics = 12 points. The minimum score for each topic is 70 points: 10 topics = 7 points.

On PKR No. 1 a student can receive a maximum of 80 points. The PKR is considered enrolled if a student receives at least 50 points.

In the second block, the maximum number of points for a student's ongoing learning activities is 80. Accordingly, in the second block, the maximum score for each topic is 80 points: 9 topics = 8.9. The minimum score for each topic is 40 points: 9 topics = 4.5 points.

On PKR No. 2 a student can receive a maximum of 40 points. The PKR is considered enrolled if a student receives at least 30 points.

A student may receive a maximum of 80 points in the examination. A student is considered to have passed the exam if he/she scores at least 50 points. For the allocation of points in the examination, see the example of the examination ticket above.

Assessment of student performance

Type of activity (tasks)	Maximum number of points
Block No. 1	
Topics of practical sessions 1 to 10	12 points for each of the 10 topics
Together with the 10 themes	120
Final control work (FCW) No. 1	80
Together with Block 1	200
Block No. 2	
Topics of practical sessions 11 to 19	8.9 for each of the 9 topics
Together with the 9 themes	80
PKR NO. 2	40
Together with Block 2	120
exam	80
Together with Block 2 and the exam	200

evaluation criteria

Students' knowledge is assessed from both theoretical and practical training according to the following criteria:

11-12 points for a topic in the first unit, 8-8.9 points for a topic in the second unit, 71-80 points in PKR No. 1, 38-40 points in PKR No. 2 and 71-80 points in the exam ("excellent" on the national scale, and on the ECTS scale) - the student correctly answers 90-100% of the tests of the Step-2 format. Correctly, clearly logically, and completely answers all standardized questions of the current topic, including questions from the lecture course and independent work or the test ticket. Closely relates theory to practice and correctly performs practical work and writes a conclusion on the results obtained. Reads laboratory results fluently, solves situational tasks of increased complexity, is able to summarize the material, owns the methods of laboratory research in the required volume.

9-10 points for a topic in the first unit, 6-7 points for a topic in the second unit, 61-70 points on PCR #1, 35-37 points on PCR #2 and 61-70 points on the exam ("good" on the national scale, B and c on the ECTS scale)-the student correctly answered 70-89% of the Crock-2 tests. Correctly and substantially answers standardized questions of the current topic, lecture course, and independent work or examination ticket. Demonstrates performance (knowledge) of practical skills. Correctly uses theoretical knowledge when solving practical tasks. Is able to solve light and average complexity of situational tasks. Possesses the necessary practical skills and techniques to perform them to the extent exceeding the necessary minimum.

7-8 points for the topic in the first unit, 4.5-5 points for the topic in the second unit, 50-60 points in PKR № 1, 30-34 points in PKR № 2 and 50-60 points in the exam ("satisfactory" on a national scale, D and E on the ECTS scale) - the student correctly answered 50-69% of the test format Step-2. Incompletely, with the help of additional questions, answers standardized questions of the current activity, lecture course and independent work or examination ticket. Cannot independently construct a clear, logical response. When answering and demonstrating practical skills, the student makes mistakes. Student solves only the easiest problems, possesses only the required minimum of research methods.

Less than 7 points for the topic in the first unit, 4.5 points for the topic in the second unit, 50 points in PKR № 1, 30 points in PKR № 2 and 50 points in the exam ("unsatisfactory" on a national scale, Fx and F on the ECTS scale) - the student correctly answered less than 50% of the tests of the Step-2 format. Unaware of the material of the current topic or questions of the examination ticket, cannot construct a logical response, does not answer additional questions, does not understand the content of the material. When answering and demonstrating practical skills makes significant, gross errors.

6. LITERATURE

7.

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4. L.Y. Kovalchuk, Y.P. Spizhenko, V.F. Sayenko et al. Hospital Surgery. Ternopil: Ukrmedkniga, 1999.
5. Kovalchuk L.Y., Venger I.K., Goshinsky V.B. Clinical phlebology: Textbook. - Ternopil: TSMU, 2008 - 288 p.
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7. Materials for preparing students for practical classes and lectures
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