

MINISTRY OF HEALTH OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY

Department of Surgery №3

CONFIRMED by

Acting vice-rector for scientific and pedagogical work
Svitlana KOTIUZHYNKA

September 1, 2022



**WORKING PROGRAM OF POLYCLINIC MEDICAL PRACTICE.
"SURGERY. (THORACIC, CARDIAC, ENDOCRINE SURGERY)».**

Level of higher education: second (master's degree)

Field of knowledge: 22 "Health care"

Specialty: 222 "Medicine"

Educational and professional: Medicine

2022–2023

The work program was compiled on the basis of the educational and professional program "Medicine" for the training of specialists of the second (master's) level of higher education in the specialty 222 "Medicine" of the branch of knowledge 22 "Health", adopted by the Academic Council of ONMedU (minutes No. 9 dated June 23, 2020))

Authors:

MD, Professor V. G. Bondar, MD, Professor Chetverikov S. G., MD, Professor O. F. Dzygal, MD, Associate Professor V. V. Kryzhanivskii, PhD, MD, Associate Professor E. A. Kvasnevskii, PhD, MD, Associate Professor Chehlov M. V., PhD, MD, Assistant. Kirillova O. F.

The working program is approved at the meeting of the Department of Surgery No. 3
Minutes No. 9 dated June 27, 2022.

Head of the department  MD, Professor Bondar V. G.

Approved by the guarantor of
the educational and professional program  Valeriia MARICHEREDA

Approved by the subject cyclical methodical commission for surgical disciplines of ONMedU
Minutes No. 6 dated "30" of June 2022.

Head of the subject cycle methodical commission for surgical disciplines
 MD, Professor Mishchenko V. V.

Revised and approved at the meeting of the department _____

Minutes No. ___ of "___" _____ 20__

Head of the department _____ MD, Professor Bondar V. G.

Revised and approved at the meeting of the department _____

Minutes No. ___ of "___" _____ 20__

Head of the department _____ MD, Professor Bondar V. G.

1. Description of the discipline

Name of indicators	Field of knowledge, specialty, specialization, level of higher education	Characteristics of the practice
The total number of: Credits of ECTS: 1 Hours: 30	Field of knowledge 22 "Health care" <hr/> Specialty 222 "Medicine" <hr/> Level of higher education second (master's degree)	<i>Full-time (day) study</i>
		<i>Compulsory educational component</i>
		<i>Course: 5</i>
		<i>Semesters IX - X</i>
		<i>Lectures (0 hours)</i>
		<i>Seminars (0 hours)</i>
		<i>Practical classes (12 hours)</i>
		<i>Laboratories (0 hours)</i>
		<i>Independent work (18 hours)</i>
		<i>including individual tasks (0 hours)</i>
	<i>Final control form- Dif. credit test</i>	

Note. The hours corresponds to the educational program of the curriculum.

2. The purpose and tasks of the practice — competencies, program learning outcomes

The purpose is to master the knowledge and to form the elements of the professional competencies, methods of diagnosis, treatment and prevention of surgical diseases, primarily the most common and urgent ones and practical skills in surgery on the basis of the specialized modern scientific achievements.

The tasks of the practice are the following:

- determine methods of diagnosis, algorithm of conservative and operative treatment of surgical diseases of the digestive system, cardiovascular and respiratory systems, depending on the occurrence and occurrence of features of their clinical manifestations in outpatient department;
- learn the differential diagnosis of diseases of the organs of the abdominal cavity, extraperitoneal space and chest;
- determine the principles of postoperative treatment and rehabilitation of patients with surgical pathology;
- to identify modern methods of diagnosis and treatment, postoperative supervision and rehabilitation of surgical diseases in outpatient department ;
- learn risk factors for complications of diseases of the digestive system, cardiovascular and respiratory systems;
- interpret the results of laboratory and instrumental research of the digestive system, cardiovascular and respiratory systems;
- demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination in surgery;
- to carry out a prognosis of life and working capacity in case of surgical diseases of the digestive system, cardiovascular and respiratory systems;
- interpret the general principles of treatment, rehabilitation and prevention of the most common surgical diseases of the digestive system, cardiovascular and respiratory systems;

- demonstrate the ability to maintain medical documentation in the clinic of surgical diseases;
- provide emergency medical care for urgent diseases of the digestive system, cardiovascular and respiratory systems.

The process of studying the practice is aimed at forming elements of the following competencies:

- **General (GC):**

GC 3. Ability to apply knowledge in practical situations

GC 4. Knowledge and understanding of the subject area and understanding of professional activity

GC 5. Ability to adapt and act in a new situation

GC 6. Ability to make informed decisions

GC 7. Ability to work in a team

GC 12. Determination and perseverance in the tasks and responsibilities taken

- **Special (SC):**

SC1. Ability to collect patient medical information and analyze Clinical data

SC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results

SC3. Ability to establish a preliminary and Clinical diagnosis of the disease

SC4. The ability to determine the necessary mode of work and rest in the treatment and prevention of diseases

SC5. The ability to determine the nature of nutrition in the treatment and prevention of diseases

SC6. The ability to determine the principles and nature of the treatment and prevention of diseases

SC7. Ability to diagnose emergency conditions

SC8. Ability to determine tactics and provide emergency medical care

SC9. Ability to conduct medical and evacuation activities

SC10. Ability to perform medical procedures

SC11. The 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 moral responsibility

SC13. Ability to carry out sanitary, hygienic, and preventive measures

SC14. Ability to plan and implement preventive and anti-epidemic measures for infectious diseases

Program learning outcomes (PLO):

PLO3. Specialized conceptual knowledge, including scientific achievements in the field of health, is the basis for research, critical thinking about problems in the field of medicine and related to interdisciplinary problems.

PLO4. Isolate and identify the leading clinical symptoms and syndromes (according to list 1); according to standard methods, using preliminary data from the patient's history, data from the patient's examination, knowledge about the person, his organs and systems, to establish a preliminary clinical diagnosis of the disease (according to list 2).

PLO5. Collect complaints, anamnesis of life and disease, evaluate the patient's psychomotor and physical development, the state of the organs and systems of the body, evaluate information about the diagnosis based on the results of laboratory and instrumental studies (according to list 4), taking into account the patient's age.

PLO6. Establish a final clinical diagnosis by making an informed decision and analyzing the obtained subjective and objective data from a clinical, additional examination, conducting

differential diagnostics, observing the relevant ethical and legal standards, under the supervision of a medical director in a healthcare institution (according to list 2).

PL07. Assign and analyze additional (mandatory and optional) examination methods (laboratory, functional and / or instrumental) (according to list 4), patients with diseases of organs and body systems for differential diagnosis of diseases (according to list 2).

PL08. Determine the main clinical syndrome or symptom that determines the severity of the condition of the victim / victim (according to list 3) by making an informed decision on the person's condition under any circumstances (in health care, outside it), incl. in conditions of emergency and combat operations, in the field, in conditions of lack of information and limited time.

PL09. Determine the nature and principles of treatment of patients (conservative, surgical) with diseases (according to list 2), taking into account the age of the patient, in healthcare conditions, outside it and at the stages of medical evacuation, incl. in the field, on the basis of a preliminary clinical diagnosis, observing the relevant ethical and legal standards, by making an informed decision on existing algorithms and standard schemes, if it is necessary to expand the standard scheme, be able to substantiate personalized recommendations under the supervision of a medical director in a medical institution.

PL010. Determine the necessary mode of work, rest and nutrition based on the final clinical diagnosis, observing the relevant ethical and legal standards by making an informed decision on existing algorithms and standard schemes.

PL015. Organize the provision of medical care and medical evacuation measures to the population and military personnel in emergency situations and military operations, incl. in the field.

PL017. Performing medical manipulations (according to list 5) in a medical institution, at home or at work based on a preliminary clinical diagnosis and / or indicators of the patient's condition by making an informed decision, observing the relevant ethical and legal standards.

PL018. Determine the state of functioning and limitations of a person's life and the duration of disability with the execution of relevant documents, in the conditions of a healthcare institution based on data on the disease and its course, the characteristics of a person's professional activity, etc. Maintain medical documentation for the patient and the contingent of the population on the basis of regulatory documents.

PL019. Plan and implement a system of anti-epidemic and preventive measures for the emergence and spread of diseases among the population.

PL024. Organize the necessary level of individual security (own and those of whom he cares) in the event of typical dangerous situations in the individual field of activity.

PL030. Determine the tactics of managing persons subject to dispensary supervision (children, pregnant women, workers whose professions provide for mandatory dispensary examination)

As a result of studying the practice, the student of higher education must:

— **know:**

- modern concepts of domestic and foreign theoretical and practical surgery;
- basic principles of organizing surgical care for the population of Ukraine;
- basic principles of organizing surgical care for the population of Ukraine.
- clinical and laboratory and additional methods of diagnosis of surgical pathology of the body;
- etiology, pathogenesis, clinic, diagnosis and methods of treatment of surgical diseases (within the curriculum);

- etiological, pathogenetic factors, clinical manifestations and diagnosis of emergency conditions;
- emergency surgical care tactics;
- organization of medical evacuation measures

— **be able:**

- demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination in general surgery;
- determine the most common clinical symptoms and syndromes in the clinics of surgical diseases;
- to analyze the results of examination of dental patients with general surgical pathology;
- apply methods of statistical analysis of medical and biological data;
- carry out basic methods of general clinical examination of the patient (interview, examination, palpation, percussion, auscultation), determine a certain amount of additional research and analyze the obtained data to establish a preliminary diagnosis;
- perform general medical manipulations (bandages, injections, washing of the stomach and intestines, stopping bleeding, transport and medical immobilization for dislocations and fractures of bones, local infiltration and conduction anesthesia, transfusion of blood and blood substitutes) and decide on the issue of referring the patient to a specialist ;
- provide the necessary assistance in case of short-term loss of consciousness, collapse, shock, coma, allergic reactions, asphyxia, acute abdomen, trauma, bleeding, burns, frostbite;
- carry out resuscitation measures in terminal conditions and refer patients to a specialized department;

3. Content of the practice

Theme 1. Wounds.

Definition. Classification. Stages of the wound process. Classification of purulent infection of soft tissues. Principles of treatment of purulent wounds. Purulent diseases of the skin and subcutaneous tissue, their diagnosis and treatment in a polyclinic. Purulent inflammation of cellular spaces. Features of the course and principles of treatment of purulent infection of the soft tissues of the face. Clinical features and treatment of inflammatory processes in patients with diabetes mellitus. Methods of surgical operations and drainage of purulent voids in a polyclinic. Prevention of inflammatory diseases of soft tissues.

Theme 2. Burns, electrical trauma, radiation injuries, frostbite.

Burn classification. Etiology of burn injuries, significance of predisposing factors. The mechanism of local and general changes in the body during burns, including chemical and electrical injuries. Diagnosis and treatment of different periods of burn disease. The Franco coefficient and its use. The value of determining the area of the burn. Complication of burn disease, its treatment, prevention. Classification of frostbite and general hypothermia of the body. Clinic and diagnosis of frostbite. First aid for frostbite and general hypothermia of the body. Local and general treatment of frostbite and general hypothermia of the body. Features of electrical injury (clinic, diagnosis, course, first aid, treatment).

Theme 3. Acute purulent diseases of soft tissues.

Furuncle, carbuncle, hydradenitis, abscess, phlegmon, mastitis, erysipelas, lymphangitis, lymphadenitis, paraproctitis. Etiology, pathogenesis, diagnosis. Features of the clinical course. Differential diagnosis. Specific research methods. Methods of conservative and surgical

treatment in a polyclinic.

Theme 4. Necrosis. Gangrene. Ulcers. Fistulas.

Classification, definition, pathomorphology, clinical picture, course, complications, treatment. Etiology, pathogenesis, diagnosis. Features of the clinical course. Differential diagnosis. specific research methods. Methods of conservative and surgical treatment in a polyclinic.

Theme 5. Acute anaerobic (clostridial and non-clostridial) infection.

Emphysematous, edematous-toxic, phlegmonous, putrefactive. Classification, Etiology, pathogenesis, diagnosis. Features of the clinical course. Differential diagnosis. Specific research methods. Methods of conservative and surgical treatment of polyclinics.

4. The structure of the educational practice

Themes	Number of hours					
	Total	including				
		Lectures	seminars	practical classes	laboratories	Independent work
Theme 1. Wounds. Definition. Classification. Wound process. Treatment.	5			2		3
Theme 2. Burns, electrical trauma, radiation injuries, frostbite.	5			2		3
Theme 3. Acute purulent diseases of soft tissues furuncle, carbuncle, hydradenitis, abscess,	5			2		3
Theme 4. Necrosis. Gangrene. Ulcers. Fistulas.	5			2		3
Theme 5. Acute anaerobic (clostridial and non-clostridial) infection: emphysematous, edematous-toxic, phlegmonous, putrefactive.	5			2		3
Differential credit test.	5			2		3
<i>Individual task</i>				-		-
Total hours	30			12		18

5. LECTURES ARE NOT PROVIDED BY THE CURRICULUM

5.2.Seminar classes are not provided

5.3. Themes of practical classes

№	Theme	hours
1	Wounds. Definition. Classification. Wound process. Treatment.	2
2	Burns, electrical trauma, radiation injuries, frostbite.	2
3	Acute purulent diseases of soft tissues furuncle, carbuncle, hydradenitis, abscess, phlegmon, mastitis, erysipelas, lymphangitis, lymphadenitis, paraproctitis.	2
4	Necrosis. Gangrene. Ulcers. Fistulas.	2
5	Acute anaerobic (clostridial and non-clostridial) infection: emphysematous, edematous-toxic, phlegmonous, putrefactive.	2
	Differential credit test.	2
	Total	12

5.4.Laboratory classes are not provided

6. Independent work

№ r/п	Theme /TYPES OF TASKS	hours
1	Preparation for practical training	10,0
2	Mastering the practical skills given in the student's practical training plan	8,0
	Total hours	18,0

7. Teaching methods

Practical classes: conversation, role-playing games, solving clinical situational problems, practicing patient examination skills, practicing manipulation skills according to list 5, instruction and practicing skills on simulation dummies, training exercises on differential diagnosis of the most common diseases.

Individual work: independent work with the recommended basic and additional literature, with electronic information resources, independent work with the bank of test tasks, independent mastering of algorithms of communication with patients.

8. Forms of control and assessment methods (including criteria for evaluating learning outcomes)

Ongoing control:

oral control, testing, assessment of performance of skills, assessment of communication skills during role-playing, solving situational clinical tasks, assessment of activity in class.

Final control Credit Test..

Assessment of the ongoing learning activity at the practical class:

- Assessment of theoretical knowledge on the theme:
 - methods: individual survey on the theme, participation of the students in the discussion of problem situations; assessment of performance of tests on the theme;
 - the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2.
- Assessment of skills and manipulations on the subject of the lesson:
 - methods: assessment of the correctness of the performance of skills

- the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2.
3. Assessment of work with a patient on the subject of the class:
- methods: assessment of: a) communication skills of communicating with the patient and his parents, b) the correctness of prescribing and evaluating laboratory and instrumental studies, c) compliance with the differential diagnosis algorithm, d) substantiation of the clinical diagnosis, e) drawing up a treatment plan;
 - the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2.

The grade for one practical session is the arithmetic average of all components and can only have a whole value (5, 4, 3, 2), which is rounded according to the statistical method.

9 Criteria of ongoing assessment at the practical class

Score	Assessment criterion
«5»	The applicant is fluent in the material, actively participates in the discussion and solution of a situational Clinical problem, confidently demonstrates practical skills when examining a sick child and interpreting data from Clinical , laboratory and instrumental studies, expresses his opinion on the topic of the lesson, and demonstrates Clinical thinking.
«4»	The applicant has a good command of the material, participates in the discussion and solution of a situational Clinical problem, demonstrates practical skills when examining a sick child and interpreting data from Clinical , laboratory and instrumental studies with some errors, expresses his opinion on the topic of the lesson, and demonstrates Clinical thinking.
«3»	The applicant does not have enough knowledge of the material, hesitantly participates in the discussion and solution of a situational Clinical problem, demonstrates practical skills when examining a sick child and interpreting Clinical , laboratory and instrumental data with significant errors.
«2»	The applicant does not own the material, does not participate in the discussion and solution of a situational Clinical problem, does not demonstrate practical skills when examining a sick child and interpreting data from Clinical , laboratory and instrumental studies.

The applicant is admitted to a credit subject to the fulfillment of the requirements of the educational program and in the event that he received at least 3.00 points for the ongoing educational activity.

Evaluation of learning outcomes during the final control

Content of the assessed activity	Number of points
Answer to theoretical questions	2
Solution of test tasks KROK-2	1
Skills	2

Criteria for evaluating the learning outcomes of applicants for education according to diff. credit test.

Score	Assessment criterion
Excellent «5»	The applicant for education correctly, accurately and completely completed all the tasks received, clearly and logically answered the questions posed. Thoroughly and comprehensively knows the content of theoretical issues, is fluent in professional and scientific terminology. Thinks logically and builds an

	answer, freely uses the received theoretical knowledge in the analysis of practical problems. When solving a Clinical problem, he correctly interpreted the anamnesis data, the results of Clinical , laboratory and instrumental studies, correctly answered all the questions posed and convincingly substantiated his point of view, could offer an alternative solution to individual issues. When solving a practical problem, he correctly demonstrated the implementation of practical skills, accurately adhered to the algorithm for their implementation.
Good «4»	The applicant completed all the tasks received quite fully, clearly and logically answered the questions posed. Sufficiently deep and comprehensive knowledge of the content of theoretical issues, owns professional and scientific terminology. Thinks logically and builds an answer, uses the acquired theoretical knowledge in the analysis of practical problems. But when presenting some questions, there is not enough depth and argumentation, he makes minor mistakes that are eliminated by the applicant himself when the examiner points them out. When solving a Clinical problem, he made minor errors or inaccuracies in the interpretation of the anamnesis data, the results of Clinical , laboratory and instrumental studies, answered all the questions without significant errors, fully substantiated his point of view, however, the proposal of an alternative variant caused difficulty. When solving a practical problem, he made minor errors in the algorithm and technique for performing the skill, corrected at the direction of the teacher.
Satisfactorily «3»	The applicant for education incompletely completed all the tasks received, the answers to additional and leading questions are fuzzy, vague. Possesses the bulk of theoretical knowledge, uses professional and scientific terminology inaccurately. Experiencing significant difficulties in constructing an independent logical answer, in applying theoretical knowledge in the analysis of practical problems. There are significant errors in the answers. When solving a Clinical problem, he interpreted the anamnesis data, the results of Clinical , laboratory and instrumental studies with errors, did not know individual details, made inaccuracies in answering questions, did not correctly substantiate his answers and interpreted the wording, experienced difficulties in completing tasks and offering alternatives. When solving a practical problem, he made significant errors in the algorithm and technique for performing the skill.
Unsatisfactory «2»	The applicant for education did not complete the tasks received, in most cases did not answer the additional and leading questions of the examiners. He did not master the main body of theoretical knowledge, revealed a low level of professional and scientific terminology. Answers to questions are fragmentary, inconsistent, illogical, cannot apply theoretical knowledge in the analysis of practical problems. There are a significant number of gross errors in the answers. When solving a Clinical problem, he could not interpret the obtained data of the anamnesis, the results of Clinical , laboratory and instrumental studies, answer the questions posed or made significant errors in the answers; could not substantiate his decisions or did it not convincingly. Didn't offer any alternatives. When solving a practical problem, he did not demonstrate or made gross mistakes and inaccuracies in the algorithm and technique of performing the skill.

10. Distribution of points, obtained by the applicant

The average grade in the practice is converted to the national grade and converted to points on a multi-point scale (200-point scale).

Conversion of traditional assessment into 200-point is carried out by the information and technical department of ONMedU by the special program by the formula:

Average score (current academic performance) x 40.

Conversion table of traditional to multi-point

National score for the practice	The sum of scores for the practice
Excellent («5»)	185 – 200
Good («4»)	151 – 184
Satisfactory («3»)	120 – 150
Unsatisfactory («2»)	Less than 120

According to the ECTS rating scale, applicants achievements in educational practice, who study on the same course of one specialty, according to their scores, are assessed by means of rank, namely:

Conversion of the traditional evaluation and and ECTS scores

Score on the ECTS scale	Statistical indicator
A	The best 10% students
B	Next 25% students
C	Next 30% students
D	Next 25% students
E	Next 10% students

10. Methodological support

- Working program on the practice
- Syllabus
- Methodological recommendations for the practical classes
- Methodological recommendations for the individual work
- Situational tasks
- Scenarios of role-playing games (if necessary)
- An electronic bank of test tasks by subsection of practice

11. Questions for the final control

1. Asepsis and antiseptics. Types of antiseptics.
2. Preparation of the surgeon's hands and the operating field. Sterility control. Rules for working in the operating room and dressing room.
3. Examination of a surgical patient. Complaints, history, examination, palpation, percussion and auscultation. Instrumental examination methods in surgery. Preliminary, clinical and final diagnosis.
4. Local, conduction and spinal anesthesia. Indications and contraindications. Means and methods of carrying out. Complications.
5. Surgical operation, its types. Indications for surgery. Operational risk, degree of risk. Planned and emergency operations. Content and tasks of the pre- and postoperative period.
6. Surgical patient care as an integral part of treatment. Transportation of patients. Prevention of asphyxia, bleeding, bedsores. Nutrition for postoperative patients.

7. Caring for a surgical patient after operations on the head, neck, chest, abdomen, limbs. Drainage care. Active and passive drainage, Bulau drainage. Prevention of postoperative complications.
8. Bleeding. Classification, clinical picture, consequences. Blood loss, severity of blood loss.
9. Stopping bleeding is temporary and permanent. Indications and contraindications.
10. Blood groups, Rh factor. Components and blood products.
11. Indications and contraindications for blood transfusion. Blood compatibility, blood transfusion technique. Blood transfusion reactions and complications.
12. Blood substitutes: crystalloids and colloids. Infusion-transfusion therapy, determination of the infusion content.
13. Emergency conditions: fainting, collapse, stupor, coma, asphyxia, drowning, clinical death, brain death. Definition, clinical picture, treatment.
14. Cardiopulmonary resuscitation: restoration of airway patency, breathing, blood circulation. Algorithm for its implementation by one and two resuscitators.
15. Shock. Definition, etiology, pathogenesis, clinical picture. The severity of the shock. Shock treatment.
16. Wounds. Classification, clinical picture. Morphology of the wound process. Healing wounds. Clean and infected wounds, wound infection.
17. Treatment of wounds. Primary and secondary wound debridement. Wound closure primary and primary delayed, secondary sutures. drug treatment.
18. Thermal damage (burns, frostbite, electrical injuries). Classification. Damage severity: Determination of the depth and area of damage. Clinical picture, course, complications. First aid, treatment.
19. Mechanical injuries (contusion, concussion, sprains and ruptures, dislocations, fractures). Classification, definitions, pathomorphology, clinical picture, course, complications. First aid, rules of immobilization, treatment.
20. Acute surgical infection: furuncle, carbuncle, hydradenitis, abscess, phlegmon, erysipelas, lymphangitis, lymphadenitis, bursitis, purulent arthritis, osteomyelitis. Classification, definitions, pathomorphology, clinical picture, course, complications, treatment.
21. Purulent inflammation of the hand and fingers. Panaritiums and phlegmons. Classification, definitions, pathomorphology, clinical picture, course, complications, treatment.
22. Acute anaerobic (clostridial and non-clostridial) infection: emphysematous, edematous-toxic, phlegmonous, putrefactive. Classification, pathomorphology, clinical picture, course, complications, treatment.
23. Acute and chronic specific infection. Tetanus, diphtheria, tuberculosis, actinomycosis. Classification, pathomorphology, clinical picture, course, complications, treatment. Tetanus immunization.
24. AIDS and associated surgical problems.
25. Sepsis. Classification, definitions, etiology, pathogenesis, clinical picture, course, examination and diagnosis, complications. Complex treatment of sepsis.
26. Necrosis. Gangrene. Ulcers. Fistulas. Classification, definitions, pathomorphology, clinical picture, course, complications, treatment.

12. LIST OF PRACTICAL SKILLS FOR THE FINAL CONTROL

1. Evaluation of anamnesis data, physical examination: examination of the patient, palpation, percussion, auscultation, rectal examination
2. Analysis of the results of laboratory and instrumental studies (X-ray, ultrasound, CT, fibrogastroduodenoscopy, colonoscopy)
3. A method for determining the main symptoms characteristic of acute surgical diseases of the lungs and pleura, biliary tract, pancreas, esophagus, stomach, intestines, appendicular process, samples and symptoms in pathology of veins and arteries.
4. Perform tests to identify the failure of the valves of the superficial veins, the patency of the deep veins, and the failure of the valves of the perforating veins.
5. Demonstrate the ability to conduct research on functional tests in case of obliterating endarteritis of the vessels of the lower extremities.
6. Evaluation of phlebo-, aorto-gram
7. Perform local, conduction and infiltration novocaine anesthesia..
8. Temporary control of bleeding.
9. Central venous pressure measurement technique.
10. Application of a tourniquet for open injuries of the main arteries and veins of the extremities
11. Applying a sealed bandage for penetrating chest injuries..
12. Wound tamponade according to Mikulich..
13. Intercostal nerve block
14. Outpatient card preparation
15. Registration of a message about a patient with a malignant tumor
16. Method of opening of subcutaneous paronychia
17. Tendon felon opening technique
18. Bone felon opening technique
19. Surgical tactics for paronychia
20. Palpation of lymph nodes
21. Opening of post-injection abscess
22. Permanent control of bleeding
23. Examination of patients and prevention of complications in diabetic foot
24. Opening paronychia
25. Opening of hidradenitis

12. Recommended literature.

Basic .

1. Gozie Offiah, Arnold Hill//RCSI Handbook of Clinical Surgery for Finals. 4th ed. 2020
2. Цигикало О. В. Clinical Anatomy and Operative Surgery=Клінічна анатомія і оперативна хірургія.. Підручник для ВМНЗ IV р.а.: Рекомендовано МОЗ: 2020/ 528 с.
3. Березницький Я. С. (за ред.) General Surgery=Загальна хірургія. — 2-ге вид. Підручник для ВМНЗ III—IV р.а.: Рекомендовано ДУ“Центр.метод.каб.з вищої мед.освіти МОЗ України”: 2020/ 328 с.
4. Christian de Virgilio, Areg Grigorian//Surgery: A Case Based Clinical Review. 2nd Ed. 2020
5. General Surgery=Загальна хірургія: Підручник для мед. ун-тів., інст., акад. Затверджено МОН / За ред. С.Д. Хіміча, М.Д. Желіби. — К., 2019. — 536 с.
6. The Bethesda handbook of clinical oncology / editors, Jame Abraham, James L. Gulley. Fifth

Edition. Copyright © 2019 Wolters Kluwer

7. JANE C. ROTHROCK// Alexander's Care of the Patient in Surgery. 16th Ed. 2019

Additional .

1. Hamilton Bailey's Physical Signs: Demonstrations of Physical Signs in Clinical Surgery, 19th Edition Paperback – Import, by John S.P Lumley (Author), Anil K. D'Cruz (Author), Jamal J. Hoballah (Author), Carol E.H. Scott-Connor (Author) 25 Feb 2016
2. Schwartz's Principles Of Surgery With DVD Hardcover – 2014 by F. Charles Brunicaudi (Author), Dana K. Andersen (Author), Timothy R. Billiar (Author), David L. Dunn (Author), John G. Hunter (Author), & 2 More

13. Electronic information resources

1. <http://moz.gov.ua> – Міністерство охорони здоров'я України
2. www.ama-assn.org – Американська медична асоціація / American Medical Association
3. www.who.int – Всесвітня організація охорони здоров'я
4. www.dec.gov.ua/mtd/home/ - Державний експертний центр МОЗ України
5. <http://bma.org.uk> – Британська медична асоціація
6. www.gmc-uk.org - General Medical Council (GMC)
7. www.bundesaerztekammer.de – Німецька медична асоціація
8. <http://medforum.in.ua/partners-> Асоціація хірургів України
9. <http://endoscopy.com.ua/> - Асоціація ендоскопічних хірургів України
10. <http://thoracic-surgery.com.ua/> - Асоціація торакальних хірургів України
11. <https://youcontrol.com.ua/> - Асоціація судинних хірургів України