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**MINISTRY OF HEALTH OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY**

Department of Surgery with Postgraduate Education

CONFIRMED BY

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Vice-rector for scientific and pedagogical work
Eduard BURACHKIVSKYI
September 1, 2025



**WORKING PROGRAM OF THE ELECTIVE COURSE IN THE DISCIPLINE
" Actual issues of minimally invasive vascular surgical technologies "**

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

Field of knowledge: 22 "Health care"

Specialty: 222 "Medicine"

Specialization : Surgery

Educational and professional: Medicine

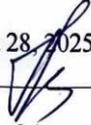
The work program is based on the educational and professional program "Medicine" for the training of specialists of the second (master's) level of higher education in the specialty 222 "Medicine" of the field of knowledge 22 "Healthcare", approved by the Academic Council of ONMedU (protocol No. 10 dated June 27, 2024) and the educational and professional program "Medicine" for the training of specialists of the second (master's) level higher education level in the specialty I 2 "Medicine" in the field of knowledge I "Healthcare and Social Security", approved by the Academic Council of ONMedU (protocol No. 10 dated June 26, 2025)

Authors:

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The work program is approved at the meeting of the Department of Surgery with Postgraduate Education

Minutes No. 1 dated August 28, 2025.

Head of the department  MD, Professor V. Hrubnik

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. 1 dated "28" of August 2025.

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

Revised and approved at the meeting of the department _____
Minutes No. ___ of "___" _____ 20__
Head of the department _____

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Minutes No. ___ of "___" _____ 20__
Head of the department _____

1. Description of the discipline

Name of indicators	Field of knowledge, specialty, specialization, level of higher education	Characteristics of the discipline
The total number of: Credits of ECTS: 3 Hours: 90 Content modules: 0	Field of knowledge 22 "Health care"	<i>Full-time (day) education</i>
	<hr/> Specialty 222 "Medicine"	<i>Discipline of free choice</i>
	<hr/> Level of higher education second (master's degree)	<i>Course: 5</i>
		<i>Semesters IX - X</i>
		<i>Lectures (0 hours)</i>
		<i>Seminars (0 hours)</i>
		<i>Practical classes (30 hours)</i>
		<i>Laboratories (0 hours)</i>
		<i>Independent work (60 hours)</i>
		<i>including individual tasks (0 hours)</i>
	<i>Final control form- credit test</i>	

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

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

Purpose

The purpose of studying the discipline "Actual issues of minimally invasive vascular surgical technologies" is to master theoretical knowledge of methods of diagnosis, treatment and prevention of diseases of the aorta and main vessels, primarily the most common and urgent ones

Task

- To analyze the advantages of modern endovascular methods of surgical treatment of patients not only in standard situations, but also in emergency situations and in the treatment of complications of surgical interventions.

- Familiarize with the principles of operation of the equipment used in the "hybrid operating room". To prove the indications and contraindications for endovascular interventions in vascular surgery. To evaluate the quality of life after minimally invasive surgical interventions.

- To familiarize with the current level of development of minimally invasive surgery, the social advantages of modern approaches, the principles of Fast Track surgery.

- To demonstrate the possibilities of using endovascular surgery in the treatment of oncological pathology of the gastrointestinal tract.

- To prove the general initial skills of manipulating endovascular instruments, to explain the means of eliminating complications during minimally invasive surgical interventions.

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

- **General (GC):**

- GC2. Ability to learn and acquire modern knowledge

- GC3. Ability to apply knowledge in practical situations

- GC4. Knowledge and understanding of the subject area and understanding of professional activity
- GC5. Ability to adapt and act in a new situation
- GC6. Ability to make informed decisions
- GC7. Ability to work in a team
- GC8. Ability for interpersonal interaction
- GC9. Ability to communicate in a foreign language
- GC10. Ability to use information and communication technologies
- GC11. Ability to search process and analyze information from various sources
- GC12. Determination and perseverance in the tasks and responsibilities taken
- GC13. Awareness of Equal Opportunities and Gender Issues
- GC14. The ability to realize one's rights and obligations as a member of society, to realize the values of a public (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine
- GC15. The ability to preserve and increase the moral, cultural, scientific values and achievements of society based on an understanding of the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technology, to use various types and forms of physical activity of active rest and healthy lifestyle
- GC16. Ability to evaluate and ensure the quality of work performed
- GC17. Commitment to the preservation of the environment

- **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
- SC15. Ability to conduct a work capacity examination
- SC16. Ability to maintain medical records, including electronic forms
- SC20. Ability to conduct epidemiological and medical-statistical studies of public health; processing social, economic and medical information
- SC23. Ability to develop and implement scientific and applied projects in the field of healthcare
- SC24. Compliance with ethical principles when working with patients, laboratory animals
- SC25. Compliance with professional and academic virtue, be responsible for the reliability of the scientific results obtained
- SC26. The ability to determine the tactics of conducting persons subject to dispensary supervision

SC28. Ability to apply fundamental biomedical knowledge at a level sufficient to perform professional tasks in the field of healthcare

Program learning outcomes (PLO):

PLO1. Have a solid knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integrating knowledge. Be responsible for professional development, the ability for further professional training with a high level of autonomy.

PLO2. Understanding and knowledge of fundamental and Clinical biomedical sciences at a level sufficient to solve professional problems in the field of healthcare.

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).

PLO7. 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).

PLO8. 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.

PLO9. 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.

PLO10. 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.

PLO14. Determine tactics and provide emergency medical care in emergency conditions (according to list 3) in a limited time frame in accordance with existing Clinical protocols and treatment standards.

PLO15. 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.

PLO16. Form optimal medical routes for patients; organize interaction with colleagues in their own and other institutions, organizations and institutions; apply tools for promoting medical services on the market, based on an analysis of the needs of the population, in the conditions of

the functioning of healthcare, its division, in a competitive environment.

PLO17. 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.

PLO19. Plan and implement a system of anti-epidemic and preventive measures for the emergence and spread of diseases among the population.

PLO21. Find the necessary information in professional literature and databases in other sources, analyze, evaluate and apply this information.

PLO22. Apply modern digital technologies, specialized software, statistical methods of data analysis to solve complex healthcare problems.

PLO23. Assess the impact of the environment on the state of human health to assess the state of morbidity in the population.

PLO24. 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.

PLO25. It is clear and unambiguous to convey own knowledge, conclusions and arguments on health issues and related to issues of specialists and non-specialists.

PLO27. Communicate fluently in the state language and English, both orally and in writing, to discuss professional activities, research and projects.

PLO28. Make effective solutions to health problems, evaluate the necessary resources, consider the social, economic and ethical consequences.

PLO30. 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 discipline, the applicants has to:

— **know:**

1. The most common clinical symptoms and syndromes in vascular surgery;
2. General principles of treatment, rehabilitation and prevention of the most common diseases in vascular surgery;
3. Prognosis of life and working capacity in case of detected vascular pathology;
4. Main etiological and pathogenetic risk factors for vascular diseases;
5. Classify and analyze a typical clinical picture of acute and chronic pathology of main vessels;

be able:

1. To classify and analyze the typical clinical picture of acute and chronic pathology of main vessels
2. Make a rational plan of examinations in vascular surgery;
3. To predict and carry out prevention of the most common diseases of angiology;
4. Provide emergency medical care for the most common complications of diseases and injuries of main vessels;
5. Carry out differential diagnosis and be able to formulate a diagnosis of the most common vascular pathology;
6. Determine the optimal management tactics for patients with vascular pathology.

3.Content of the educational discipline

Topic 1 Diagnosis and differential diagnosis of vascular pathology. Features of modern instrumental diagnostic objectification of vascular pathology. The place of "routine use" of ultrasound diagnostics in the practice of a modern doctor.

Topic 2 A look at the pathology of the carotid arteries. Clinical practical recommendations for the treatment of atherosclerotic diseases of the carotid and vertebral

arteries according to the recommendations of ESVS 2023. Why 20% in the pathology of this artery is so important.

Topic 3 Pathology of the abdominal aorta, modern methods of surgery. Aneurysms of the thoracic and abdominal aorta. Thoracoabdominal aneurysms. Aneurysms of peripheral vessels. Clinic, diagnostic program and treatment tactics for aneurysms of the aorta and peripheral arteries. Surgical and endovascular methods of treatment.

Topic 4 Acute arterial occlusion of the extremities. Etiology, pathogenesis and classification of acute limb ischemia. Diagnostic program, differential diagnosis and peculiarities of treatment tactics in acute limb ischemia. Surgical interventions in acute limb ischemia. The role of prevention of acute limb ischemia.

Topic 5 Modern recommendations for the treatment of pathology of the arteries of the lower extremities. Classification of stages of limb ischemia according to Rutherford. The choice of tactics of operative interventions according to the classification of TASC II - the extent of damage to the arteries of the limb.

Topic 6 Risks and advantages of modern methods of surgical treatment of pathologies of the arterial system. Possibilities of using endovascular methods in pathology of the gastrointestinal tract.

Topic 7 Acute conditions in vascular surgery and their solution. Classification of blood thinners features of their pharmacodynamics, routes of administration, complications.

Topic 8 Atherosclerosis of renal arteries and visceral branches of the abdominal aorta. Vasorenal hypertension. Diagnosis and differential diagnosis. Methods of treatment. Visceral ischemia. Variants of the clinical course. Complication. Diagnosis and differential diagnosis. Methods of treatment.

Topic 9 Modern view of the prevention of diseases of the vascular system. The weight of the hereditary factor and genetic factors in the development of vascular diseases. Hypolipidemic drugs and their complications.

Topic 10 Injury of main vessels. Classification. Clinic, diagnosis. Emergency care at the pre-hospital stage. Modern recommendations of treatment tactics.

4. The structure of the educational discipline

Themes	Number of hours					
	Total	including				
		Lectures	seminars	practical classes	laboratories	Independent work
Topic 1. Diagnosis and differential diagnosis of vascular pathology	8			2		6
Topic 2. A look at the pathology of the carotid arteries	8			2		6
Topic 3. Pathology of the abdominal aorta, modern methods of surgery.	10			4		6
Topic 4. Acute arterial occlusion of the extremities	8			2		6
Topic 5.	10			4		6

Modern recommendations for the treatment of pathology of the arteries of the lower extremities.						
Topic 6. Risks and advantages of modern methods of surgical treatment of pathologies of the arterial system	10			4		6
Topic 7. Acute conditions in vascular surgery and their solution.	8			2		6
Topic 8. Atherosclerosis of the renal arteries and visceral branches of the abdominal aorta.	10			4		6
Topic 9. A modern view of the prevention of diseases of the vascular system	10			4		6
Topic 10. Injury to the main vessels of the operation. Test	8			2		6
<i>Individual task</i>				-		-
Total hours	90			30		60

5. LECTURES ARE NOT PROVIDED BY THE CURRICULUM

5.2. Seminar classes are not provided

5.3. *Themes of practical classes*

No s/p	Theme	hours
1.	Topic 1. Diagnosis and differential diagnosis of vascular pathology	2
2.	Topic 2. A look at the pathology of the carotid arteries	2
3.	Topic 3. Pathology of the abdominal aorta, modern methods of surgery.	4
4.	Topic 4.	2

	Acute arterial occlusion of the extremities	
5.	Topic 5. Modern recommendations for the treatment of pathology of the arteries of the lower extremities.	4
6.	Topic 6. Risks and advantages of modern methods of surgical treatment of pathologies of the arterial system	4
7.	Topic 7. Acute conditions in vascular surgery and their solution.	2
8.	Topic 8. Atherosclerosis of the renal arteries and visceral branches of the abdominal aorta.	4
9.	Topic 9. A modern view of the prevention of diseases of the vascular system	4
10.	Topic 10. Injury to the main vessels of the operation. Test	2
	total	30

5.4. Laboratory classes are not provided

6. Independent work of the applicants

No n/p	Theme /TYPES OF TASKS	hours
1	Theme 1. Preparation for practical training	6
2	Theme 2. Preparation for practical training	6
3	Theme 3. Preparation for practical training	6
4	Theme 4. Preparation for practical training	6
5	Theme 5. Preparation for practical training	6
6	Theme 6. Preparation for practical training	6
7	Theme 7. Preparation for practical training	6
8	Theme 8. Preparation for practical training	6
9	Theme 9. Preparation for practical training	6
10	Theme 10. Preparation for practical training	6
	total	60

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:

1. Assessment of theoretical knowledge on the theme:
 - methods: individual survey on the theme, participation of the applicants 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.
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.

10. Distribution of points, obtained by the applicants

The average grade in the discipline 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 discipline	The sum of scores for the discipline
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 discipline, 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% applicants
B	Next 25% applicants
C	Next 30% applicants
D	Next 25% applicants
E	Next 10% applicants

10. Methodological support

- Working program in the discipline
- Syllabus
- Methodological recommendations for the practical classes in the discipline
- Methodological recommendations for the individual work of applicants
- Multimedia presentations
- Situational tasks
- Tests on the theme

11. Questions for the final control

1. Define the concept of arterial thrombosis and embolism
2. Classification of thrombosis and embolism
3. Symptoms and clinical course of arterial thrombosis
4. Stages of tissue ischemia according to V. S. Saveliev
5. Symptoms, clinical forms of pulmonary embolism
6. Differential diagnosis of vascular occlusive diseases, thrombosis and embolism
7. Tactics, choice of treatment method
8. Basic principles and methods of surgical treatment of thrombosis and embolism
9. Dispensary supervision of patients with vascular and heart diseases, methods of prevention of thromboembolism of main vessels.
10. Clinical characteristics of Lerich syndrome
11. Diagnosis of obliterating atherosclerosis
12. Modern methods of treatment of chronic obliterating diseases of the arteries of the lower extremities
13. Surgical treatment. Reconstructive operations
14. Clinical picture of endarteritis
15. Diagnosis and treatment of endarteritis
16. Clinic of non-specific aortoarteritis
17. Diagnosis and treatment of aortoarteritis

18. Clinic of Raynaud's disease
19. Diagnosis and treatment of Raynaud's disease
20. Classification of aortic aneurysm.
21. Symptoms and clinical course of aortic aneurysm
22. Variants of the clinical course and complications of aortic aneurysm
23. Differential diagnosis of aortic aneurysm
24. Tactics and choice of method of treatment of aortic aneurysm
25. Conservative therapy of aortic aneurysm
26. Surgical treatment of aortic aneurysm
27. Causes of aneurysms of peripheral arteries
28. Symptoms of aneurysms of peripheral arteries
29. Diagnosis of aneurysms of peripheral arteries
30. Treatment of aneurysms of peripheral arteries

12. LIST OF PRACTICAL SKILLS FOR THE FINAL CONTROL

- master the methods of taking an anamnesis in patients with aortic aneurysm or peripheral artery aneurysm
- have skills in diagnosing aortic aneurysm or peripheral artery aneurysm and their complications
- carry out differential diagnosis of aortic aneurysm and peripheral artery aneurysm with other diseases;
- master the method of anamnesis collection in the treatment of patients with acute thrombosis and embolism;
- to master the skills of clinical methods of examination of patients and diagnosis of acute arterial occlusion;
- carry out differential diagnosis of acute thrombosis and embolism;
- carry out differential diagnosis of venous and arterial thrombosis;
- draw up a conservative treatment plan;
- determine indications and contraindications for surgical intervention.

12. Recommended literature

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. Хімича, 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
8. SEIDEL'S GUIDE TO PHYSICAL EXAMINATION: AN INTERPROFESSIONAL APPROACH. Copyright © 2019 by Elsevier, Inc.
9. **Clinical Anatomy and Operative Surgery**=Клінічна анатомія і оперативна хірургія: Підручник для мед. ун-тів, інст., акад. Рекомендовано Вченою радою

Буковинського НМУ / О.М. Слободян, В.Ю. Єршов, Г.Ю. Костюк, В.І.

Півторак; за ред. В.Ю. Єршова. — К., 2018. — 504 с.

13. Sabiston Textbook of Surgery. The Biological Basis of Modern Surgical Practice, 20th Ed. 2016
14. 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
15. 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. Сайт Всеукраїнської Асоціації ендоскопістів – <http://endoscopy.com.ua/>
2. <https://youcontrol.com.ua/> - Асоціація судинних хірургів України