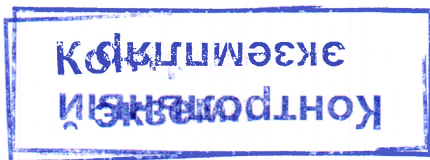


MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS  
EDUCATIONAL INSTITUTION  
BELARUSIAN STATE MEDICAL UNIVERSITY



APPROVED

by First Vice-Rector, Professor

I.N.Moroz

12.08. 2023

Reg # UD-L.02/2324 /edu. sub.

**SURGICAL DISEASES**

**Curriculum of educational institution in the educational discipline for the  
specialty 1-79 01 01 «General Medicine»**

**Sub-Residency «General Clinical Practice»**

Minsk 2023

Curriculum is based on the educational program of educational institution in the educational discipline «Surgical Diseases» for the Sub-Residency «General Clinical Practice (for foreign citizens)», approved 11.08.2023, registration # УД-Л.02/2324/уч.цyb.

### **COMPILERS:**

O.O.Rummo, Head of the Department of Surgery and Transplantology of the Educational Institution «Belarusian State Medical University», Chief Supernumerary Surgeon, Transplantologist of the Ministry of Health of the Republic of Belarus, D.Sc., Professor, Academician of the National Academy of Sciences of Belarus;

S.I.Tratsyak, Head of the Department of Surgical Diseases of the Educational Institution «Belarusian State Medical University», Corresponding member of the National Academy of Sciences of Belarus, D.Sc., Professor;

A.V.Plandovsky, Associate Professor of the Department of Surgery and Transplantology of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor;

A.V.Balshou, Associate Professor of the Department of Surgical Diseases of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor;

A.I.Protasevich, Associate Professor of the Department of Surgery and Transplantology of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor;

S.U.Yakubouski, Associate Professor of the Department of Surgery and Transplantology of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor;

A.V.Zhura, Associate Professor of the Department of Surgical Diseases of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor;

V.G.Kozlov, Associate Professor of the Department of Surgical Diseases of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor

### **RECOMMENDED FOR APPROVAL:**

by the Department of Surgery and Transplantology of the Educational Institution «Belarusian State Medical University»

(protocol # 18 of 14.07.2023);

by the Department of Surgical Diseases of the Educational Institution «Belarusian State Medical University»

(protocol # 14 of 29.06.2023);

by the Scientific and Methodological Council of the Educational Institution «Belarusian State Medical University»

(protocol # 7 of 10.08.2023)

### EXPLANATORY NOTE

«Surgical Diseases» is the educational discipline containing systematized scientific knowledge about the etiology, pathogenesis, clinical presentation, diagnosis, differential diagnosis, treatment and prevention of diseases requiring surgical methods of management.

The purpose of teaching the educational discipline «Surgical Diseases» for the sub-residency «General Clinical Practice (for foreign citizens)» is to develop students' academic, social, personal and professional competencies to provide medical care to patients with surgical diseases.

The objectives of teaching the educational discipline are to form and deepen students' scientific knowledge about the etiology, pathogenesis, clinical manifestations, methods of diagnosis and treatment of surgical diseases, skills and abilities necessary for:

- clinical examination of patients with surgical diseases;
- interpretation of the results of laboratory and instrumental research methods;
- diagnostics and treatment surgical diseases;
- medical prevention of surgical diseases;
- medical rehabilitation of patients with surgical diseases;
- ensuring epidemiological safety in the providing medical care.

Teaching and successful study of the educational discipline «Surgical Diseases» for the sub-residency «General Clinical Practice (for foreign citizens)» is carried out on the basis of the knowledge and skills acquired by the student in the sections of the following academic disciplines:

Medical and biological physics. Medical devices and equipment used in surgery.

Medical biology and general genetics. Biological bases of human activity. Biology of the cell. Reproduction. Protozoology. Biology of protozoa.

Latin language. Latin and Greek word-formation elements, terminology in Latin.

Human anatomy. The structure of the human body, its constituent systems, organs, tissues, sex and age characteristics of the body.

Histology, cytology, embryology. Methods of histological and cytological studies. Blood and lymph. Loose connective tissue. epithelial tissues. Organs of hematopoiesis and immune protection (central and peripheral), structure, immunogenesis.

Normal physiology. The main physiological functions of organs and systems of the human body.

Microbiology, virology, immunology. Bacteriological and immunological methods for diagnosing surgical infections. Microbiological bases of chemotherapy and antiseptics.

Topographic anatomy and operative surgery. Fundamentals of operative surgery, basic principles of performing surgical interventions. Theoretical basis, topographic anatomy when performing various manipulations and operations in various anatomical areas.

Pathological physiology. The main pathophysiological processes underlying the development of the most frequent surgical diseases and injuries.

Pathological anatomy. Morphology of pathological processes characteristic of surgical diseases.

General surgery. Basic concepts of surgery, desmurgy, transport immobilization, bleeding and blood loss, blood transfusion, plasma substitutes. Asepsis, antisepsis, the basics of performing surgical manipulations, treatment of wounds.

Pharmacology. Medicines used in the treatment of surgical diseases.

Surgical diseases. Etiology, pathogenesis, clinical picture, diagnosis, treatment of the most common surgical diseases.

As a result of studying the educational discipline «Surgical Diseases» for the sub-residency «General Clinical Practice (for foreign citizens)» student should

**know:**

etiology, classification, pathogenesis, clinical picture, diagnosis and differential diagnosis, methods of prevention and treatment of the most common surgical diseases;

algorithms (standards) for examination and provision of medical care to patients with surgical diseases;

therapeutic tactics in the development of critical conditions in patients with surgical diseases;

**be able to:**

apply communication skills with the patient based on an assessment of his mental and personal characteristics, individual response to the disease, use the techniques of interpersonal communication or professional communication;

conduct preventive examinations of the population and dispensary observation of the adult population;

conduct an objective examination of patients with surgical diseases (questioning, examination, percussion, palpation, auscultation);

determine indications for additional diagnostic methods and carry out clinical interpretation of the data obtained;

carry out differential diagnostics of diseases, use the advice of specialists in establishing the final clinical diagnosis;

formulate the diagnosis of the main surgical diseases;

draw up approved forms of medical documentation;

provide emergency medical care for fainting, collapse, shock, coma, acute heart failure, stroke, acute respiratory failure, epileptic seizure, allergic reactions, acute surgical abdominal diseases and processes, trauma, poisoning, various burns, frostbite, bleeding;

organize the transportation of patients to specialized healthcare organizations and provide medical support;

assist in the most frequent emergency operations;

**master:**

methods for taking anamnesis, examination and physical examination of patients with suspected surgical disease;

method of identifying the most common symptoms of surgical diseases;  
technique of assisting in the removal of benign superficial tumors, appendectomy, cholecystectomy, hernia repair, phlebectomy and other most commonly performed abdominal and thoracic surgical interventions;  
skills in the treatment of uncomplicated surgical wounds;  
technique of assisting in the surgical treatment of purulent-inflammatory processes of soft tissues;  
technique for applying and removing skin sutures;  
methods of caring for pleural drains and drains in the abdominal cavity, the technique of their removal;  
digital rectal examination technique.

Total number of hours for the discipline study is 140 academic hours. Classroom hours according to the types of studies: practical classes - 91 hours; student independent work (self-study) - 49 hours.

Intermediate assessment is carried out according to the syllabus of the specialty in the form of a credit (12 semester).

Final certification - state exam.

Form of higher education is full-time.

## THEMATIC PLAN

Section (topic) name	Number of class hours
	practical
1. Appendicitis	6
2. Hernias. Complications of abdominal hernia	6
3. Diseases of the gallbladder and bile ducts	6
4. Diseases of the pancreas	6
5. Complications of gastroduodenal ulcers	6
6. Gastrointestinal bleeding	6
7. Intestinal obstruction	6
8. Peritonitis. Differential diagnosis of acute surgical diseases of the abdominal organs	7
9. Diseases of arteries and veins	7
10. Surgery of the mediastinum. Diseases of the breast	7
11. Diabetes mellitus in surgery	7
12. Surgery of lungs and pleura	7
13. Surgery of esophagus	7
14. Surgical treatment of parasitic diseases	7
<b>Total hours</b>	<b>91</b>

### CONTENT OF THE EDUCATIONAL MATERIAL

#### 1. Appendicitis

Acute appendicitis: anatomy, etiology, pathogenesis, classification, syndromes, clinical picture, diagnosis, differential diagnosis. Features of the clinical picture and diagnosis of appendicitis in children, the elderly, pregnant women. Features of the clinical picture of acute appendicitis with different localization of the appendix. Chronic appendicitis: classification, clinical picture, diagnosis, principles of treatment, outcomes.

Classification of complications of appendicitis, causes. Preoperative complications of appendicitis, complications during surgery. Features of complications of acute appendicitis in the postoperative period. Clinical picture, diagnosis and treatment of complications of acute appendicitis, their prevention. Appendicular infiltrate: diagnosis, differential diagnosis, treatment, features of performing surgical interventions, management of the postoperative period.

Examination of patients with acute appendicitis: failure - complaints and anamnesis of the disease, physical examination, drawing up an examination plan, interpretation of the results of laboratory and instrumental methods of examination, formulation of the diagnosis, substantiation of indications for surgical intervention, drawing up a plan for surgical intervention, assisting in the performance of appendectomy. Postoperative management of patients. Preparation of medical documentation.

Practicing surgical skills on simulators: skin suture, intestinal suture.

## **2. Hernias. Complications of abdominal hernias**

Uncomplicated hernias: definition, anatomy, causes, pathogenesis, classification, clinical picture, diagnosis and treatment. Irreducible hernia: definition, clinical picture, diagnosis, treatment. Postoperative hernia: causes, clinical picture, diagnosis, treatment. Reasons for the development of recurrent hernias. Prevention of hernia formation.

Strangulation, inflammation, coprostasis: clinical picture, diagnosis and treatment, principles of operations, features of the postoperative period. Tactics of a surgeon with a dubious diagnosis of a strangulated hernia, with its spontaneous and forced retraction.

Examination of patients with uncomplicated and complicated hernias (strangulation, inflammation, coprostasis): collecting complaints and anamnesis of the disease, physical examination, drawing up an examination plan, interpreting the results of laboratory and instrumental examination methods, formulating a diagnosis, substantiating indications for surgical intervention, drawing up a plan for surgical intervention, assisting in performing hernia repair. Postoperative management of patients. Preparation of medical documentation.

Practicing surgical skills on simulators: applying a skin suture.

## **3. Diseases of the gallbladder and bile ducts**

Anatomy, physiology, methods of diagnosing the pathology of the hepatobiliary system. Clinical forms of gallstone disease, diagnosis, complications, treatment.

Acute cholecystitis: etiology, pathogenesis, classification, clinical presentation, diagnosis, differential diagnosis, treatment.

Chronic cholecystitis: etiology, pathogenesis, clinical picture, diagnosis, treatment, features of performing surgical interventions, management of the postoperative period.

Classification of complications of cholecystitis. Tactics of treatment of complicated forms of acute and chronic cholecystitis.

Basic principles of surgical treatment of diseases of the biliary tract, errors and dangers, their causes, prevention and methods for correcting complications. Indications for repeated and reconstructive operations on the bile ducts. The concept of postcholecystectomy syndrome, classification, treatment tactics.

Jaundice classification. The concept of cholestasis syndrome. Clinical picture, diagnosis, principles of differential diagnosis of jaundice of various etiologies. Modern special methods of examination of patients with jaundice. Differential diagnosis of obstructive jaundice. Features of operations in patients with jaundice, preoperative preparation, postoperative treatment (modern methods), difficulties and mistakes in diagnosis and treatment, features of postoperative management. Liver transplant.

Examination of patients with surgical diseases of the hepatobiliary system: collection of complaints and anamnesis of the disease, physical examination, drawing up an examination plan, interpretation of the results of laboratory and instrumental methods of examination, formulation of the diagnosis and indications for surgical intervention, drawing up a plan for surgical intervention, assisting in performing

cholecystectomy. Postoperative management of patients. Preparation of medical documentation.

Practicing surgical skills on simulators: applying a skin suture.

#### **4. Diseases of the pancreas**

Acute pancreatitis: definition, classification, etiology, pathogenesis, clinical picture, diagnosis, differential diagnosis. Tactics of managing patients with acute necrotizing pancreatitis.

Complications of acute pancreatitis, principles of diagnosis and differential diagnosis. Difficulties and errors in the diagnosis and treatment of complications of acute pancreatitis. Features of the implementation and timing of surgical interventions in the development of complications of acute pancreatitis, features of the postoperative period.

Chronic pancreatitis: classification, etiology, pathogenesis, clinical forms, diagnosis, differential diagnosis, treatment (conservative and surgical), outcomes.

Cysts, fistulas of the pancreas: difficulties and errors in diagnosis and treatment. Features of performing surgical interventions on the pancreas, features of the postoperative period.

Examination of patients with diseases of the pancreas: collection of complaints and anamnesis of the disease, objective examination, physical examination, drawing up an examination plan, interpreting the results of laboratory and instrumental examination methods, formulating a diagnosis, substantiating indications for surgical intervention, drawing up a plan for surgical intervention, assisting in the performance of surgical interventions on the pancreas, postoperative management of the patient. Preparation of medical documentation.

#### **5. Complications of gastroduodenal ulcers**

Perforated ulcer: definition, pathogenesis, clinical presentation, diagnosis, differential diagnosis of typical and atypical perforations. Types of operations for perforated ulcers of the stomach and duodenum. Atypical perforations of gastroduodenal ulcers: features of the clinical picture, diagnosis and treatment, management of the postoperative period.

Gastric outlet obstruction due to the peptic ulcer (pyloroduodenal stenosis): definition, classification, pathogenesis, clinical presentation depending on the stage of the disease. Methods of examination of patients with gastric outlet obstruction of ulcerative etiology, differential diagnosis with gastric outlet obstruction of other etiologies, principles of conservative treatment, indications for surgical intervention, choice of surgical method, management of the postoperative period.

Penetrating ulcer: definition, etiology, pathogenesis, clinical picture, diagnostic methods, features of surgical treatment, management of the postoperative period.

Callous ulcer: definition, etiology, pathogenesis, clinical presentation, methods of diagnosis, treatment.

Examination of patients with complications of gastroduodenal ulcers: collection of complaints and anamnesis of the disease, objective examination, physical examination, drawing up an examination plan, interpreting the results of laboratory and instrumental examination methods, formulating a diagnosis and indications for surgical intervention, drawing up a plan for surgical intervention,



assisting in suturing the perforated ulcers, resection of the stomach. Postoperative management of patients. Preparation of medical documentation.

Practicing surgical skills on simulators: skin suture, intestinal suture.

### **6. Gastrointestinal bleeding**

Pathology and pathogenesis of peptic ulcer bleeding. Clinical picture of bleeding secondary to peptic ulcer disease. Classification of bleeding secondary to peptic ulcer disease. The methods used to detect bleeding and estimate the volume of blood loss, differential diagnosis with upper gastrointestinal bleeding of other localization. Treatment of bleeding peptic ulcers: principles of conservative treatment, endoscopic therapy (hemostasis), indications for surgery, timing, type of surgery, postoperative management.

Inspection of patients with bleeding secondary to peptic ulcer disease: complaints and medical history gathering, physical examination, drawing up an examination plan, assessment of the finding of laboratory and instrumental methods, making a diagnosis, choosing a method of surgical treatment, assisting in the performance of gastric resection, postoperative management. Writing medical records.

### **7. Intestinal obstruction**

Intestinal obstruction: definition, classification, etiology, pathogenesis of various forms of intestinal obstruction, pathological features. Clinical presentation, diagnosis, differential diagnosis of mechanical and dynamic types of intestinal obstruction. Diagnostic and treatment complex for intestinal obstruction. Up to date approaches to the treatment of intestinal obstruction, outcomes, prevention of complications, the difficulties and errors in diagnosis and treatment, peculiarities of surgical interventions, postoperative management.

Assessment of patients with intestinal obstruction: complaints and medical history gathering, physical examination, drawing up an examination plan, assessment of the results of laboratory and instrumental methods, the formulation of the diagnosis, justification of indications for surgery, drawing up a surgical plan, assisting in the performance of operations for intestinal obstruction. Postoperative management. Writing medical records.

Practicing surgical skills on simulators: skin suture, intestinal suture.

### **8. Peritonitis. Differential diagnosis of acute surgical diseases of the abdominal organs**

Peritonitis: definition, anatomy and physiology of peritoneal cavity, etiology, pathogenesis, classification (according to etiology, extension, clinical stages), syndromic diagnosis, differential diagnosis, advanced principles of treatment, preoperative preparation, key tasks and steps of surgical intervention. Principles of antibiotic therapy of peritonitis, peculiarities of postoperative management. Local (localised) peritonitis (subhepatic, subdiaphragmatic abscesses, Douglas abscess, interloop abscesses): causes, clinical presentation, diagnosis, treatment. Clinical features of specific types of peritonitis, diagnosis and treatment. Challenges and pitfalls of diagnosis and treatment of peritonitis, details of surgical interventions, postoperative management.

Diseases that simulate «acute abdomen» (injuries and diseases of the anterior abdominal wall and retroperitoneum, diseases of the abdominal organs that do not requiring surgical intervention, gynecological diseases, injuries and diseases of the chest and diaphragm, urological diseases, injuries and diseases of the spine, brain and spinal cord, psychoneurological diseases, infectious diseases, endocrine diseases, blood system diseases): peculiarities of pathophysiology, clinical picture, basic principles of differential diagnosis with acute surgical diseases of the abdominal cavity.

Assessment of patients with peritonitis and suspected acute surgical pathology: gathering complaints and history of the disease, objective examination, physical examination, drawing up an diagnostic plan, evaluation of laboratory and diagnostic results, formulation of diagnosis, justification of indications for surgical intervention, drawing up a surgical intervention plan, assisting in the surgery for peritonitis. Postoperative management. Writing medical records.

Practicing surgical skills on simulators: skin suture, intestinal suture.

### **9. Diseases of arteries and veins**

The obliterating atherosclerosis, obliterating thrombangiitis: etiology, pathogenesis, clinical picture, diagnosis, differential diagnosis, principles of conservative and surgical treatment.

Chronic arterial insufficiency: pathogenesis, clinical picture, diagnosis, differential diagnosis, treatment. Pokrovsky-Fontaine classification. Critical limb ischemia. Raynaud's disease: clinical picture and diagnosis, treatment.

Acute disturbances of peripheral circulation, thrombosis and embolism of peripheral arteries of various localization, acute arterial obstruction syndrome: clinical picture, diagnosis, degrees of ischemia. Details of surgical interventions on the main vessels, postoperative management.

Venous system: anatomy, physiology, special and functional diagnostic tests. Classification, etiology, pathogenesis, clinical picture, diagnosis and treatment of varicose veins, conservative management, indications for surgery, types of surgery, peculiarities of surgical interventions.

Complications of varicose veins: clinical picture, diagnosis, principles of treatment. Thrombophlebitis of the superficial veins of the lower extremities: clinical picture, diagnosis, treatment.

Deep vein thrombosis: clinical picture, diagnosis, differential diagnosis, treatment. Post-phlebotic syndrome: etiology, pathogenesis, clinical picture (stages), classification. Methods of examining patients with chronic venous insufficiency. Lower leg trophic ulcers: etiopathogenesis, clinical picture, differential diagnosis, treatment.

Assessment of patients with arterial and venous diseases: collection of complaints and medical history, objective and physical examination, development of an assessment plan, interpretation of the results of laboratory and instrumental methods of examination, formulation of diagnosis, justification of indications for surgical intervention, preparation of a surgical intervention plan, assisting in the performance of surgical interventions on arteries and veins, postoperative management of patients. Writing medical records.

### **10. Surgery of the mediastinum. Diseases of the breast**

Anatomy and topography of the mediastinum, special diagnostic methods of the mediastinal organs. Mediastinitis: etiology, pathogenesis, clinical presentation, diagnosis, management. Benign tumors and cysts of mediastinum: classification, etiology, pathogenesis, clinical presentation, diagnosis, management. Surgical access and peculiarities of surgical operations.

Anatomy and physiology of the breast. Classification of breast diseases. Dishormonal diseases of the breast. Mastitis: classification, clinical picture, diagnosis, differential diagnosis, principles of treatment, prevention.

Examination of patients with breast diseases: complaints and medical history gathering, inspection and physical examination, drawing up an examination plan, assessment of the results of laboratory and instrumental methods, the formulation of the diagnosis, justification of indications for surgery, drawing up a surgical plan, formulation of diagnosis, justification of indications for surgery, preparation of an intervention plan, assistance in performing surgical interventions on the breast; postoperative management of patients. Writing medical records.

### **11. Diabetes mellitus in surgery**

Characteristics of surgical diseases in patients with diabetes mellitus. Diabetic foot: classification, etiology, pathogenesis, clinical picture, diagnosis, principles of rational treatment, indications for revascularization, types of procedures, postoperative management. Prevention of ulcerative-necrotic lesions of the foot.

Examination of patients with diabetic foot syndrome: history taking, inspection and physical examination, defining a diagnostic plan, interpretation of the results of laboratory and instrumental examination methods, formulation of diagnosis, justification of indications for surgery, preparation of an operation plan, assistance in performing surgical interventions; postoperative management of patients. Writing medical records.

### **12. Surgery of lung and pleura**

Topographic anatomy, special diagnostic methods of the organs of the thorax. Acute and chronic suppurative lung diseases (abscesses, gangrene, bronchiectasis, suppurating cyst): etiology, pathogenesis, clinical manifestations, diagnosis and differential diagnosis, methods of treatment. Acute and chronic pleural empyema: etiology, pathogenesis, clinical picture, diagnosis and differential diagnosis, methods of treatment. Spontaneous pneumothorax: etiology, pathogenesis, clinical picture, diagnosis and differential diagnosis, methods of treatment. Benign tumors and cysts of the lungs: classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment. Lung transplantation.

Examination of patients with surgical diseases of the lungs and pleura: collection of complaints and history of the disease, inspection and physical examination, making an examination plan, interpretation of the results of laboratory and instrumental methods of examination, formulation of the diagnosis, justification of indications for surgical intervention, making a plan for surgical intervention, assisting in the performance of surgical interventions; postoperative management of patients. Writing medical records.

### **13. Surgery of esophagus**

Anatomy and topography of esophagus. Spontaneous esophageal rupture: etiology and pathogenesis, clinical manifestation, diagnosis, surgical treatment. Functional disorders, diverticula, foreign bodies and benign tumors of esophagus: classification, pathogenesis, clinical presentation, diagnosis and treatment. Caustic injury of esophagus: classification, clinical manifestation, diagnostics, urgent medical care, treatment. Strictures of esophagus: etiology and pathogenesis, clinical presentation, diagnostics, treatment.

### **14. Surgical treatment of parasitic diseases**

Amoebiasis. Clinical manifestation, diagnosis, treatment, indications for surgical treatment. Echinococcosis. Clinical manifestation, diagnosis, treatment, indications for surgical treatment, types of operations. Alveococcosis. Clinical manifestation, diagnosis, treatment, indications for surgical treatment, types of operations. Opisthorchiasis. Clinical manifestation, diagnosis, treatment, indications for surgical treatment, types of operations. Ascariasis. Clinical manifestation, diagnosis, treatment, indications for surgical treatment, types of operations.

Examination of patients with parasitic diseases: preparation of an examination plan, interpretation of the results of laboratory and instrumental examination methods, formulation of the diagnosis, justification of indications for surgery, preparation of an operation plan, assistance in performing surgical interventions; postoperative management of patients. Writing medical records.

**EDUCATIONAL METHODOLOGICAL CARD OF EDUCATIONAL DISCIPLINE «SURGICAL DISEASES» FOR THE  
SUB-RESIDENCY «GENERAL CLINICAL PRACTICE (FOR FOREIGN CITIZENS)»**

Section (topic) number	Section (topic) name	Number of hours		out-of-class selfstudies	Equipment	Literature	Form of knowledge control
		practical					
1.	Appendicitis	6		3	1-5	1-4, 8	1-4, 6, 7
2.	Hernias. Complication of abdominal hernias	6		3	1-5	1-4, 8	1-4, 6, 7
3.	Diseases of the gallbladder and bile ducts	6		4	1-5	1-4, 8, 10	1-4, 6, 7
4.	Diseases of the pancreas	6		3	1-4	1-4, 8, 11	1-4, 6
5.	Complications of the gastroduodenal ulcer	6		3	1-5	1-4, 8	1-4, 6, 7
6.	Gastrointestinal bleeding	6		4	1-4	1-4, 8	1-4, 6
7.	Intestinal obstruction	6		4	1-5	1-4, 8	1-4, 6, 7
8.	Peritonitis. Differential diagnostics of acute surgical pathology of abdominal organs	7		4	1-5	1-4, 5, 7, 8, 9	1-4, 6, 7
9.	Diseases of arteries and veins	7		3	1-4	1-4, 6, 8	1-4, 6
10.	Surgery of the Mediastinum. Diseases of the breast	7		3	1-4	1-4, 5, 8	1-6
11.	Diabetes mellitus in surgery	7		3	1-5	1-4, 5, 8	1-4, 6, 7
12.	Surgery of lungs and pleura	7		4	1-5	1-4, 8	1-4, 6, 7
13.	Surgery of esophagus	7		4	1-5	1-4, 8	1-4, 6, 7
14.	Surgery of parasitic diseases	7		4	1-5	1-4, 8	1-7
	<b>Total hours</b>	<b>91</b>		<b>49</b>			

## INFORMATION AND INSTRUCTIONAL UNIT

### LITERATURE

#### Basic:

1. Essentials of General Surgery and Surgical Specialties. / Peter F. Lawrence [et. al.]. 6th ed. Philadelphia [etc.] : Wolters Kluwer : Lippincott Williams & Wilkins, 2019. - 1403 p.

#### Additional:

2. Schwartz's principles of surgery / F. Chatles Brunicaardi [et. al.]. 11th ed. McGraw-Hill Education / Medical, 2019. - 2448 p.

3. Greenfield's Surgery: Scientific Principles & Practice / Michael W. Mulholland [et. al.] 6th ed., 2017. - 2090 p.

4. Sabiston textbook of surgery : the biological basis of modern surgical practice / Courtney M. Townsend [et. al.]. 20th ed., 2017. - 2176 p.

5. Заболевания щитовидной железы = Thyroid disorders : учебно-методическое пособие / С. В. Якубовский [и др.]. – Минск : БГМУ, 2022. – 28 с.

6. Игнатович, И. Н. Хроническая угрожающая потерей нижней конечности ишемия = Management of chronic limb-threatening ischemia : учебно-методическое пособие / И. Н. Игнатович, С. В. Якубовский, А. В. Жура. – Минск : БГМУ, 2021. – 31 с.

7. Перитонит = Peritonitis : учебно-методическое пособие / А. В. Жура [и др.]. – Минск : БГМУ, 2020. – 40 с.

8. Игнатович, И. Н. Контрольные вопросы по хирургическим болезням = Examinational questions on surgical diseases : методические рекомендации / И. Н. Игнатович, С. В. Якубовский, А. В. Жура. – Минск : БГМУ, 2018. – 76 с.

9. Жура, А. В. Закрытая травма груди и живота = Blunt abdominal and chest trauma : учеб.-метод. пособие / А. В. Жура, В. Г. Козлов. - Минск : БГМУ, 2015. - 40 с.

10. Жура, А. В. Заболевания желчного пузыря и протоков = Diseases of gallbladder and bile ducts : учеб.-метод. пособие / А. В. Жура, А. В. Большов. - Минск : БГМУ, 2015. - 40 с.

11. Жура, А. В. Острый панкреатит = Acute pancreatitis : учеб.-метод. пособие / А. В. Жура. - Минск : БГМУ, 2015. - 32 с.

### CHARACTERISTICS OF THE USED TRAINING METHODS

The educational process is organized based on traditional methods of teaching the discipline: practical classes, and the controlled self-work of students.

The education process should be organized through both traditional and modern educational technologies (simulation learning technologies, various forms of communication, variant models of self-work, competency assessment test systems).

Practical classes are held at the surgical departments of health care organizations. Students under supervision of the teacher gather patient's complaints and medical history, perform physical examination, learn how to plan laboratory and instrumental tests, how the results of laboratory and instrumental methods of research

should be interpreted, how to make a diagnosis, how to design medical treatment or surgery plan, how to write up medical documentation. Practical skill training is provided by resolving situational tasks, tests, by practicing the skills of examination of patients, diagnosis and differential diagnosis of diseases, medical interventions using electronic-mechanical simulators.

Self-study extracurricular activities consist of reading the main and additional literature, researching books and journals, preparing reports, abstracts, presentations and brief reports on the most actual problems of surgery, studying the topics (issues) submitted for self-study, preparing for practical classes, credit, and state examination.

Students are introduced to the safety working conditions, international requirements and ethical standards in the examination of patients, diagnostic and therapeutic manipulations.

#### **LIST OF TRAINING MEANS**

1. Multimedia presentations.
2. Videos.
3. Medical cards of inpatients and outpatients.
4. Results of additional diagnostic tests (laboratory, instrumental).
5. Simulation equipment.

#### **LIST OF AVAILABLE DIAGNOSTIC TOOLS**

Assessment of student's academic achievements is carried out using the resources and technologies of a university. The set of assessment tools of student's academic achievements includes:

standard tasks in various forms (oral, written, test, situational, simulation);

topics of essays;

medical cards of inpatients and outpatients and the results of additional diagnostic tests (laboratory, functional, radiological).

The following forms of knowledge control are used to diagnose competencies:

Oral form:

1. Interview.
2. Conference presentation.

Written form:

3. Tests.
4. Situational tasks.

Oral and written form:

5. Credit.

Technical form:

6. Electronic tests.

Simulation form:

7. Assessment using electronic-mechanical simulators and robot simulators.

**LIST OF PRACTICAL SKILLS**

1. Physical examination of the patient with surgical pathology.
2. Preparation of the surgical field.
3. Dressing a clean wound.
4. Application of knotted sutures.
5. Removing knotted sutures.
6. Application of bandages.
7. Applying a pressure dressing.
8. Application of hemostatic tourniquet.
9. Digital rectal examination.
10. Performing a siphon enema.
11. Pleural puncture.
12. Catheterization of the bladder with an elastic catheter in acute urinary retention.
13. Determination of blood groups (using standard sera).
14. Writing medical documentation.
15. Interpretation of the results of X-ray, ultrasound methods of research, the results of endoscopic studies.



**COMPILERS:**

Head of the Department of Surgery and Transplantology of the Educational Institution «Belarusian State Medical University», Chief Supernumerary Surgeon, Transplantologist of the Ministry of Health of the Republic of Belarus, D.Sc., Professor, Academician of the National Academy of Sciences of Belarus

O.O.Rummo

Head of the Department of Surgical Diseases of the Educational Institution «Belarusian State Medical University», Corresponding member of the National Academy of Sciences of Belarus, D.Sc., Professor

S.I.Tratsyak

Associate Professor of the Department of Surgery and Transplantology of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor

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Associate Professor of the Department of Surgery and Transplantology of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor

A.I.Protasevich

Associate Professor of the Department of Surgery and Transplantology of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor

S.U.Yakubouski

Associate Professor of the Department of Surgical Diseases of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor

A.V.Zhura

Associate Professor of the Department of Surgical Diseases of the Educational Institution «Belarusian State Medical University», PhD, Associate Professor

V.G.Kozlov

Curriculum content, composition and the accompanying documents comply with established requirements.

Dean of the Medical Faculty for  
International Students of the educational  
institution «Belarusian State Medical  
University»

08.08. 2023

O.S.Ishutin

Methodologist of the educational institution  
«Belarusian State Medical University»

08.08. 2023

S.V.Zaturanova