

MINISTRY OF HEALTHCARE OF THE REPUBLIC OF BELARUS
BELARUSSIAN STATE MEDICAL UNIVERSITY

APPROVED



First Deputy Director, professor

S.V.Gubkin

2015

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Контрольный
экземпляр

SURGICAL DISEASES

Curriculum of the high educational establishment for specialty

1-79 01 07 Dentistry

Curriculum was based on the Standard curriculum “Surgical diseases” approved on “10 06 2015, reg.# ТД-Л. 507/мин”

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RECOMMENDED FOR FURTHER APPROVAL

Recommended for approval as curriculum at the general surgery department meeting on 4/02/2015 (protocol #7)

Methodological commission on surgical disciplines meeting of the educational institution “Belarusian State Medical University” on May, 27, 15 (protocol #7)

EXECUTIVE SUMMARY

Surgical diseases is an academic discipline comprising systematic scientific knowledge and methods of general surgery sections and surgical pathology.

The curriculum "Surgical Diseases" discipline aimed onto the learning of the novel scientific data on the basis of surgical diseases, the formation of clinical medical judgment, mastering of the basic surgical and medical skills, learning of the ethical and deontological aspects of doctor's profession.

The purpose of the teaching and learning of educational discipline "Surgical Diseases" is the formation of knowledge, which will enable to master the basic principles of diagnosis and treatment of surgical diseases.

Tasks of the discipline are composed in the students' acquisition of academic competence, which is based on:

- principles of desmurgy, aseptic and antiseptic, bases of haemotransfusiology, bleeding management, hemostasis and compensation of blood loss;
- general principles of anesthesiology and resuscitation and critical care medicine, plastic surgery, oncology and transplantation, the basic principles of diagnosis and treatment of purulent surgical diseases, disorders of the peripheral circulation;
- basis of diagnosis, treatment and prevention of certain urgent surgical diseases;
- skills necessary to provide primary and specialized medical care for patients with acute surgical diseases, injuries and urgent conditions.

Task of teaching are composed of the social, personal and professional competence formation, the foundation of which is the knowledge and application of:

- ability to identify signs and symptoms of surgical diseases;
- knowledge of methods of several of surgical diseases diagnosis;
- techniques of primary health care usage in certain life-threatening conditions, as well as choice of place surgical patient's examination and treatment.

Successful surgical diseases teaching and studying is carried out on the basis of knowledge and skills acquired by students in the following disciplines:

Latin. Knowledge of Latin and Greek word-forming elements and a certain minimum of terminology in Latin.

Medical Biology, and General Genetics. Biological bases of human life. Cell biology. Reproduction. Protozoology. Biology of protozoa.

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

Human anatomy. Structure of human body, its systems, organs, tissues, gender and age characteristics of the organism.

Histology, Embryology. Cytology. Methods of histological and cytological studies. Blood and lymph. Loose connective tissue. Epithelial tissue. Organs of hemopoiesis and immune defense (central and peripheral), structure, immunogenesis.

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

Pharmacology. Basic principles of drugs action. Antibacterial and antiparasitic agents.

Pathological anatomy. Inflammation - the concept and the biological essence.

Pathological physiology. The doctrine of the pathogenesis. Pathogenic effects of environmental factors (biological factors - viruses, bacteria, protozoa). The role of reactivity in pathology.

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

Topographic anatomy and operative surgery. Surgical instruments. Technique of the most common surgical procedures.

Training requirements for students upon termination studying the discipline

The student should know:

- ethiology, pathogenesis, classification, clinical presentation, diagnostic and differential diagnostic methods, management of the most common surgical diseases in adult patients;
- clinical presentation, diagnostics and management in emergent conditions requiring surgery;
- management principles in critical state in surgical patient;

The student should be able to:

- examine surgical patient;
- determine indications for additional diagnostic methods and interpret the data obtained;
- give emergent care in life-threatening conditions;
- manage the patient's transportation to the specialized healthcare institutions and give medical support in these situations;
- perform cardiopulmonary resuscitation, transport immobilization;
- perform venepunction, venesection, pleural punction, epicystostomy and urinary bladder catheterization;
- calculate the infusion therapy volume, perform hemotransfusion, exchange hemotransfusion;
- apply contemporary detoxification methods;
- perform primary surgical care in case of wounds, to assist in common surgical interventions;

Student must know how to:

- assist during surgical interventions.

Curriculum structure on educational discipline "Surgical diseases" include two sections: general surgery and certain surgical pathology.

Totally the educational discipline has 136 hours including 85 practical hours. Allocation by the types of classes is as follows: 22 hours for lectures, 63 hours for practical classes. Ongoing attestation is carried out in accordance with studying plan of the speciality as credit (terms 5 and 6).

Form of higher education is full-time daytime.

TRAINING TIME BUDGET ALLOCATION FOR TERMS

Code, title of specialty	Term	N of academic hours					Form of attestation
		total	including class hours	incl.			
				lections	practical	self extracurricular	
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
1-79 01 07 Dentistry	5	64	42	12	30	22	credit
	6	72	43	10	33	29	credit
Hours total		136	85	22	63	51	

LESSON PLAN

Topic (section) title	N of class hours	
	lections	practical
1. General surgery	12	30
1.1. Introduction to surgery. Desmurgy	–	3
1.2. Asepsis and antisepsis	2	3
1.3. Bleeding and blood loss	–	3
1.4. Transfusion of donor blood, blood components and preparations, blood substitutes	2	3
1.5. Examination of surgical patient	–	3
1.6. Surgical operation	–	3
1.7. Fundamentals of anesthesiology and intensive care	–	3
1.8. Wounds	2	–
1.9. Injures	–	3
1.10. General and special issues on surgical infections	2	3
1.11. Basis of oncology	2	3
1.12. Basics of plastic surgery & transplantology	2	–
2. Special surgery	10	33
2.1. Vascular disease. Necrosis, ulcers, fistulas	2	3
2.2. Thyroid diseases	2	–
2.3. Breast diseases	2	3
2.4. Purulent diseases of the lungs and pleura	2	3
2.5. Acute appendicitis	–	3
2.6. Diseases of gallbladder and bile ducts	–	3
2.7. Diseases of pancreas	–	3
2.8. Complications of gastric ulcer and duodenal ulcer	–	3
2.9. Abdominal hernias	–	3
2.10. Ileus	–	3
2.11. Peritonitis	–	3
2.12. Diseases of the rectum and pararectal fat	2	3
Hours total	22	63

EDUCATIONAL MATERIAL

1. GENERAL SURGERY

1.1. Introduction to surgery. Desmurgy

Concept of the surgery. History of surgery development. Deontology in surgery. Development of surgery in Belarus. Objectives and tasks of the discipline "Surgical diseases".

Desmurgy. General principles of bandaging. Headscarf bandages. Sling bandages for head and neck. Adhesive bandages. Adhesive bandages. Bandages for head, neck and limbs.

1.2. Antisepsis and asepsis

Antisepsis. History of surgical antiseptics. Types of modern antiseptics. Aims and methods of mechanical antiseptics: wound cleansing and primary surgical wound treatment. Modern methods of physical antiseptics: wounds and cavities draining, ultraviolet radiation, medical lasers, wound vacuuming, hyperbaric oxygenation, atherapeutic devices. Chemical antiseptics: requirements to chemical antiseptics, groups, methods of use. Biological antiseptic: antibiotics, enzyme therapy, immunotherapy. Principles of antimicrobial therapy. Mixed antiseptic. Principles of antiseptics use.

Asepsis. History of aseptic, its importance in the modern world. Exogenous and endogenous infection. Physical and chemical sterilization. Prevention of air, droplet, contact and implant infection.

Organization of the surgical department. Wards and their equipment. Operating unit, dressing room and procedures room: design and equipment. Cleaning of operating unit and dressing room. Behavior of students and staff in the operating room. Layout and equipment of outpatient surgery department. Surgical instruments, care and sterilization. Dressing material and its basic properties. Preparation for dressing and linen sterilization. Gloves, suturing material, allograft sterilization. Sterility control. Preparation of surgeon's hands and surgical field. The concept of hospital infection. Prevention of HIV infection in surgical departments.

1.3. Bleeding and hemorrhage

Definition, classification, pathogenesis, clinical presentation. Body reaction to bleeding. Factors for spontaneous hemostasis. Methods of temporary and final stop bleeding (mechanical, chemical, physical, biological). Blood loss, its severity determination, management. Causes of death in hemorrhage.

1.4. Transfusion of donor blood, blood products, blood substitutes

Blood transfusion: definition, methods. History of blood transfusion. Isohemagglutination. Blood groups. Rh-Hr antigen system. Methods for determination of blood group and Rh. Donor blood preservation and storage. Blood components. Indications and contraindications for whole blood and blood components transfusion. Quality of preserved donor blood and blood products determination. Tests for individual compatibility, methods and steps of blood transfusion. Errors and complications in blood transfusions, their prevention and treatment. Blood substitutes: classification, characteristics of the main groups,

indications and contraindications for transfusion. Complications of blood transfusion and their prevention and management.

1.5. Surgical examination.

Clinical examination of patients with acute and chronic surgical diseases, oncopathology and injuries. The general idea of modern special diagnostics methods.

1.6. Surgical operation

Types of surgical procedures, their anatomical and physiological background. Minimally invasive surgery.

The preoperative period. Examination of the patient, their preparation for elective and urgent surgery. Patient's monitoring during surgery.

The postoperative period. Postoperative care. Uncomplicated postoperative period. Diagnosis, treatment, prevention of post-operative complications.

1.7 General issues of anesthesiology, resuscitation and intensive care

Local anesthesia: history of development. Pharmacodynamics of anesthetics. Methods of local anesthesia (terminal, infiltration, infiltrative anesthesia by Visniewski, nerve block, intravenous, intra-arterial, intraosseal, spinal). Techniques, indications, contraindications, hazards and complications.

Basis of resuscitation. Tasks of resuscitation. Prevention and treatment of syncope, collapse, traumatic shock. The concept of a terminal state (pregassing, gasping, clinical death). Basic methods of resuscitation. Methods of cardiac defibrillation. Postresuscitation disease.

1.8. Wounds

Definition, classification. Wound types and healing process stages. Morphological and biochemical changes in the wound. General principles of treatment and primary surgical treatment of wounds. Types of sutures (primary, delayed primary, provisionally, secondary). Principles of treatment of infected and purulent wounds. Methods of local wound treatment: physical, chemical, biological. Methods of general treatment. Hypertrophy scars and keloids.

1.9. Surgery of injuries

Injures: definition, classification, concept of manufacturing, agricultural, residential, outdoor, sports, military injuries. The organization of primary care.

Closed injuries. Soft tissue injuries: injury, concussion, compression, tension, break. Traumatic toxicosis. Injures of facial skull, brain, thorax, abdomen and retroperitoneal organs: special features of patient examination, primary care. Traumatic shock: presentation. management.

Burns. Classification, etiopathogenesis, clinical presentation, stages, first aid local treatment. Burn disease: special features of burn shock, management principles.

Frostbite. Classification, etiopathogenesis, clinical presentation, first aid and treatment. Total cooling of the body.

1.10. General and special issues of surgical infection

Surgical infection: etiology, current features of pathomorphosis of purulent surgical infection, inflammation stages, classification.

Acute nonspecific infection. Etiology, pathogenesis, local tissue reaction, general reaction of the organism, treatment.

Certain types of acute purulent diseases. Acute purulent diseases of soft tissue and glandular structures (furuncle, furunculosis, carbuncle, abscess, phlegmon, mastitis, lymphadenitis, felon, erysipelas, erysipeloid). Acute purulent diseases of bones and joints (osteomyelitis, arthritis).

Surgical sepsis. Classification, septic syndromes, pathogenesis, clinical presentation, diagnosis and treatment principles.

Acute specific infection. Anaerobic clostridial and non-clostridial infection: classification, pathogens, pathogenesis, clinical presentation, diagnosis, treatment, prevention. Tetanus: etiology, pathogenesis, clinical presentation, diagnosis, treatment, prevention.

Chronic specific infection. Tuberculosis of peripheral lymph nodes: etiology, pathogenesis, clinical features, diagnosis and treatment. Actinomycosis: etiology, pathogenesis, clinical features, diagnosis and treatment. Syphilis of bones and joints: etiology, pathogenesis, clinical features, diagnosis and treatment.

1.11. Basics of oncology

Organization of medical care for cancer patients in the Republic of Belarus. Precancerous lesions. Benign and malignant tumors. Stages of neoplastic growth. TNM classification of tumors. Clinical, instrumental and morphological methods of tumor diagnostics. Early diagnosis of malignant tumors. Treatment of tumors: surgery, radiotherapy, chemotherapy, hormone therapy, combined. Clinical characteristics of certain types of tumors of epithelial origin, connective, muscular, vascular and nervous tissue.

1.12. Basics of plastic surgery and transplantation

The conception of restorative and reconstructive operations. Auto-, iso-, allo-, xenoplastic surgery and transplantation. Explantation. Replantation. Methods of skin plasty (free, "suitcase handle" technique, microsurgical techniques). Transplantation of cartilage and bone, blood vessels, bone marrow, endocrine glands, heart, lungs, kidneys, liver and pancreas. Biological aspects of organ and tissue transplantation.

2 Special surgery

2.1. Vascular disease. Necrosis, ulcers, fistulas

Diseases of the arteries. Concept of acute and chronic arterial insufficiency. Principles of macro- and microhaemodynamics violations assessment. Causes of acute arterial insufficiency. Pathogenesis and stages of acute arterial insufficiency.

Arterial thrombosis and embolism: clinical presentation, diagnosis, principles of medical and surgical management.

Classification of diseases accompanied by chronic arterial insufficiency (functional and organic). Stages of chronic arterial insufficiency. Concept of "critical" ischemia.

Raynaud's syndrome (disease). Obliterative diseases of lower extremities (atherosclerosis obliterans, thrombangiitis obliterans, aortoarteriitis, diabetic angiopathy): main principles diagnostics, and medical treatment. Methods of surgical treatment, interventional treatment, prevention.

Venous disease. Concept of acute and chronic venous insufficiency. Predisposing causes (diseases). Principles of diagnostics. Ileofofemoral thrombosis, Paget-Shretter syndrome. Pathogenesis. Clinical presentation of phlegmasia alba and

cerulea. Basic principles of diagnostics and management. Types of interventions. Prevention.

Thrombophlebitis of superficial and deep veins of the lower extremities: diagnosis, treatment, prevention.

Stages of various disease (CEAP classification).

Varicose disease of lower extremities: etiopathogenesis, clinical presentation, common symptoms, basics of surgical treatment, role of minimally invasive and endovascular interventions, prevention.

Post-thrombotic syndrome. Classification, etiopathogenesis, clinical presentation, diagnosis, principles of conservative and surgical treatment, prevention.

Lymphatic disorders. Concept of chronic lymphatic insufficiency. Chronic lymphedema (lymphostasis) of extremities: principles of diagnostic and management.

Necrosis. Dry and wet gangrene: etiopathogenesis, clinical presentation, treatment. Bedsores (pressure ulcers): etiopathogenesis, clinical presentation, treatment, prevention. Trophic ulcers (sores): etiopathogenesis, treatment. Fistulas (sinus tracts): classification, diagnosis, treatment.

2.2. Thyroid diseases

Classification of thyroid diseases. Contemporary methods of thyroid gland investigation. The role of autoimmunity in the thyroid gland pathology.

Endemic and sporadic goiter: classification, etiology, pathogenesis, clinical presentation, diagnosis, principles of treatment, prevention.

Diffuse toxic goiter, concept of thyrotoxicosis: classification, etiology, pathogenesis, clinical presentation, diagnosis, medical and surgical methods of treatment, prevention.

Thyroid cancer: classification (morphological, TNM), etiopathogenesis, clinical presentation, diagnosis, treatment (surgical, chemotherapy, radiological), prevention.

2.3. Breast diseases

Classification, methods for breast examination.

Acute suppurative mastitis (lactational): classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment, prevention.

Dishormonal breast dysplasia (cystic-fibrotic mastopathy): classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment, prevention.

Benign tumors of the breast (fibroadenoma, lipoma). Clinical presentation, diagnosis and treatment principles.

Breast cancer: etiology, pathogenesis (risk factors), metastasis pathways, clinical and morphological forms (nodular, diffuse), non-palpable tumor. Methods of breast cancer early diagnosis. Tumor occulta. Principles of management: radical interventions, chemotherapy, radiotherapy. Breast cancer prevention. Breast plastics (mastopexy, reductional mammoplasty, tissue advanced flap, silicone endoprosthesis use).

2.4. Purulent diseases of the lungs and pleura

Classification of suppurative diseases of lungs and pleura. Methods for lungs investigation. Bronchoectatic disease, lung abscess: classification, etiopathogenesis,

clinical presentation, diagnostics, medical treatment, indications for surgery, types of interventions.

Acute suppurative pleurisy (pleural empyema): etiology, classification by etiological factors, by process distribution. Pathway of infection spread in the pleural cavity, clinical presentation, diagnosis, medical and surgical treatment, types of surgical procedures. Types of pyopneumothorax, surgical and medical management.

2.5. Acute appendicitis

Acute appendicitis: classification, etiology, pathogenesis, clinical presentation, diagnosis, specific signs and symptoms, differential diagnosis, principles of management. Clinical presentation of acute appendicitis in children, pregnant women, and elderly patients, and depending on the location of the appendix.

Complications of acute appendicitis (appendicular mass, periappendicular abscess): principles of diagnostics and management.

2.6. Diseases of the gallbladder and extrahepatic bile ducts

Cholelithiasis: definition, clinical forms, etiology, pathogenesis, clinical presentation, diagnosis. Contemporary instrumental methods of bile ducts investigation. Management of cholelithiasis (surgical, medical), indications, contraindications.

Chronic calculous cholecystitis: forms, diagnostics and management

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

Cholelithiasis complications (mechanical jaundice, choledocholithiasis, cicatricial stricture of bile ducts): diagnosis and treatment.

2.7. Diseases of the pancreas

Acute pancreatitis: definition, etiology, pathogenesis, pathology, classification, clinical presentation, diagnosis, medical treatment. Acute pancreatitis complications. Indications for surgical treatment, types of surgical interventions.

Chronic pancreatitis: definition, etiology, pathogenesis, classification, clinical presentation, diagnosis and treatment, prognosis. Pancreatic cyst types, basic principles of diagnostic and management. Pancreatic cancer, principles of diagnostics and surgical treatment.

2.8. Complications of gastric ulcer and duodenal ulcer

Gastric ulcer and duodenal ulcer: etiology, pathogenesis, Johnson's classification, clinical presentation, diagnosis and medical treatment, surgical interventions.

Symptomatic ulcers (hormonal, medication, stress).

Perforative gastric ulcer and duodenal ulcer: pathogenesis, clinical presentation, diagnostic, surgical treatment, types of procedures.

Bleeding gastric ulcer and duodenal ulcer: pathogenesis, clinical presentation, diagnosis and medical treatment, principles of endoscopic haemostasis, types of surgical procedures. Pyloroduodenal stenosis: stages, diagnosis and treatment.

2.9. Abdominal hernias

Definition of abdominal hernia. Elements of abdominal hernia. Anatomical features of sliding hernias. Classification of hernias by origin, localization, clinical course. Etiology, pathogenesis (risk factors and confounding factors), clinical

presentation, diagnosis, treatment. Special features of contemporary surgical hernioplasty (non-tensional, minimally invasive). Abdominal hernia prevention.

Complicated hernias. Strangulated hernia. Types and mechanisms of strangulation (fecal, elastic, retrograde, parietal). Changes in strangulated organ (strangulation furrow, ischemic necrosis). Clinical presentation, diagnosis and treatment. Management of spontaneous and violent reposition of strangulated hernia.

2.10. Acute ileus (intestinal obstruction)

Acute ileus (intestinal obstruction): definition, classification by origin, pathogenesis, anatomical location, clinical course. Examination methods.

Dynamic (spastic, paralytic) ileus. Etiology, pathogenesis, clinical presentation, diagnosis and treatment.

Mechanical ileus (obstructive, strangulation, intussusception). Etiology, pathogenesis, clinical presentation, diagnosis and treatment.

2.11. Peritonitis

Concept of intraabdominal infection. Peritonitis as abdominal sepsis.

Total peritonitis: etiology, pathogenesis, classification by clinical course, localization, totality, microflora and stage, severity; clinical presentation, specific signs and symptoms, diagnosis and surgical treatment principles, special features of postoperative management.

Concept of local intraabdominal infection (intrahepatic and subdiaphragmatic abscess, interintestinal and intrapelvic abscess): diagnosis and treatment principles, role of miniinvasive treatment.

2.12. Diseases of the rectum and pararectal fat

Acute proctitis: etiology, pathogenesis, classification, clinical presentation, diagnosis. Rectal sinuses (chronic proctitis): clinical presentation, diagnosis, treatment.

Hemorrhoids: classification, etiology, pathogenesis, clinical presentation of acute and chronic hemorrhoids and their complications, medical and surgical treatment, role of miniinvasive treatment.

Anal fissure: etiopathogenesis, clinical presentation, diagnosis, treatment.

Rectal polyps, polyposis: etiology, clinical presentation, diagnosis and treatment.

Pilonidal sinus: etiology, clinical presentation, diagnosis and treatment.

Cancer of the rectum: classification, stages, clinical presentation, diagnosis and treatment, types of operations, prognosis.

METHODICAL CARD OF THE DISCIPLINE «SURGICAL DISEASES»

Section, topic №	Section, topic title	# of auditorial hours			Self-education	Control form (#)
		lectons		practical		
		12	30			
5 term						
1.	Introduction to surgery. Desmurgy	–	3	2	Training cases. Presentations during classes. Tests. Quizzes. Written tests.	
2.	Antisepsis and asepsis	2	3	2	Training cases. Tests.	
3.	Bleeding and hemorrhage	–	3	2	Training cases. Tests. Quizzes.	
4.	Transfusion of donor blood, blood products, blood substitutes	2	3	2	Training cases. Presentations during classes. Tests. Quizzes. Written tests.	
5.	Surgical examination	–	3	2	Training cases. Tests. Quizzes.	
6.	Surgical operation	–	3	2	Training cases. Tests. Quizzes.	
7.	General issues of anesthesiology, resuscitation and intensive care	–	3	2	Training cases. Tests. Quizzes.	
8.	Wounds	2	–	2	Training cases. Presentations during classes. Tests. Quizzes. Written tests.	
9.	Surgery of injuries	–	3	2	Training cases. Tests. Quizzes.	
10.	General and special issues of surgical infection	2	3	2	Training cases. Tests. Quizzes.	
11.	Basics of oncology	2	3	1	Training cases. Tests. Quizzes.	
12.	Basics of plastic surgery and transplantation	2	–	1	Electronic tests. Pass-no-pass exam. Rating scale assessment.	
6 term						
1.	Vascular disease. Necrosis, ulcers, fistulas	2	3	2	Training cases. Presentations during classes. Tests. Quizzes. Written tests.	
2.	Thyroid diseases	2	–	2	Training cases. Tests.	

3.	Breast diseases	2	3	2	Training cases. Tests. Quizzes.
4.	Purulent diseases of the lungs and pleura	2	3	2	Training cases. Presentations during classes. Tests. Quizzes. Written tests.
5.	Acute appendicitis	—	3	2	Training cases. Tests. Quizzes.
6.	Diseases of the gallbladder and extrahepatic bile ducts	—	3	2	Training cases. Tests. Quizzes.
7.	Diseases of the pancreas	—	3	2	Training cases. Tests. Quizzes.
8.	Complications of gastric ulcer and duodenal ulcer	—	3	3	Training cases. Presentations during classes. Tests. Quizzes. Written tests.
9.	Abdominal hernias	—	3	3	Training cases. Tests. Quizzes.
10.	Acute ileus (intestinal obstruction)	—	3	3	Training cases. Tests. Quizzes.
11.	Peritonitis	—	3	3	Training cases. Tests. Quizzes.
12.	Diseases of the rectum and pararectal fat	2	3	3	Electronic tests. Pass-no-pass exam. Rating scale assessment.

INFORMATIONAL AND METHODOLOGICAL SECTION

REFERENCES

Basic:

1. *Общая хирургия: учебник. В 2 т. / Г.П. Рычагов [и др.]; под ред. Г.П. Рычагова, П.В. Гарелика. Минск: Выш. шк., 2008. 978 с.*
2. *Рычагов, Г.П. Ситуационные задачи и тестовые вопросы по общей хирургии: учеб. пособие / Г.П. Рычагов, В.Е. Кремень. 2-е изд. Минск : АСАР, 2006. 480 с.*
3. *Gostishchev V. K. General surgery. The manual. М.: Гэотар Медицина, 2003.*
4. *Schwartz S.I., Shires G.T., Spencer F.C., Storer E.H. Principles of surgery. USA: by McGraw-Hill, Inc., 2007.*
5. *Dudley H. Atlas of general surgery. London: Butterworth & Co (Publishers) Ltd, 1981.*

Additional:

6. www.medscape.com

LIST OF RECOMMENDED CONTROL METHODS

For the diagnosis of competencies, the following forms are to be used:

- 1 oral.
- 2 written.
- 3 oral-written form.
- 4 technical form.

Oral competencies diagnostic includes:

- 1 interviews.
- 2 reports on conferences.
- 3 oral tests.
- 4 oral examinations.

Written competencies diagnostic includes:

- 1 tests.
- 2 quizzes.
- 3 examinations.
- 4 training on inpatient medical records.

Oral-written competencies diagnostic includes:

- 1 pass-fail exams;
- 2 exams.
- 3 estimation based on rating system.

Technical competencies diagnostic includes:

- 1 Electronic tests.

LIST OF LECTURES (60 min)**5th term**

1. Introduction to surgery. History of surgery. Surgical care organization.
2. Asepsis. Antisepsis.
3. Transfusion of donor blood. Blood products. Blood substitutes.
4. General issues of traumatology. Traumatic shock. Crush syndrome.
5. Wounds. Primary surgical treatment of wounds.
6. Thermal destruction. Electrical accident.
7. General principles of diagnosis and treatment of acute surgical infection.

Septicemia.

8. Acute and chronic specific surgical infection.

6th term

Basics of anesthesiology

Basics of resuscitation

Surgical operation.

Basics of plastic surgery and transplantation

Basics of oncology

Breast diseases

Diseases of thyroid gland

Diseases of rectum and pararectal fat

LIST OF PRACTICAL LESSONS**5th term**

1. Introduction to surgery. Desmurgy.
2. Asepsis and antisepsis.
3. Bleeding and blood loss.
4. Transfusion of donated blood and blood products, blood substitutes solutions.
5. Surgical patients examination.
6. Surgical operation.
7. Basis of critical care medicine and anesthesiology.
8. Surgery of injuries.
9. General and special issues of surgical infection.

6th term

1. Purulent diseases of lungs and pleura. During lessons 1-8 practice skills are to be studied and trained.
2. Necrosis, ulcers, pressure ulcers, fistulas.
3. Vascular diseases.
4. Acute appendicitis. Gallbladder and bile duct diseases.
5. Diseases of the pancreas.
6. Intestinal obstruction.
7. Complications of gastric ulcer and duodenal ulcer.
8. Hernia. Final term testing.

**PROTOCOL OF CURRICULUM HARMONIZATION UPON
REQUIREMENTS OF OTHER DEPARTMENTS**

Title of discipline to be harmonized with	Department	Amendments to the curriculum of the high education establishment	Decision of the writer (department), date, protocol #
1. Topographic anatomy and operative surgery	Topographic anatomy and operative surgery department	Not submitted	
2. Extremal medicine	Military therapy department	Not submitted	

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

Dean of the Medical Faculty of International
Students

_____ 2015



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Methodologist of Educational Institution
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