

CATALOG OF COMPETENCE
on specialty "Doctor Surgeon"
POSTGRADUATE LEVEL

Catalog of competencies (postgraduate level) on the specialty "Doctor surgeon" developed by a working group consisting of: Kalzhikeev A.M. (Chairman), Toigombaev A. T. (Deputy Chairman), Sopuev A. A., Mambetov A. K., Sydygaliev K. S., Samakov A. A., Mamatov N. N., Ashinaliev A. A., Maksut uulu E., Aitbaev S. A.
Materials were used in the development of the competence catalog:

1. Order of the Ministry of Public Health of the Kyrgyz Republic No. 551 of October 27, 2010 "On the organization of emergency medical care departments in SP, PS, NC, SRI of pilot medical organizations on the basis of emergency departments.
2. Clinical protocol "Bleeding from the upper gastrointestinal tract".
3. Clinical protocol "Acute appendicitis".

The catalog is reviewed:

Head of the Department of KSMITandPD named after S. B. Daniyarov, Doctor of Medical Sciences, Professor B. S. Niyazov, Doctor of Medical Sciences, Professor of the Department of Hospital Surgery with the course of operative surgery named after Academician M. M. Mamakeev Alybaev E. U.

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Explanatory note

The restructuring of all aspects of the life of our society, which primarily concerns the quality of medical care for the population, dictates the need to improve the professional level of all health workers, and, above all, in the most rapidly developing direction, which is surgery. These changes dictate the need to create a postgraduate training program for doctors in surgery.

Special attention should be paid to the use of the latest technologies in surgery, such as minimally invasive and endoscopic surgery, endovascular interventions, modern X-ray, radioisotope and ultrasound research methods, extracorporeal detoxification methods, etc.

Surgery is one of the main sections of clinical medicine that studies diseases and injuries, the diagnosis and treatment of which uses methods and techniques that are more or less accompanied by a violation of the integrity of the integumentary tissues of the body. In the system of medical education, it occupies one of the main places. The study of surgery has its own characteristics, including not only theoretical knowledge of nosological forms, diagnosis and treatment, but also a large amount of practical skills. At the present stage of medical development, successful work in surgery requires deep knowledge of a number of related disciplines: anesthesiology and resuscitation, oncology, urology, endoscopy, as well as many other fundamental and applied sciences (normal and pathological anatomy and physiology, clinical pharmacology, general pathology, etc.). Thematic improvement is a form of additional professional education.

The success of modern surgery is associated with the achievements of natural science and technology, with the development of anesthesiology, resuscitation, and hemotransfusiology, which allowed the use of surgical methods of treatment for diseases of hard-to-reach and vital organs (heart, lungs, major vessels, brain and spinal cord).

CHAPTER 1. GENERAL PROVISIONS

1.1. Definition of the terms "doctor surgeon".

A surgeon is a doctor who deals with diseases that require surgical methods of treatment. The competence of the surgeon includes the study of diseases and injuries for which surgical methods are used that violate the integrity of the tissues.

Surgery (Greek *cheirurgía*, from *chéir*-hand and *érgon*-action, work), a field of medicine that studies diseases, the main method of treatment of which is surgery, and develops techniques, methods and techniques for performing operations.

The profession of a surgeon is a profession of mainly intellectual work, which is more connected with the reception and processing of information. In the work of a surgeon, the results of his intellectual reflections are important. But, at the same time, physical labor is not excluded.

The surgeon must be a highly qualified specialist with a system of theoretical knowledge and practical skills, and be ready for independent professional activity of the doctor-surgeon in the institutions of practical health care.

1.2. Basic principles of medical practice of a surgeon

The doctor surgeon uses the following principles in his work:

Provides qualified medical care in their specialty, using modern methods of prevention, diagnosis, treatment and rehabilitation, allowed for use in medical practice.

Determines the patient's management tactics in accordance with the established rules and standards.

Develops a plan for the examination of the patient, specifies the scope and rational methods of examination of the patient in order to obtain complete and reliable diagnostic information in the shortest possible time.

On the basis of clinical observations and examinations, anamnesis collection, data from clinical, laboratory and instrumental studies, the diagnosis is established (or confirmed).

In accordance with the established rules and standards, prescribes and controls the necessary treatment, organizes or independently conducts the necessary diagnostic, therapeutic, rehabilitation and preventive procedures and measures. In the hospital, the patient is examined daily.

Provides consulting assistance to doctors of other departments of the health care center in their specialty.

1.3. Purpose of the document

This catalog of competencies should become part of the regulations for postgraduate training of the "Surgeon Doctor".

Based on this catalog the following are:

Determined:

- the purpose and content of postgraduate training of a surgeon;
- the level of professional competence, knowledge and practical skills of a surgeon;

Developed by:

- surgeon training programs;
- criteria for assessing the quality of training of a surgeon;
- standard requirements for the certification of a surgeon;
- standards for the examination, treatment, rehabilitation and follow-up of patients;

Organized by:

- learning process;
- professional orientation of medical graduates;

Conducted by:

- attestation of surgeons

1.4. Users of the document

In accordance with the purpose of the document, the users of this document are:

- Ministry of Public Health of the Kyrgyz Republic
- Educational organizations
- Health organizations
- Professional associations
- Medical practitioners
- Residents
- Other stakeholders

Chapter 2. General tasks

This chapter lists the general competencies that a surgeon should have. The surgeon should be a professional not only in his field, but also should be a manager, a specialist in communication skills, a promoter of a healthy lifestyle, a scientific researcher.

2.1. Doctor surgeon, as a medical specialist/expert

A surgeon is a doctor who has received special multidisciplinary training to provide specialized medical care. As a specialist, he provides care to patients within the limits of his professional competence, observing the principles of surgery.

A surgeon is a noble and responsible profession. Often, only surgical intervention, which in professional language is called operative, can save the most valuable thing - human life.

Appendicitis, tumor, phlegmon, plastic surgery-all this is done by a surgeon, which not every student of a medical university can become. In addition to deep theoretical knowledge and a firm hand, you need another quality — sincere compassion and a desire to help.

The main task of the surgeon is to establish an accurate diagnosis, find out the cause of the disease, perform the operation directly, and, of course, help in the complete recovery of the body.

Surgery, like medicine in general, is an ancient craft. Even in the Stone Age, people independently tried to treat themselves, including with the help of internal penetration. After the advent of anesthesia, surgery as a branch of medicine began to develop very rapidly.

General competencies

As a specialist, a surgeon is able to:

- create a trusting relationship between the doctor and the patient, which is an important first step to overcoming the disease.
- take care of the health of patients and society (assess the risks to the health of patients, give advice on maintaining and promoting health, maintain a healthy lifestyle, both physically and mentally, recommend screening tests and vaccination in accordance with national protocols);

- advise, accompany and care for patients in cooperation with representatives of other specialties, while respecting their right to self-determination;
- conduct anamnesis collection;
- conduct an examination (clinical examination) of patients;
- interpret the information obtained during the collection of anamnesis and clinical examination, establish a preliminary and differential diagnosis and develop a patient management plan using the results of an objective examination;
- perform routine tests and additional procedures taken in surgery;
- assign appropriate diagnostic and therapeutic measures, explain their essence to the patient and interpret the results;
- take appropriate and long-term care of patients with chronic, incurable, progressive surgical diseases;
- advise patients and their families on the formation of a healthy lifestyle, prevention of diseases;
- perform the necessary diagnostic and therapeutic measures, taking into account the cost/reasonable utility ratio and guarantee the safety of patients, applying the principles of efficiency, expediency and cost-effectiveness;
- store and protect health information appropriately;
- conduct sanitary and educational work.
- observe the rules and principles of medical ethics and deontology.
- Competently and in a timely manner executes orders and instructions of the management of the institution, as well as regulatory legal acts on their professional activities.

A surgeon should know:

- Fundamentals of health legislation and policy documents defining the activities of health authorities and institutions;
- Organization of surgical care in the republic,
- Organization of emergency and emergency services;
- Fundamentals of topographic anatomy of the anterior abdominal wall and abdominal cavity, retroperitoneal space, pelvis, chest, neck, and limbs;
- Basic questions of normal and pathological physiology of organs digestion, respiration, cardiovascular and genitourinary systems; the relationship between the functional systems of the body and the level of their regulation;
- Etiology of tumors, morphological manifestations of tumor processes, morphological classification of tumors, mechanisms of carcinogenesis at the level of cells, organs, and organisms;
- Prevention and treatment of shock and blood loss;
- Regularities of the course of the wound process and the principles of its therapy;
- The main types of benign and malignant tumors of various localization, their clinical symptoms, diagnosis, principles of treatment and prevention;

- The most important types of precancerous conditions and diseases, their clinical symptoms and methods of diagnosis;
- Physiology and pathology of the hemostatic system, indications and contraindications for blood transfusion and its components;
- Fundamentals of water-electrolyte metabolism and acid-base state of the blood, possible types of their disorders and principles of treatment;
- General and special research methods in the main sections of surgery;
- Fundamentals of the use of endoscopy and radiation diagnostics methods in various sections of surgery;
- Various methods of histological and cytological examination in oncology;
- Basic principles of asepsis and antiseptics in surgery;
- Fundamentals of immunology and genetics in surgery;
- Principles, techniques and methods of anesthesia in surgery, the basics of intensive care and resuscitation;
- Fundamentals of infusion therapy in surgery, characteristics of blood products and blood substitutes;
- Fundamentals of pharmacotherapy in surgery and related fields of medicine;
- Principles of preoperative preparation and postoperative management of patients, methods of rehabilitation;
- Fundamentals of the pathogenetic approach to treatment in surgery and related fields of medicine;
- Fundamentals of physical therapy and physical therapy, indications and contraindications to spa treatment; fundamentals of rational nutrition and principles of dietary therapy in a surgical clinic;
- Issues of temporary and permanent disability, medical and labor expertise in surgery and related fields;
- Fundamentals of the organization and conduct of medical examinations in surgery;
- Equipment and equipment of operating rooms and intensive care units, safety precautions when working with equipment, surgical instruments used in open, endoscopic surgical interventions.

2.2. Communication skills

The surgeon manages the relationship with the patient and their family, contact persons, and other specialists involved in the treatment effectively and in accordance with the situation. He bases his decisions and communication of information on mutual understanding and trust.

Competencies

The doctor surgeon is able to:

- build trusting relationships with patients, their families, and other close relatives;

- receive important information from patients and their environment, discuss it, and share elements of the knowledge gained, taking into account the patient's situation;
- communicate the risks and benefits of diagnostic and therapeutic measures in a form that is understandable to the patient and obtain informed consent;
- document the information received during consultations / home visits and transmit it as soon as necessary;
- empathize by reporting bad news and responsibly report complications and mistakes.

2.3. Skills of working in cooperation (in a team)

The surgeon collaborates with patients and their families, contact persons and other treatment participants from a wide variety of professional groups, taking into account their experience and opinions.

Competencies

The doctor surgeon is able to:

- cooperate with other specialists and experts from other professional groups, with nurses, especially in providing long-term care to patients with various diseases;
- recognize differences of interest, accept other opinions, and avoid conflicts and resolve them through cooperation.

2.4. Management skills (manager)

The surgeon becomes a member of the healthcare system and contributes to the optimization of the work of the healthcare organization in which he works. It carries out its management tasks within the framework of its inherent functions. It sets priorities and consciously decides how to use limited resources in the field of healthcare.

Competencies

As a manager, a surgeon is capable of:

- successfully manage their professional activities and take on management tasks that correspond to their professional position;
- find a balance between your professional and private activities;
- effectively use limited health resources for the benefit of patients, taking into account efficiency, adequacy and cost-effectiveness;
- evaluate and use relevant information for
- patient care;
- ensure and improve the quality of medical care and
- patient safety.

2.5. Health promotion and healthy lifestyle promotion skills

The surgeon can promote a healthy lifestyle among patients and the public. It can help patients navigate the healthcare system and get appropriate care in a timely manner.

Competencies

The surgeon is able to:

- describe the factors that affect human and social health and promote the preservation and promotion of health;
- recognize problems that affect the health of patients and take the necessary measures.

2.6. Research Scientist

During his professional activity, the surgeon acquires new skills in his profession, monitors their development and promotes them.

Competencies

As a research scientist, a surgeon is able to:

- constantly improve the skills aimed at their professional activities;
- critically understand specialized medical information and its sources and take it into account when making decisions;
- inform patients, medical students, other doctors, government officials, and others who actively care about their health, and support them in their actions to learn;
- promote the development, dissemination and introduction of new knowledge and methods in surgical practice.

2.7. Knowledge in the field of professional ethics

The surgeon carries out his practical activities in accordance with ethical norms and principles, quality standards of medical care and regulatory legal acts in the field of health care in the Kyrgyz Republic.

Competencies

As a professional, the surgeon is able to:

- carry out their profession in accordance with high quality standards, demonstrating a responsible and caring attitude to patients;
- practice ethically and responsibly, respecting the legal aspects of the activities of medical professionals.

The surgeon must be able to carry out:

- diagnosis and differential diagnosis of major surgical diseases;
- comprehensive treatment of patients in inpatient and outpatient settings, taking into account the age, severity of the disease, the presence of concomitant pathology;
- primary and secondary prevention and rehabilitation of patients after surgical interventions and injuries;
- basic diagnostic and therapeutic procedures;
- routine operations for major surgical diseases of various areas of the human body, vascular diseases, purulent surgical infection of soft tissues, bones and joints;

- selection of the method of anesthesia and various methods of local anesthesia;
- preoperative and postoperative preparation of patients;
- prevention of complications in surgical patients at the stages of preoperative preparation, during surgery, in the early and late postoperative period;

The surgeon should be able to:

- conduct a comprehensive clinical examination of the patient and, on this basis, determine: a preliminary diagnosis, the severity of the condition, urgent measures, a plan for additional examination, including consultations with other specialists, laboratory and instrumental studies, avoiding unjustified and dangerous, indications and terms of hospitalization, working capacity;
- verify and / or clarify the referral diagnosis in patients, the necessary medical documentation;
- use deontological skills in order to establish positive psychological contact with the patient;
- determine the patient's management tactics depending on the nature and severity of the disease: only observation, conservative therapy in the first 24 hours, emergency surgery, inviting other specialists, hospitalization or moving the patient to another department or clinic;
- determine the indications and contraindications for surgical treatment;
- choose the method of surgical aid, taking into account the severity of the patient's condition, age, presence and nature of concomitant diseases;
- conduct preoperative preparation and postoperative period;
- to receive patients in a polyclinic and perform outpatient operations;

Chapter 3. Special tasks (professional competencies)

Types of activities of a surgeon

A surgeon in his specialty provides qualified medical care, using modern methods of diagnosis, prevention, treatment and subsequent rehabilitation of patients:

- in accordance with the established rules and standards, selects the tactics of patient management, develops a plan for his examination;
- specifies the scope and methods of examination of the patient to obtain a reliable and complete diagnosis of the disease in the shortest possible time;
- based on the collected data, it makes a diagnosis, as well as prescribes and performs the necessary conservative or surgical treatment and procedures;
- conducts a daily check-up in the patient's hospital;
- performs daily bandages for operated patients;
- changes the treatment plan as needed;

- coordinates the correctness of diagnostic and therapeutic procedures, dressings, as well as the operation of equipment and equipment, tools, medicines, reagents;
- promptly and competently executes orders, orders and instructions of the management of the institution;
- complies with internal regulations;
- complies with the rules of labor protection, industrial sanitation and safety requirements.

In accordance with the types of activities of a surgeon, professional competencies are organized into the following categories:

3.1 Common Symptoms and syndromes (List 1)

3.2 Common Diseases and Conditions (List 2)

3.3 General Problems (List 3)

3.4 Medical manipulations (List 4)

3.5 Emergency Conditions (List 5)

3.1. - Common symptoms and syndromes in the practice of a surgeon

(List 1)

Chest pain
Lower back/Back pain
Pain in the groin area
Pain in the extremities
Diarrhea
Dysuria and changes in urine
Jaundice
Gastrointestinal bleeding
Constipation
Heartburn, belching
Itchy skin
Hemoptysis
Hyperthermia
Chills
Bloating
Edematous syndrome, ascites
Loss of appetite
Weight loss
Weakness
Nausea and vomiting
Trophic ulcers of the lower extremities
Shortness of breath
Tachycardia

3.2. List 2 – the most common diseases and conditions in surgical practice

The list of listed diseases and conditions is not exhaustive. Tasks are classified according to the competencies that must be achieved by the end of training in this discipline.

The following gradation is used to indicate the level of competence:

Level 1 - indicates that the surgeon is guided in this clinical situation, makes a preliminary diagnosis and redirects the patient to the secondary or tertiary level for the final verification of the diagnosis and the selection of therapy; subsequently, it monitors the prescribed therapy (medical examination)

Level 2 - indicates that the doctor surgeon can independently diagnose and treat the majority of patients with this disease or condition accordingly; determine the indications for hospitalization if necessary.

The letter "**H**" - means that the condition or disease is urgent and indicates the need for emergency diagnosis and / or treatment. The surgeon is able to assess the patient's condition and begin to provide emergency care and organize urgent hospitalization.

OBSTETRICS AND GYNECOLOGY

Condition / disease	Level	H
Postpartum bleeding	2	H
Acute abdomen in gynecology	2	H
Peritonitis, septic complications	1	H
Omission\Pelvic organ prolapse	1	H
Diseases of the mammary glands	1	

NEONATOLOGY

Condition / disease	Level	H
Jaundice of newborns	1	H
Acute and chronic eating disorders	2	H
Ulcerative non-specific colitis	1	
Irritable bowel syndrome	1	
Congenital heart defects	1	H

Internal diseases

Respiratory diseases	Level	H
Pleurisy (dry and exudative)	1	
Suppurative diseases: bronchiectatic disease, abscess, lung gangrene, pleural empyema	1	H
Pulmonary embolism / lung infarction	1	H
Atelectasis of the lungs	1	H
Pneumothorax, including strained pneumothorax	1	H
Lung cancer	1	
Parasitic lung diseases	1	H
Diseases of the circulatory system	Level	H
Acquired heart defects	1	
Varicose veins, thrombophlebitis, deep vein thrombosis and trophic ulcers of the extremities	1	
Splenomegaly	1	
Peripheral vascular diseases(obliterating endoarteritis, obliterating atherosclerosis)	1	H
Diseases of the digestive system	Level	H
Dysphagia (achalasia, esophageal cardiospasm, etc.)	1	
Chronic gastritis; duodenitis	2	
Gastroduodenal ulcer	2	

Gastroesophageal reflux disease (GERD)	2	
Gastrointestinal bleeding	1	H
Chronic inflammatory bowel diseases, including ulcerative colitis, Crohn's disease	1	
Diseases of the gallbladder and VD (chronic non -calculous cholecystitis, biliary dyskinesia and gallbladder, post-cholecystectomy syndrome)	2	
Chronic pancreatitis	2	
Acute hepatitis of non-viral etiology	1	H
Cirrhosis of the liver. Portal hypertension syndrome	1	
Diseases of the urinary system	Level	H
Urolithiasis / renal colic	1	H
Acute urinary retention	1	H
Prostatitis (acute and chronic), uncomplicated	2	
Diseases of the endocrine system	Level	H
Diabetes mellitus	2	H
Metabolic syndrome	1	
Thyroid diseases	1	

SKIN DISEASES

Condition / disease	Level	H
Fungal skin diseases	1	H
Shingles	1	H
Erysipelas	1	H
Pyoderma	1	H

SURGICAL DISEASES

Condition/disease	Level	H
Acute cholecystitis	1	H
Acute pancreatitis	1	H
Liver abscess	1	
Acute abdomen	1	H
Skin injuries	2	
Diseases of the rectum	1	
Fractures (immobilization)	2	H
Burns and frostbite	1	H
Purulent diseases, wound infection: <ul style="list-style-type: none"> • furuncle, carbuncle, abscess, phlegmon, • lymphadenitis, lymphangitis, paronitium, hydradenitis 	2	
External bleeding	1	H
Acute internal bleeding	1	H
Traumatic shock	1	H
Dislocations	1	H
Abdominal hernias	1	
Fistulas	1	
Mastitis	2	H

Acute arterial-venous obstruction	1	H
Ingrown toenail	1	
Parasitic diseases of the lungs and abdominal organs	1	
Intestinal obstruction	1	H
Acute appendicitis	2	H
Peptic ulcer of the stomach and 12 n of the intestine	1	H
Mediasthenitis (primary and secondary)	1	H
Burns	1	H

PALLIATIVE CARE

Condition / disease	Level	H
Pain syndrome	2	H
Other symptoms (constipation, shortness of breath, nausea and vomiting, cachexia)	2	H
Bedsore and non-healing wounds	2	
The process of dying and help in the last stage of life	2	
Communication with the dying person and his relatives	2	
Help with grief and bereavement	2	

PUBLIC HEALTH PROTECTION

	Level
Immunoprophylaxis	2
Prevention of diseases (primary, secondary, tertiary), screening programs	2
Healthy lifestyle (smoking cessation, restriction of intake alcohol, physical activity, rational nutrition, personal hygiene)	2
Training of the patient on the fight against risk factors and the basics of healthy lifestyle	2
Violence and neglect against the elderly	2
Occupational health	2
Psychohygiene and social adaptation in the family and in the team	2
Maintaining accounting records, statistical analysis	2
Medical documentation of violence, torture and ill- treatment	2

3.3 GENERAL PATIENT PROBLEMS

	Level
Difficult patient/Aggressive patient	2
Domestic violence, issues of cohabitation	2
Child abuse	2
Disability/disability	2
Suicide	2
Assault/sexual assault	2
Bad News message	2
Crisis (loss of loved ones, divorce, job loss, life changes, stressful situations)	2
Gender issues	2

Problems of adolescence	2
Post-transplant conditions	1

3.4 PERFORMING MEDICAL MANIPULATIONS (practical skills)

A doctor surgeon should be able to perform the following independently

General manipulations:

- Injections (i / m, I / v, n / a).
- Determination of blood type, Rh factor
- Be able to interpret the results of the conclusions of instrumental studies (X-ray, ultrasound, echocardiography, EGDS).
- Stopping external bleeding.
- Glucometry, a test for glucose tolerance.
- Aerosol inhalation technique using spacers, nebulizers.
- Sputum collection technique for cytology and 3-fold MBT bacterioscopy.
- Measurement of blood pressure.
- Maintenance of a permanent urinary catheter.
- Gastric lavage.
- Finger examination of the rectum and prostate.
- Elimination of coprostasis (finger and enema).
- Collection of material for microscopic, bacteriological studies (from the throat, nose, wounds, rectum, etc.)
- Skin scraping for mites and fungal diseases.
- Use personal protective equipment (anti-plague suit type 1)

Manipulations for emergency care:

- Cardiopulmonary resuscitation:
- Indirect heart massage
- Mouth-to-mouth, mouth-to-nose breathing
- Restoration of airway patency
- Using the Ambu bag
- Tongue fixation and duct insertion
- Defibrillation
- Stopping external bleeding
- Heimlich's Reception
- Direct laryngoscopy
- Tracheostomy
- Drainage of the pleural cavity
- Laparocentesis

3.5 PROVISION OF EMERGENCY MEDICAL ASSISTANCE.

A surgeon should be able to independently diagnose and provide emergency care at the pre-hospital stage, as well as determine the tactics of providing further medical care in the following urgent conditions - timely hospitalization and referral to a specialist for consultation

1. Shock (anaphylactic, toxic, traumatic, hemorrhagic, cardiogenic, hypovolemic, septic, etc.).
2. Fainting. Collapse.
3. Coma (traumatic, anemic, diabetic, brain, liver, uremic, unclear etiology, etc.).
4. Acute respiratory failure.
5. Quinke's edema.

6. Open, closed, valvular pneumothorax.
7. Pulmonary embolism.
8. Acute heart failure.
9. Acute cardiac arrhythmias and conduction disorders.
10. Hypertensive crisis.
11. Unstable angina.
12. Myocardial infarction.
13. Hepatic and renal colic.
14. DIC syndrome.
15. Bleeding.
16. Acute urinary retention.
17. Phimosi, paraphimosi.
18. Acute liver failure.
19. Acute abdomen.
20. Acute disorders of cerebral circulation
21. Pulmonary edema.
22. Edema of the brain.
23. Convulsive states, epileptic status.
24. Chemical and thermal burns, frostbite.
25. Electric shock, lightning, heat and sunstroke.
26. Poisoning.
27. Drowning, suffocation.
28. Thyrotoxic crisis.
29. Clinical death.
30. Acute arterial and venous obstruction.

Special knowledge and skills:

A specialist surgeon should know the prevention, diagnosis, clinic and treatment, be able to diagnose and provide the necessary assistance in the following emergency conditions:

- acute blood loss, profuse bleeding in surgical or gynecological diseases, traumatic injuries;
- peritonitis of various etiologies;
- injuries to the limbs, including bone fractures, signs of damage to the main blood vessels;
- tense pneumothorax and hemothorax;
- asphyxia of various nature, acute respiratory failure;
- acute cardiovascular failure;
- comatose states of various natures.

A specialist surgeon should be able to diagnose and treat the following diseases:

- acute appendicitis;
- peptic ulcer of the stomach and duodenum;
- perforation of gastroduodenal ulcers, acute and recurrent ulcerative gastroduodenal bleeding;
- bleeding from the upper gastrointestinal tract in acute ulcers, varicose veins of the esophagus and stomach, Mallory-Weiss syndrome;
- uncomplicated and pinched abdominal hernias;
- acute and chronic intestinal obstruction of various etiologies;
- acute and chronic calculous and calcareous cholecystitis;
- cholangitis and mechanical jaundice of various etiologies;
- acute and chronic pancreatitis,
- gastric, intestinal, biliary, pancreatic, and mixed external
- and internal fistulas;

- open and closed trauma of the abdominal and thoracic cavities;
- varicose veins of the lower extremities, acute and chronic thrombophlebitis and phlebothrombosis, venous insufficiency, lymphostasis;
- obliterating diseases of the arteries of the extremities, atherosclerotic and diabetic gangrene;
- purulent diseases of soft tissues (abscess, phlegmon, furuncle, carbuncle, panaritium, hydradenitis, mastitis, paraproctitis, erysipelas);
- acute and chronic osteomyelitis;
- burns and frostbite, electric trauma;
- ectopic pregnancy;
- ovarian apoplexy;
- acute urinary retention;
- renal colic, acute pyelonephritis, anuria.

A specialist surgeon should be able to perform the following operations and manipulations:

- venesection, intravenous infusions, blood transfusion;
- bladder catheterization;
- stomach probing;
- enemas;
- laparocentesis;
- puncture of the posterior vaginal arch;
- stop bleeding;
- indirect heart massage, artificial respiration;
- tracheostomy;
- appendectomy;
- hernia repair;
- suturing of the perforation of the stomach and intestines applying gastro-and ejunostomy;
- application of gastroenteroanastomosis;
- elimination of small bowel and large bowel obstruction, superimposition colostomy;
- small bowel resection with end-to-end and side-to-side anastomosis;
- sanitation and drainage of the abdominal cavity in peritonitis;
- cholecystostomy, cholecystectomy, external drainage of the common bile duct;
- stopping intra-abdominal bleeding;
- splenectomy;
- suturing of liver wounds;
- hemorrhoidectomy;
- opening of abscesses and phlegmon;
- amputation of limbs;
- epicystostomy overlay.

List of practical skills

1. Methods of examination of patients (anamnesis, examination, palpation, percussion, auscultation, identification of specific symptoms and symptom complexes).
2. Maintaining medical records.
3. Surgical medical examination.
4. The technique of blood transfusion, and conducting tests for compatibility, determining the group and Rh-affiliation.
5. Methods of stopping external bleeding.
6. Emergency care for anaphylactic shock.
7. Resuscitation in case of sudden cardiac arrest in patients.
8. Artificial respiration technique.
9. Hardware artificial ventilation of the lungs.

10. Puncture of the posterior arch.
11. Emergency care for pancreatitis.
12. Catheterization of the bladder.
13. Providing assistance for renal colic.
14. Assistance in acute blood loss.
15. Emergency care for diabetic and hypoglycemic comas.
16. Technique of appendectomy surgery.
17. The technique of drainage and tamponing of the abdominal cavity.
18. Technique of suturing a perforated ulcer of the stomach and 12-p. intestine.
19. Technique of gastric resection, gastrostomy, pyloroplasty.
20. The technique of conservative stopping of bleeding from varicose veins of the esophagus.
21. Technique of operations for strangulated hernias.
22. Technique of surgery for phlegmon of the hernial sac.
23. Technique of laparotomy.
24. The technique of applying a colostomy.
25. The technique of the operation for inversion and nodulation.
26. Technique of surgery for adhesive intestinal obstruction.
27. The technique of applying the eyunostomy.
28. Technique of intestinal resection and inter-intestinal anastomosis.
29. Methods of treatment of postoperative intestinal paresis.
30. Operative accesses for local and diffuse peritonitis.
31. Technique of revision of the abdominal cavity.
32. Technique of peritoneal dialysis in peritonitis.
33. The technique of cholecystostomy.
34. Technique of cholecystectomy.
35. Technique of choledochotomy and drainage of the choledoch.
36. Technique of cholecystoenteroanastomosis and choledohoduodenoanastomosis.
37. Technique of surgical treatment of acute pancreatitis.
38. Technique of surgical treatment of ectopic pregnancy.
39. Technique of examination of patients with varicose veins of the extremities.
40. Technique of operations for varicose veins of the lower extremities.
41. Technique of surgical treatment of hemorrhoids.
42. Technique of surgical treatment of perianal thrombosis.
43. Technique of operations for paraproctitis and coccygeal cyst.
44. Technique of primary surgical treatment of wounds.
45. First aid for spinal fractures.
46. Technique of operations in purulent processes of soft tissues.
47. Technique of operations for osteomyelitis.
48. Technique of operations for panaritria, purulent tendovaginitis, phlegmon and abscesses of the hand.
49. Diagnosis of acute arterial obstruction of the main vessels of the extremities.
50. Technique of vascular suture.
51. Diagnosis of obliterating atherosclerosis and endarteritis.
52. The technique of laparocentesis.

Professional skills

№	Name of the skill	Level Mastering *	Quantity
1.	Appendectomy	3	20-50
2.	Hernia resection	3	5-20

3.	Cholecystectomy	3	3-10
4.	Hemorrhoidectomy	3	5-20
5.	PST of the wounds	3	20-50
6.	Autopsy, sanitation and drainage of purulent processes(abscesses, phlegmon, panaritita, mastitis, etc.)	3	20-50

7.	Suturing of a perforated ulcer	3	1-5
8.	Pyloroplasty	2	1-5
9.	Resection of the small intestine	2-3	1-5
10.	Operations for intestinal obstruction	2-3	10-20
11.	Operations for injuries of the abdominal cavity and chest <ul style="list-style-type: none"> • thoracocentesis, drainage of the pleural cavity by Bulau for pneumothorax and hematorax • diagnostic laparocentesis (intra-abdominal bleeding) • laparotomy suturing of small and large intestine wounds, suturing of stomach rupture 	2-3	10-20
12.	Operations for peritonitis	2-3	1-5
13.	Lung operations (thoracotomy, lobectomy of the lung, opening and draining of the lung abscess)	2-3	1-2
14.	Operations for phimosis and paraphimosis	3	30-50
15.	Pleural punctures	3	30-50
16.	Laparocentesis	3	10-20
17.	Puncture and other types of biopsies	2-3	1-5
18.	Finger examination of the rectum	3	60-100
19.	Ability to evaluate the data of laboratory, biochemical, radiological, ultrasound, CT and other studies	3	120-200

*Note: **

Level 1-Professional orientation;

Level 2-performing individual stages of the operation, manipulations under the supervision of an experienced specialist;

Level 3 – the ability to independently perform operations and other techniques.

Surgeon during training:

- supervises patients with a complete medical history and observation during the entire time of stay in the hospital – at least 70

- on duty in the hospital (at least 2 times a month)
- on duty in the emergency department-at least 2 times a week

Information about the work carried out is given in the diary of the surgeon, where it is recorded:

1. list of supervised patients with indication of the main diagnosis, date of curation;
2. list of emergency surgical patients (diagnosis, date of curation);
3. list of performed diagnostic tests;
4. assistance in operations;
5. independent operations;
6. participation in conferences, meetings of scientific societies (presence, speech, report);
7. participation in pathoanatomical autopsies;
8. list of the studied literature;
9. information about hospital duties

Chapter 4. Regulations on the examination/attestation

The purpose of the exam / attestation is to determine the level of knowledge and practical skills of a surgeon trained in the specialty of a surgeon with compliance with the competence catalog.

Composition of the examination committee:

- 2 representatives of Group A clinics»
- 1 representative of group "B" or "C" clinics»
- 2 representatives of the FPMO
- 2 representatives of the PMA

Tasks of the exam /attestation commission:

1. Organization and conduct of the exam / certification
2. Conducting the exam and reporting the result
3. Review and correct exam questions as needed

Filing an appeal. The candidate may challenge the composition of the expert group. An appeal must be filed before the exam begins. If approved, the exam is postponed for a minimum of three months, up to a maximum of 6 months. A new expert group should be appointed in advance.

Exam Structure:

Part 1: a structured oral exam based on a discussion of clinical cases with minimal criteria for results determined in advance (the examiner uses case descriptions, examination results, X-rays, functional examinations from 60 to 90 minutes)

Part 2: written exam with multiple choice answers (100 questions in three hours)

Admission to the exam:

Graduate of the postgraduate educational program in surgery.

Exam/attestation evaluation criteria:

The assessment of each part of the exam, as well as the final grade, is given with the mark "passed" or "failed". The exam is successful if both parts of the exam are passed.

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