



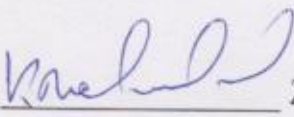
SOUTH KAZAKHSTAN
**MEDICAL
ACADEMY**

EDUCATIONAL PROGRAM OF RESIDENCY

**7R01136
«GENERAL SURGERY»**

Shymkent, 2025y.

The educational program of the residency 7R01136 "General Surgery" was developed by the Department of General Surgery.

Head of the Department, Associate Professor  Zhumagulov K.N.

Protocol № 11 от «25» 06 2025y.

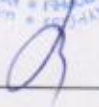
Representative of practical healthcare:

Deputy Chief Physician
on the surgical part,
City Clinical Hospital No. 1



Sadykov T.K.

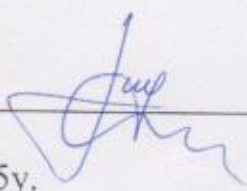
Discussed at the meeting
of the Surgical Attestation Commission
Chairman of the Attestation Commission,
Associate Professor

 Kaldygozova G.E.

Protocol № 4 от «21» 04 2025y.

Approved by the Clinical Council

Chairman, Professor



Nurmashev B.K.

Protocol № 8 от «25» 04 2025y.

Approved by the Academic Council

Protocol № 13 от «02» 05 2025y.

ОҢТҮСТІК-ҚАЗАҚСТАН MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ			SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
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Educational program 7R01136 General Surgery			

Educational program passport

1. The mission of the educational program: To be a recognized leader in the training of highly specialized, competitive surgeons.

Duration of study: 2 years

Qualification awarded upon completion of study – doctor-surgeon.

2. The purpose of the educational program: Training of a highly qualified specialist doctor-surgeon who independently provides qualified medical care for various conditions and diseases that require surgical accommodation.

3. Rationale for the educational program: Achieving a high quality of postgraduate medical education by presenting mandatory requirements for the level of training of students in residency in surgery; Regulation of the educational process and the creation of a system for monitoring the effectiveness of the work of educational and scientific organizations that train residents in surgery; Streamlining the rights and responsibilities of students in residency, stimulating independent educational and practical activities of residents in surgery; ensuring the integration of practice and theory; to consolidate the skills of basic medical diagnostic and preventive interventions; improvement of practical skills according to modern principles of early, differential diagnosis, interpretation of the results of the examination from the standpoint of evidence-based medicine, treatment and prevention of surgical diseases using surgical methods; to teach to comply with the requirements of medical ethics and deontology when conducting expert, preventive and therapeutic and diagnostic measures.

4. The professional standard on the basis of which the educational program was developed:

- Order of the Minister of Health of the Republic of Kazakhstan dated 07/04/2022 No. KR DSM-63 "On the approval of state mandatory standards for the levels of education in the field of healthcare";
- The Professional standard "General Surgery" (Order of the Minister of Health of the Republic of Kazakhstan dated January 25, 2024 No. 46 "On approval of professional standards in the field of healthcare".
- On amendments and additions to the Order of the Minister of Health of the Republic of Kazakhstan "On Approval of the list of medical specialties of residency programs" dated May 25, 2021 No. KR DSM - 43 and "On Approval of standard training programs in medical and pharmaceutical specialties" dated January 9, 2023 No. 4. (Order of the Minister of Health of the Republic of Kazakhstan dated 10 November 2023, No. 164).

5. Area of professional activity: development of the educational program 7R01136-General surgery includes the provision of surgical care to the population at the prehospital and hospital levels.

6. Objects of professional activity: Medical organizations providing inpatient and outpatient care, healthcare systems of the Republic of Kazakhstan

General information

№	Characteristics of EP	Data
1	Registration number	7R09100125
2	Code and classification of the field of education	7R01 Health (medicine)
3	Code and classification of areas of study	7R011 Health care
4	Group of educational programs	R036 General surgery
5	Code and name of the educational program	7R01136 General surgery
6	OP type	Updated EP
7	ISCED level	7
8	NQF level	7
9	ORC level	7
10	Distinctive features of the EP	compiled according to the professional standard
	Partner HEI (JEP)	No
	Partner HEI (Double degreeEP)	No
11	List of competencies	CC1. Patient supervision: is able to formulate a clinical diagnosis, prescribe a treatment plan and evaluate its effectiveness based on evidence-based practice at all levels of medical care. CC 2. Communication and collaboration: He is able to effectively interact with the patient, his environment, and healthcare professionals in order to achieve the best results for the patient. CC 3. Safety and quality: He is able to assess risks and use the most effective methods to ensure a high level of safety and quality of medical care. CC 4. Public health: He is able to act within the legal and organizational framework of the healthcare system of the Republic of Kazakhstan in his specialty, provide basic assistance in emergency situations, and work as part of interprofessional teams to implement national health promotion policies. CC 5. Researches: He is able to formulate adequate research questions, critically evaluate professional literature, effectively use international databases in his daily activities, and participate in the work of a research team. CC 6. Training and development: He is able to study independently and train other members of a professional team, actively participate in discussions, conferences and other forms of continuous professional development.
12	Learning Outcomes	LO1. He is able to act within the legal and organizational framework of the healthcare system of the Republic of

		Kazakhstan in his specialty, provide basic surgical care in emergency situations, provide primary and secondary prevention of surgical diseases in patients, and work as part of interprofessional teams to implement national health promotion policies. LO2. able to effectively interact with the patient, their environment, and healthcare professionals in order to achieve the best results for the patient LO3. able to assess risks and use the most effective methods to ensure a high level of safety and quality of medical care. LO4. able to train independently and train other members of a professional team, actively participate in discussions, conferences, and other forms of continuous professional development. LO5. He is able to formulate adequate research questions, critically evaluate professional literature, effectively use international databases in his daily activities, participate in the work of the research team, participate in the management of medical documentation, medical and statistical information using artificial intelligence. LO6. Formulate a clinical diagnosis, prescribe a treatment plan, and evaluate its effectiveness based on evidence-based practice in highly specialized surgical care.
13	Form of study	full-time
14	Language of instruction	Kazakh and Russian
15	Volume of credits	210
16	Period of training	3 year
17	Awarded qualification	Doctor-surgeon
18	Availability of an application to the license for the direction of personnel training	KZ36LAA00011387
19	Availability of EP accreditation	Yes
	Name of the accreditation body	NM «Independent Accreditation and Rating Agency»
	Validity of accreditation	№ AB 3985 Residency 10.06.2022 -09.06.2027
19	Information about disciplines	Application 1.2

Application 1.1

Matrix of correlation of educational program results with competencies to be formed

	LO1	LO2	LO3	LO4	LO5	LO6
CC1	+		+		+	
CC2		+		+		+
CC3	+		+	+		
CC4	+	+	+	+		
CC5		+			+	+
CC6			+	+		+

Application 1.2

Competency/Learning Outcomes Achievability Matrix

№	Name of the discipline	Brief description of the discipline	Cycle (PD)	Component (MC)	Number of credits	Formed learning outcomes (codes)
CYCLE OF PROFILING DISCIPLINES						
Mandatory component						
1	Elective surgery	Formation of knowledge, skills in clinics and surgical diseases of the esophagus, stomach, intestine and rectum, hepatobyllic zone, mediastinum and diaphragm, parasitic diseases, blood and endocrine system, abdominal hernia, metabolic syndrome and obesity. Surgical treatment with application of scientific research and knowledge of evidence-based medicine in practical practices and research. Prevention of work.	PD	MC	58	LO2 LO4 LO6
2	Emergency surgery	Formation of knowledge, skills and mastery of practical skills in modern highly specialized methods of diagnosis and treatment of emergency surgical diseases and injuries. Emergency surgical care with the application of scientific research and knowledge of evidence-based medicine in medical practices and research.	PD	MC	60	LO1 LO2 LO6
3	Purulent surgery	Formation of knowledge, skills in the diagnosis of purulent-inflammatory diseases of the skin and	PD	MC	32	LO2 LO4 LO6

		soft tissues, purulent-septic signs of surgical disease of internal organs, clinical-laboratory and instrumental diagnostics, skills in differential diagnosis, diagnosis, prescription of surgical treatment using scientific research and knowledge of evidence-based medicine in practical practices and research.				
4	Surgery in the clinic	Develops knowledge, skills and practical skills for independent diagnostic, therapeutic and preventive measures in outpatient surgery. Clinical oral injections. Surgical care with the application of scientific research and knowledge of evidence-based medicine in practical practices and research.	PD	MC	16	LO2 LO3
5	Thoracic surgery	Deepening theoretical knowledge on modern high-tech methods of diagnostics and surgical interventions for surgical diseases and injuries of the chest organs. Mastering the practical skills necessary for the development of new operations by residents, able to successfully independently solve problems in professional activities, to be well oriented in an effort to deepen knowledge of related disciplines.	PD	MC	8	LO2 LO4 LO6
6	Children's surgery	As development progresses, the resident will gradually determine the definition, etiology, pathogenesis, clinic of	PD	MC	8	LO2 LO4 LO6

		surgical disease in children, examination, diagnosis, determination of conservative treatment, based on the obtained basic knowledge. Surgical treatment using scientific research and knowledge of evidence-based medicine. Able to independently and successfully solve professional problems and master the professional sphere, possessing developing thinking.				
7	Gastroenterology with endoscopy	Develops knowledge and skills in modern highly specialized endoscopic methods for diagnosing pathology of the esophagus, stomach, small and large intestine, biliary tract, bleeding from the digestive tract, foreign bodies of the digestive system. Endoscopic equipment and instruments. Prescriptions and contraindications for the use of minimally invasive technologies in emergency and elective surgery. Scientific research and knowledge of evidence-based medicine. Robotic artificial intelligence systems for minimally invasive examinations of internal organs. The use of digital tools in healthcare; work in a research team; in the management of medical documentation and medical statistical information.	PD	MC	5	LO3 LO5
8	Traumatology	Formation of knowledge and skills on general issues of organizing	PD	MC	5	LO2 LO4 LO6



		traumatological and orthopedic care in the Republic of Kazakhstan, etiology, pathogenesis, clinical symptoms, knowledge of the main traumatological diseases, their prevention, treatment for fractures of tubular bones and spine. Emergency care for traumatological and orthopedic diseases. Treatment from the standpoint of evidence-based medicine.				
9	Urology	Semiotics of urological diseases. Endoscopic methods of examination and treatment. Nephrolithiasis. Acute and chronic diseases of the prostate gland, appendages of the testicle. Emergency urology. Acute and chronic renal failure. Hydrocele, spermatocele. Varicocele. Neoplasms of the genitourinary system. Parasitic diseases of the genitourinary organs. Infertility, impotence.	PD	MC	5	LO2 LO4 LO6
10	Anesthesiology and resuscitation	Formation of residents' knowledge of anesthesiology and resuscitation in surgery. Rules for conducting infusion and transfusion therapy during anesthesia. The ability to control breathing and blood circulation, diagnose various complications during anesthesia and surgery, diagnose circulatory arrest, perform resuscitation (CPR),	PD	MC	3	LO1 LO3



		diagnose brain death. Emergency surgical care using evidence-based medicine.				
	Total				200	
	The cycle of profile disciplines Optional component					
1	Endovideolaparoscopic interventions in abdominal surgery	Formation of knowledge on endovideolaparoscopic interventions in abdominal surgery. Principles of work with endosurgical equipment. Modern highly specialized laparoscopic surgery: peptic ulcer of the stomach and duodenum, hepatobiliary zone, diseases of the spleen. Laparoscopic appendectomy, removal of Meckel's diverticulum, laparoscopic resection of the small intestine. Laparoscopic hernioplasty. Scientific research and knowledge of evidence- based medicine. The use of digital tools in healthcare. Management of medical documentation and medical statistical information. Integration of various patient data sources, including electronic medical records, laboratory results, medical images, and historical artificial intelligence surgical results.	PD	OC	2	LO3 LO5
2	Interventional radiology in surgery	Formation of knowledge on interventional radiology in surgery. X-ray endovascular interventions, main types. Scientific research and knowledge of evidence-based medicine in medical practices and	PD	OC		LO3 LO5



		research.			2	
	Actual problems of surgical endocrinology	Innovative methods of diagnosis and differential diagnosis and treatment of: type 1 and type 2 diabetes mellitus, complications of diabetes mellitus, diabetic foot syndrome, endocrine tumors of the pancreas, diseases of the parathyroid gland, obesity, metabolic syndrome, thyroid diseases, adrenal diseases.	PD	OC		LO2 LO6
3	Actual problems of coloproctology	Formation of knowledge on modern highly specialized methods of diagnosis, differential diagnosis and treatment in the field of coloproctology. Clinical protocols of the Republic of Kazakhstan. Scientific research and knowledge of evidence-based medicine in medical practices and research.	PD	OC		LO2 LO6
	Actual problems of oncology and radiation therapy	Innovative high-tech diagnostic methods in oncology. Modern radiation, chemotherapeutic and surgical methods for the treatment of tumors: head and neck, organs of the chest and abdominal cavities, genitourinary system, musculoskeletal system, hematopoietic system, skin. Clinical protocols of the Republic of Kazakhstan. Scientific research and knowledge of evidence-based medicine.	PD	OC	4	LO3 LO5
	Total				8	
	Final examination				2	
	Total				210	

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Professional standard: "General Surgery"

Profession card "7.2 General Surgeon"	Mandatory labor functions:	1. Outpatient admission of patients with a diagnosed surgical pathology and registered with a surgeon at a dispensary 2. Hospitalization of a patient with a surgical pathology in the appropriate department of a medical organization 3. Conducting medical examinations in relation to patients with surgical diseases. 4. Organization, implementation and control of the effectiveness of measures aimed at the prevention of surgical diseases. 5. Participation in the management of medical documentation, medical and statistical information
	Additional labor functions:	1. Continuous professional development
Labor function 1: Outpatient admission of patients with diagnosed surgical pathology and registered with a surgeon	Skill 1: Outpatient examination of patients with surgical pathology.	Skills: 1. The skills of conducting an initial examination of a patient with suspected surgical pathology. 2. Skills in the reasoned appointment of diagnostic tests to a patient with suspected surgical pathology. 3. The ability to correctly interpret the results of diagnostic studies of the patient in case of suspected surgical pathology. 4. Skills of correct formulation of the diagnosis according to ICD-10 in the detection of surgical pathology. 5. Skills in assessing the level of functional insufficiency of an organ or system when a pathological process is detected in them
		Knowledge: 1. Knowledge of the sequence and scope of collecting information about the patient. 2. Knowledge of normal, topographic and pathological anatomy, normal and pathological physiology, biochemistry. 3. Knowledge of the structure and functions of organs and systems, assessment methods, and clinical significance. 4. Knowledge of the patient's examination methods



	Skill 2: Diagnosis, treatment and prevention of diseases in patients with surgical pathology at the outpatient level.	Skills: 1. Timely identify complications in surgical practice. 2. Skills in prescribing outpatient treatment to a patient with surgical pathology. 3. Skills of medical examination of patients with surgical pathology. 4. To determine the indications for hospitalization of a patient with surgical pathology. 5. Timely inform stakeholders about cases of detection of severe, diagnostically unclear patients, rare pathological conditions. 6. Promptly identify and provide information to the relevant specialist or to the authorized body in the field of healthcare about the identified infectious diseases (emergency notification, late hospitalization). Knowledge: 1. Knowledge of the main clinical symptoms and syndromes in surgery. 2. Knowledge of etiology, pathogenesis, classification, clinical manifestations, diagnosis and principles of treatment. 3. Knowledge of clinical protocols for the diagnosis and treatment of pregnant women. 4. Knowledge of the portal of the Bureau of hospitalization. 5. Knowledge of the patient registry. 6. Knowledge of clinical manifestations of infectious diseases, nosocomial infection.
Labor function 2: Hospitalization of a patient with a surgical pathology in the appropriate department of a medical organization	Skill 1: Determination of indications for planned hospitalization of patients with surgical pathology	Skills: 1. Skills in carrying out routine hospitalization of a patient in a day hospital. 2. Skills in carrying out planned hospitalization of a patient in a 24-hour hospital. Knowledge: 1. Knowledge of the rules of working with the Portal of the Bureau of hospitalization. 2. Knowledge of the indications for the planned hospitalization of a patient in a day hospital.
	Skill 2: Implementation of dynamic monitoring of patients with surgical diseases.	Skills: 1. To conduct dynamic monitoring of patients with surgical diseases. 2. To monitor the treatment of patients with surgical diseases. 3. To ensure the continuity of supervision between the inpatient and outpatient stages of medical care. Knowledge: 1. Principles of dynamic patient monitoring of patients with surgical diseases, including those who have undergone surgical interventions. 2. Terms of monitoring and criteria of treatment effectiveness.

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	Skill 3: Planning and monitoring the effectiveness of medical rehabilitation of patients with surgical diseases.	Skills: 1. To determine the medical indications for the medical rehabilitation of patients with surgical diseases. 2. Determine medical indications for referring patients with surgical diseases to specialist doctors for prescribing and conducting medical rehabilitation measures. 3. Develop an action plan for the rehabilitation of patients with surgical diseases. 4. Develop individual rehabilitation and habilitation programs for people with disabilities. 5. To monitor the effectiveness of medical rehabilitation. Knowledge: 1. Fundamentals and methods of medical rehabilitation of patients with surgical diseases. 2. Medical indications and medical contraindications for the medical rehabilitation of patients with surgical diseases.
	Skill 4: Provision of emergency medical care to patients with surgical diseases.	Skills: 1. To recognize conditions that pose a threat to life, including clinical death (arrest of vital functions of the human body (blood circulation and/or respiration), requiring emergency medical care. 2. Assess the cause and severity of patients' condition and take necessary measures to bring patients out of this condition. 3. Perform cardiopulmonary resuscitation measures. 4. Provide emergency medical care in conditions that pose a threat to life, including clinical death (stopping vital functions of the human body (blood circulation and/or respiration). 5. Use medicines and medical devices when providing emergency medical care. 6. To evaluate the effectiveness and safety of the use of medicines and medical devices in the provision of emergency medical care. 7. Identify critical conditions in surgical diseases in non-medical settings Knowledge: 1. Clinical signs of sudden cessation of blood circulation and (or) respiration. 2. Cardiopulmonary resuscitation. 3. Methods for detecting critical conditions in patients outside the medical organization. 4. Methods of intensive care and resuscitation for surgical diseases in conditions outside the medical organization.

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Labor function 3: Conducting medical examinations in relation to patients with surgical diseases.	Skill 1: Disability examination	Skills: 1. Formulate medical conclusions based on the results of the medical examination. 2. Identify signs of temporary disability and signs of persistent dysfunction of the human body caused by surgical diseases and the need for care when issuing sick leave for sick family members. 3. Refer patients with surgical diseases for medical and social examination. 4. Prepare the necessary medical documentation for patients with surgical diseases to undergo a medical and social examination. 5. Issue a disability certificate for patients with surgical diseases.
		Knowledge: 1. Order of the Minister of Health of the Republic of Kazakhstan dated November 18, 2020 No. KR DSM-198/2020 "On approval of the rules for conducting an examination of temporary disability, as well as issuing a sheet or certificate of temporary disability" (registered with the Ministry of Justice of the Republic of Kazakhstan on November 20, 2020 No. 21660). 2. Registration of medical documentation for the implementation of medicalsocial expertise. 3. Medical indications for referral of patients with persistent impairment of body functions caused by poisoning and its consequences for medical and social examination.
Labor function 4: Organization, implementation and control of the effectiveness of measures aimed at the prevention of surgical diseases.	Skill 1: Organizing, conducting and monitoring the effectiveness of measures aimed at preventing surgical diseases.	Skills: 1. To participate in the organization and conduct of events aimed at the prevention and early diagnosis of surgical diseases, injuries of the chest and abdominal cavity, the prevention of disability and mortality from them. 2. To develop and implement measures for sanitary and hygienic education of the population aimed at the formation of a healthy lifestyle and the prevention of surgical diseases. 3. Possess the skills of organizing and operating a "school" for patients with surgical diseases (school of health).
		Knowledge: 1. Principles of prevention of surgical diseases. 2. Forms and methods of sanitary and educational work on the formation of a healthy lifestyle.

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Labor function 5: Participation in the management of medical documentation, medical and statistical information	Skill 1: Maintaining medical records, analyzing medical and statistical information, in accordance with the requirements of regulatory legal acts in the field of surgery.	Skills: 1. Plan your work and compile a report analyzing your own performance indicators. 2. Maintain medical records, including in electronic form, and monitor the quality of its management. 3. To analyze the medical and statistical indicators of the work of the specialized medical department. 4. Use patients' personal data and information in accordance with the law. 5. Use information systems in accordance with the established procedure.
		Knowledge: 1. Order of the Acting Minister of Health of the Republic of Kazakhstan dated October 30, 2020 No. KR DSM-175/2020 "On approval of Accounting Documentation forms in the field of healthcare, as well as instructions for completing them (registered with the Ministry of Justice of the Republic of Kazakhstan on November 4, 2020 No. 21579). 2. Order of the Minister of Health of the Republic of Kazakhstan dated December 22 2020 No. KR DSM-313/2020 "On approval of reporting forms in the field of healthcare" (registered with the Ministry of Justice of the Republic of Kazakhstan on December 23, 2020 No. 21879). 3. Order of the Minister of Health of the Republic of Kazakhstan dated December 10, 2020 No. KR DSM-244/2020 "On approval of the Rules for maintaining primary medical records and submitting reports" (registered with the Ministry of Justice of the Republic of Kazakhstan on December 11, 2020, No. 21761). 4. Electronic accounting and documentation systems. 5. Confidentiality of patients' medical information. 6. Fundamentals of medical statistics.
Additional labor function 1: Continuous professional development	Skill 1: Striving for professional improvement	Skills: 1. Participate in professional training events: conferences, seminars, webinars, advanced training courses. 2. Participate in academic and scientific activities. 3. Participate in the work of professional associations, committees, and working groups to discuss health issues and share experiences with colleagues.
		Knowledge: 1. Order of the Minister of Health of the Republic of Kazakhstan dated December 21, 2020 No. KR DSM-303/2020 "On Approval of the Rules for additional and non-formal education of healthcare Professionals,



		qualification requirements for organizations implementing educational programs for additional and non-formal education in the field of healthcare, as well as the rules for recognizing the learning outcomes obtained by healthcare professionals through additional and non-formal education (registered with the Ministry of Justice of the Republic of Kazakhstan on December 22, 2020 No. 21847). 2. Order of the Minister of Health of the Republic of Kazakhstan dated December 20, 2020 No. KR DSM-283/2020 "On approval of the rules for confirming the results of continuous professional development of healthcare workers" (registered with the Ministry of Justice of the Republic of Kazakhstan on December 22, 2020 No. 218433). Opportunities for networking and communication with colleagues from their professional environment
Personal competence requirements:	Empathy Communication skills Tolerance and respect Collaboration and teamwork Stress resistance Reflection and introspection Compliance with professional ethics Openness and willingness to learn Activity and initiative Striving for professional development	

Head of the educational and methodological center



B.Z.Doltayeva