



SOUTH KAZAKHSTAN
**MEDICAL
ACADEMY**

EDUCATIONAL PROGRAM OF RESIDENCY

7R01126

UROLOGY AND ANDROLOGY (ADULTS, CHILDREN)"

Shymkent, 2025

ОҢТҮСТІК-ҚАЗАҚСТАН MEDISINA АКАДЕМИЯСЫ «Оңтүстік Қазақстан медицина академиясы» АҚ	 SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Caphedra surgery, otorhinolaryngology and urology Educational program «7R01126 Urology and andrology (adults, children)»	66-11 2p. of 17

The educational program of residency 7R01126 Urology and andrology (adults, children) was developed by the Department of Surgery, Otolaryngology and Urology Head of the Department, Acting Associate Professor _____ Kaldygozova G.E.

Protocol No. 8 from "28" 03 2025.

Agreed with the employer:

Chief physician of the clinic "Ai-Nur" Shymkent c. _____ Saulenbaeva E.U.



Discussed at the meeting of the Academic Communittee

Surgical profile

Chairman of the AC,

Acting Associate Professor _____ Kaldygozova G.E.

Protocol No. 4 from "21" 04 2025.

Approved by the Clinical Council

Chairman, Professor _____ Nurmashev B.K.

Protocol No. 8 from "25" 05 2025.

Approved by the Academic Council

Protocol No. 13 from "02" 05 2025.

ОНТҮСТІК-ҚАЗАҚСТАН MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Caphedra surgery, otorhinolaryngology and urology		
Educational program «7R01126 Urology and andrology (adults, children)»		66-11 3p. of 17

Educational program passport

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

Duration of study: 3 years

Qualification awarded upon completion of study – doctor-urologist and andrologists adults, children.

2. The purpose of the educational program: Training of a qualified urologist-andrologist with a system of universal, professional competencies, capable and ready for independent professional activity in the conditions of primary health care; specialized, including high-tech medical care.

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. Professional standard on which the educational program is based:

- Order of the Minister of Health of the Republic of Kazakhstan dated July 4, 2022 No. KP DSM-63 "On the approval of state compulsory standards by levels of education in the field of healthcare";
- On amendments and additions to the Order of the Minister of Health of the Republic of Kazakhstan "On the approval of the list of medical specialties of residency programs" dated May 25, 2021 No. KP DSM-43 and "On the approval of model curricula for medical and pharmaceutical specialties" dated January 9, 2023 No. 4 (Order of the Minister of Health of the Republic of Kazakhstan dated November 10, 2023 No. 164);
- Professional standard "Urology and andrology (adults, children)". Standard for the organization of urology and andrological care in the Republic of Kazakhstan — Order of the Minister of Health of the Republic of Kazakhstan No. KP DSM-92 dated August 26, 2021.

5. Field of professional activity: Healthcare

6. Objects of professional activity:

Medical organizations providing inpatient and outpatient care, healthcare system of the Republic of Kazakhstan

ОҢТҮСТІК-ҚАЗАҚСТАН MEDISINA АКАДЕМИЯСЫ «Оңтүстік Қазақстан медицина академиясы» АҚ		 SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Caphedra surgery, otorhinolaryngology and urology		66-11
Educational program «7R01126 Urology and andrology (adults, children)»		4p. of 17

General information

№	Characteristics of EP	Data
1	Registration number	7R01100275
2	Code and classification of the field of education	7R01 Healthcare (Medicine)
3	Code and classification of training areas	7R011 Healthcare
4	Group of educational programs	R026 Urology and andrology (adults, children)"
5	Name of the educational program	7R01126 Urology and andrology (adults, children)
6	Type EP	Updated EP
7	The purpose of the EP	Training of a qualified urologist-andrologist with a system of universal, professional competencies, capable and ready for independent professional activity in the conditions of primary health care; specialized, including high-tech medical care.
8	Level on ISCE	7
9	Level on SWC	7
10	Level on EBC	7
11	Distinctive features PE	According to professional standard
12	List of competencies	C1 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 C2 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. C3 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. C4 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. C5 Research: 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. C6 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.
13	Learning outcomes	LO1. Able to formulate a clinical diagnosis, prescribe a treatment plan, and evaluate its effectiveness based on evidence-based practice at all levels of urological and andrological care for adults and children. LO2 Able to effectively interact with the patient, his environment, health 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 urological and andrological care, conduct and monitor medical examinations,

ОНТҮСТІК-ҚАЗАҚСТАН MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ		 SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Caphedra surgery, otorhinolaryngology and urology		66-11
Educational program «7R01126 Urology and andrology (adults, children)»		5p. of 17

		medical rehabilitation, and the implementation of individual rehabilitation or habilitation programs for people with disabilities due to kidney, urinary tract, and male genital diseases. LO4. Able to act within the legal and organizational framework of the health system of the Republic of Kazakhstan in the provision of urological and andrological care, to carry out effective measures for the prevention and formation of a healthy lifestyle, as well as sanitary and hygienic education, and patient education, to provide basic assistance in emergency situations, to work as part of interprofessional teams to implement the policy of strengthening the health of the nation. LO5. He is able to formulate adequate research questions, critically evaluate professional literature, effectively use international databases in the activities of a urologist-andrologist, and participate in the work of a research team. LO6. Able to train independently and train other members of a professional team, actively participate in discussions, conferences, and other forms of continuous professional development.
14	Form of study	Full – time
15	Language of instruction	Kazakh and Russian
16	Volume of credits	210
17	Awarded qualification	Urologist and andrologist for adults and children
18	Availability of an application to the license for the direction of training	KZ36LAA00011387
19	Availability of EP accreditation	Yes
	Name of the accreditation body	NM «Independent Accreditation and Rating Agency»
	Validity period of accreditation	10.06.2022 -09.06.2027
20	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			+	+		+

ОҢТҮСТІК-ҚАЗАҚСТАН MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ		SKMA 1979	SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Caphedra surgery, otorhinolaryngology and urology			66-11
Educational program «7R01126 Urology and andrology (adults, children)»			6p. of 17

Application 1.2

* Competency/Learning Outcomes Achievability Matrix

№	Name of the discipline	Brief description of the discipline	Cycle (PD)	Component (UC)	Number of credits.	Generated learning outcomes (codes)
1	Urology	Studies general issues of the organization of urological care. In the learning process, using neural networks, he interprets the results of X-ray images of urological patients, performs differential diagnostics, and prescribes the necessary instrumental and laboratory examination methods. To ensure a high level of quality of medical care, the resident, assessing the risks, draws up a treatment plan and masters effective urological surgical interventions for pathologies of the genitourinary system.	PD	UC	55	LO1 LO2 LO4
2	Andrology	Applies communication skills when working with patients, uses modern informative diagnostic methods in andrology, and masters the skills of formulating a clinical diagnosis. According to clinical protocols, the resident independently draws up a treatment plan and evaluates its safety and effectiveness based on evidence-based practice, at all levels of medical care, adjusts treatment depending on the patient's response and masters effective surgical interventions in andrology.	PD	UC	20	LO1 LO3
3	Oncourology	Predisposition in oncology. Genetic research in the early diagnosis and prevention of cancer. Methods of diagnostics of oncourological diseases, including high-tech ones. Principles of treatment of patients with neoplasms of the genitourinary system in accordance with current clinical recommendations (treatment protocols). Communication with a patient with neoplasms and his environment, medical secrecy and the doctor's oath.	PD	UC	18	LO1 LO2
4	Pediatric urology	Assessment of the anatomical and functional state of the kidneys, urinary tract and male genitalia in normal and in diseases in children. Formulation of the diagnosis, justification of the scope of examination and treatment tactics in children. Differential diagnosis of acute surgical and urological diseases. Provision of emergency medical care. Principles of medical ethics and deontology in working with children, their legal representatives and colleagues. Assessment of the safety and quality of the assistance provided.	PD	UC	35	LO1 LO2 LO3
5	Phthisiourology	Etiology, pathogenesis, clinical picture, methods of diagnosis, conservative and surgical treatment of patients with tuberculosis of the genitourinary system based on evidence-based medicine. Specific chemotherapy for phthiological urological patients. Principles and methods of pathogenetic therapy. Literary review of clinical trials in phthisiourology. Rules for conducting clinical trials. Joint activity of phthisiatrics and urologists. Conducting clinical examination of patients with tuberculosis of the genitourinary system, analysis of its effectiveness. Rehabilitation of patients with phthisiourological profile, its principles.	PD	UC	5	LO3 LO5
6	Endourology	Principles of work organization in the laparoscopic operating room. Preparation of the sick. Technical features of diagnostic laparoscopic examinations. Technical features of operative laparoscopy. Risk assessment of laparoscopic surgery and	PD	UC	32	LO3 LO6

		patient safety. Basic principles and types of endoscopic treatment of urological patients. Retrograde intrarenal surgery. Treatment of narrowing of the urethra. Formulation of conclusions on case management and their rationale during discussions with colleagues and students.				
7	Radiation, ultrasound diagnostics in urology	Organization of ultrasound service and directive documents: orders, instructions, regulations, reporting of ultrasound departments. Ultrasound techniques - one-dimensional echography, dopplerography, duplex sonography. Systemic ultrasound diagnostics of diseases in adults and children. Ultrasound of the genitourinary system. Features of ultrasound in children. Indications and contraindications for the use of ultrasound diagnostics in urology. Ethical aspects of the survey. Patient preparation. Interpretation of the obtained data and clinical diagnosis. Training and self-study in a professional team.	PD	UC	15	LO1 LO2 LO4
8	Outpatient-polyclinic urology	The principles of organizing outpatient urological care. Indications and contraindications for conservative treatment of urological diseases. Primary specialized health care standards, including standards for specialized high-tech medical care. Modern principles of diagnosis and treatment of urological patients based on the principles of evidence-based medicine. Quality assurance at the stage of providing outpatient care. Features of conducting research at the level of outpatient care.	PD	UC	20	LO3 LO5
	Total				200	
1	Anesthesiology and intensive care	Diseases and (or) conditions of the kidneys, urinary tract and male genital organs, requiring emergency care. Intensive therapy for life-threatening syndromes: acute respiratory failure, acute cardiovascular failure, convulsive and hyperthermic syndromes, shocks. Features of the conversation with the patient's relatives in case of an unfavorable outcome. Preoperative stage and preparation of the patient for anesthesia. Risk-based local anesthesia techniques.	PD	EC	4	LO2 LO3 LO6
2	Rehabilitation in urology	Indications and contraindications for the rehabilitation of patients with diseases of the genitourinary system. Development of a plan of measures for rehabilitation. Collaboration with rehabilitation therapists. Referral of urological patients to specialist doctors for the implementation of measures for rehabilitation, spa treatment, including the implementation of an individual rehabilitation or habilitation program for the disabled. Rehabilitation. Communication with patients. Assessment of the effectiveness and safety of rehabilitation. Training in rehabilitation skills and transfer of experience to medical interns.	PD	EC		LO2 LO3 LO6
3	Examination of temporary disability	Examination of temporary disability. Review of professional literature and legal acts. Preparation of the necessary medical documentation. Conducting medical examinations, including periodic and preliminary. Features of interaction with a patient with persistent disability. Indications for referring patients to undergo a medical and social examination. Diagnostics of temporary disability and persistent decline in working capacity. The procedure for issuing certificates of incapacity for work.	PD	EC		LO1 LO2 LO5
4	Organization of work in the Department of Urology	Rules for the preparation of medical documentation for the "urology" profile. Organization of labor protection, the basics of personal safety and conflict management. Rules of work in medical information systems. Responsibilities of medical	PD	EC	4	LO4 LO5

ОҢТҮСТІК-ҚАЗАҚСТАН MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ		 SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Caphedra surgery, otorhinolaryngology and urology		66-11
Educational program «7R01126 Urology and andrology (adults, children)»		8p. of 17

		workers of urological profile, taking into account the legal framework. Control over the fulfillment of official duties of the medical personnel at the disposal. Research and analysis of medical and statistical indicators of morbidity, disability to assess the health of the attached population.				
5	Neurosurology and urodynamics	The discipline studies functional urinary disorders in various neurological conditions and forms an active urological operational tactic for the management of patients with spinal cord injuries.	PD	EC		LO2 LO3 LO5
		Total:			8	
		Final certification				
		Total:				

Professional standard : Urology and andrology (adults, children)"

Profession card "7.2 Urologist and andrologist":	Mandatory labor functions :	1. Conducting examination of patients to identify diseases and (or) conditions of the kidneys, urinary tract and male genital organs, establishing a diagnosis 2. Prescribing treatment to patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs, monitoring its effectiveness and safety 3. Conducting medical examinations of patients with persistent impairment of body functions caused by diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 4. Conducting and monitoring the effectiveness of medical rehabilitation of patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs, including the implementation of individual rehabilitation or habilitation programs for persons with disabilities 5. Conducting and monitoring the effectiveness of measures to prevent and promote a healthy lifestyle and sanitary and hygienic education, and patient training 6. Participation in the management of medical documentation, medical and statistical information
	Additional labor functions :	1. Continuous professional development
Job Function 1: Conducting examination of patients to identify diseases and (or) conditions of the kidneys, urinary tract and male genital organs, establishing a diagnosis	Skill 1: Collection of complaints, anamnesis of life, questionnaires of patients (adults, children) (their legal representatives) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs	Skills: 1. Collect complaints, anamnesis of life from patients (their legal representatives) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 2. Interpret and analyze information received from patients (their legal representatives) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. Knowledge: 1. Knowledge of the methodology for collecting anamnesis of life and complaints from patients (their legal representatives) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs.
	Skill 2: Examination of patients (adults, children) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs, interpretation	Skills: 1. Use methods of examination of adults and children with diseases and (or) conditions of the kidneys, urinary tract and male genital organs, such as: examination and percussion, palpation of the kidneys. examination and percussion, palpation of the bladder. examination and palpation of the male genital organs. transrectal digital examination. bimanual vaginal examination. 2. Assess the anatomical and functional state of the kidneys, urinary tract and male genital organs in norm, in diseases and (or) conditions in patients.

	and analysis of the information obtained	Knowledge: 1. Knowledge of the method of examination of patients (adults, children) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 2. Knowledge of the anatomical, functional and age-related characteristics of diseases and (or) conditions of the kidneys, urinary tract and male genital organs in children and adults in normal and pathological conditions.
	Skill 3: Formulating a preliminary diagnosis and justifying the scope of laboratory and instrumental examinations of patients (adults, children) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs in accordance with the current procedure for the provision of medical care, clinical recommendations (treatment protocols) on issues of providing medical care, taking into account the standard	Skills: 1. Interpret and analyze the results of laboratory examination of patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 2. Use methods of examination of patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs, such as: diaphanoscopy of the scrotum. functional tests for the urinary and genital organs, including a cough test for urinary incontinence in women, the Valsalva maneuver. viewing urethrocystoscopy with a rigid and flexible fibrocystoscope. catheterization of the bladder in men and women. performing tests with drugs. methods of biopsy of the prostate gland, kidneys with an automatic device for biopsy under ultrasound control. massage of the prostate gland (therapeutic and diagnostic), testicular biopsy. introduction of a contrast agent in X-ray examinations of the genitourinary system. ultrasound examination of the genitourinary system in men and women. 3. Collect a complete medical history from patients with genitourinary pathology. 4. Examine adults and children to identify pathology of the genitourinary system using basic and additional research methods. 5. Identify developmental anomalies and pathology of the genitourinary system in patients. 6. Interpret and analyze the results of instrumental examination of patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs (ultrasound examination of the kidneys, bladder, urethra and male genital organs. overview and excretory urography, descending cystography, retrograde urethrocystography, cystography in direct and lateral projections. voiding cystourethrography. antegrade pyeloureterography, retrograde ureteropyelography. fistulography. magnetic resonance imaging with contrast. native computed tomography, computed tomography with bolus contrast. radiocontrast vascular methods for examining the genitourinary organs. radioisotope studies of the kidneys, uroflowmetry). Knowledge: 1. Knowledge of the results of laboratory examination of patients (adults, children) in norm and with diseases of the kidneys, urinary tract and male genital organs. 2. Knowledge of the algorithm and methods of examination of the genitourinary organs to identify pathological conditions in adults and children. 3. Knowledge of the topographic anatomy of the genitourinary system, features of blood supply, innervation and lymphatic system in adults and children. 4. Knowledge of the embryology of the genitourinary system, the main disorders of embryogenesis. 5. Knowledge of the clinical picture of developmental anomalies of the genitourinary system in adults and children.
	Skill 4: Ensuring the safety of diagnostic manipulations	Skills: 1. Identify symptoms and syndromes of complications, side effects, adverse reactions, including serious and unexpected ones, that have arisen as a result of diagnostic measures in patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs that require emergency specialized medical care, including outside a medical organization. Knowledge:

		1. Knowledge of medical indications and contraindications for the use of instrumental and laboratory diagnostic methods for diseases and (or) conditions of the kidneys, urinary tract and male genital organs.
	Skill 5: Establishing a diagnosis taking into account the current ICD 10 and health-related problems	Skills: 1. Establish a diagnosis taking into account ICD 10, apply methods of differential diagnosis of patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 2. Use modern classifications, symptoms and syndromes of diseases and (or) conditions of the kidneys, urinary tract and male genital organs to establish a clinical diagnosis. 3. Conduct differential diagnosis using knowledge of the etiology, pathogenesis and clinical data for diseases of the kidneys, urinary tract and male genital organs in patients. 4. Conduct differential diagnosis of acute surgical, urological diseases, as well as other systems requiring emergency care. 5. Conduct diagnosis and differential diagnosis of neoplasms of the kidneys, urinary tract and male genital organs. 6. Conduct diagnostics and differential diagnostics for conditions accompanied by changes in the kidneys, urinary tract and male genital organs and requiring referral of patients to the appropriate medical specialists. 7. Conduct diagnostics and differential diagnostics of occupational diseases of the kidneys and urinary tract in patients. 8. Interpret and analyze the results of laboratory and instrumental examination methods, examination by medical specialists of a patient with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. Knowledge: 1. Knowledge of the diagnostic algorithm taking into account ICD 10, apply methods of differential diagnostics of patients (adults, children) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 2. Knowledge of modern classifications, symptoms and syndromes of diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 3. Knowledge of the etiology, pathogenesis of diseases and (or) conditions of the kidneys, urinary tract and male genital organs in patients (adults, children). 4. Knowledge of diseases and (or) conditions of the kidneys, urinary tract and male genital organs that require emergency care. 5. Knowledge of the etiology, pathogenesis and diagnosis of neoplasms of the kidneys, urinary tract and male genital organs in patients (adults, children). 6. Knowledge of diseases and (or) conditions of other organs and systems accompanied by changes in the kidneys, urinary tract and male genital organs and requiring referral of patients to the appropriate medical specialists. 7. Knowledge of occupational diseases of the kidneys, urinary tract in patients.
	Skill 6: General issues of organizing and providing medical care to the population	Skills: 1. Carry out sanitary and anti-epidemic (preventive) measures in order to prevent the occurrence and spread of infectious diseases. 2. Organize the procedure for providing medical care to adults and children in the profile of "urology". 3. Determine medical indications for the provision of emergency, including emergency specialized, medical care to patients (adults, children) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. Knowledge: 1. Knowledge of the organization of sanitary and anti-epidemic (preventive) measures in order to prevent the occurrence and spread of infectious diseases. 2. Knowledge of the procedure for providing medical care to adults and children in the profile of "Urology and andrology (adult, pediatric)".

ОҢТҮСТІК-ҚАЗАҚСТАН MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Caphedra surgery, otorhinolaryngology and urology		
Educational program «7R01126 Urology and andrology (adults, children)»		66-11 11p. of 17

Job Function 2: Prescribing treatment to patients with diseases and/or conditions of the kidneys, urinary tract and male genital organs, monitoring its effectiveness and safety	Skill 1: Development of a treatment plan for patients (adults, children) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs, taking into account symptoms and syndromes in accordance with current clinical guidelines (treatment protocols) on issues of providing medical care, procedures for providing medical care, taking into account standards of medical care	3. Knowledge of the standards for the provision of primary specialized medical care, standards of specialized medical care to patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. Skills: 1. Provide primary specialized medical and sanitary care, including standards of specialized high-tech medical care for diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 2. Develop treatment tactics for patients with diseases (or) conditions of the kidneys, urinary tract and male genital organs. 3. Develop treatment tactics for patients with neoplasms of the kidneys, urinary tract and male genital organs that do not require combined and (or) combination treatment. 4. Justify the choice of drugs, medical devices, non-drug and (or) surgical treatment of patients (adults, children) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 5. Determine the optimal sequence of non-drug therapy and/or the use of drugs and/or surgical intervention in a patient with diseases and/or conditions of the kidneys, urinary tract and male genital organs. 6. Monitor the disease and/or condition of the kidneys, urinary tract and male genital organs, adjust the treatment plan depending on the characteristics of the course. Knowledge: 1. Knowledge of primary specialized health care standards, including standards of specialized high-tech medical care for diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 2. Knowledge of clinical guidelines (treatment protocols) on providing medical care to patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 3. Knowledge of clinical guidelines (treatment protocols) on providing medical care to patients with neoplasms of the kidneys, urinary tract and male genital organs. 4. Knowledge of the procedure for providing medical care to adults and children with diseases and (or) conditions of the kidneys, urinary tract and male genital organs.
	Skill 2: Performing manipulations and surgical interventions on patients (adults, children) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs in accordance with current clinical guidelines (treatment protocols) on issues of providing medical care, procedures for providing medical care, taking into account standards of medical care	Skills: 1. Determine medical indications and contraindications for surgical interventions and manipulations on the kidneys, urinary tract and male genital organs. 2. Develop a plan for preparing patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs for surgical interventions and manipulations. 3. Perform urological manipulations: installation of a urethral catheter in a man, a woman (including children) with various fixation methods. catheterization of the urinary bladder in a man with a metal catheter. urethrocystoscopy with a rigid and flexible urethrocystoscope. installation of a ureteral catheter/stent. removal of foreign bodies from the bladder, including a ureteral stent catheter. meatotomy. reduction of paraphimosis. urethral bougienage, removal of foreign bodies from the urethra. installation of trocar cystostomy. Installation of percutaneous nephrostomy under ultrasound (X-ray) control. Replacement of cystostomy, nephrostomy drainage. Puncture of a renal cyst and its aspiration under ultrasound control. Application of wound sutures, removal of sutures. Primary surgical treatment of the wound. Instillation of the bladder. Administration of local anesthesia. Performing a biopsy for neoplasms of the kidneys, bladder, prostate (transrectally or transperineally using TRUS), penis, testicle, urethra. 3. Perform surgical interventions for diseases of the kidneys, urinary tract and male genital organs (in case of purulent-inflammatory diseases, urolithiasis, developmental anomalies, in case of injuries, bleeding and others), including neoplasms, by

		open or laparoscopic access. Endoscopic operations, according to treatment protocols. 4. Develop a plan for postoperative care of patients (adults, children) with diseases (including neoplasms) and (or) conditions of the kidneys, urinary tract and male genital organs, carry out prevention or treatment of postoperative complications. Knowledge: 1. Knowledge of the principles and methods of surgical treatment and manipulations for patients (adults, children) with diseases and (or) conditions, as well as with neoplasms of the kidneys, urinary tract and male genital organs, including medical indications, medical contraindications, possible complications and side effects, adverse reactions, including serious and unexpected ones. 2. Knowledge of the principles of preoperative preparation and postoperative care of patients (adults, children) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 3. Knowledge of manipulations and methods of surgical treatment of diseases and (or) conditions, including neoplasms of the kidneys, urinary tract and male genital organs in accordance with current procedures for the provision of medical care and standards of medical care, clinical recommendations (treatment protocols) on issues of providing medical care. 4. Knowledge of the principles of postoperative management, prevention or treatment of postoperative complications.
	Skill 3: Prescribing drugs and medical devices to patients (adults, children) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs in accordance with current procedures for the provision of medical care, clinical recommendations (treatment protocols) on issues of providing medical care, assistance, taking into account the standards of medical care. assessment of their effectiveness and	Skills: 1. Prescribe medications to patients (adults, children) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs, analyze the effect of drugs and medical devices. 2. Monitor the effectiveness and safety of using drugs in patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. Knowledge: 1. Knowledge of methods of conservative treatment of diseases and (or) conditions of the kidneys, urinary tract and male genital organs in patients in accordance with current clinical guidelines (treatment protocols) on issues of providing medical care, procedures for providing medical care, taking into account the standards of medical care 2. Knowledge of the mechanisms of action of drugs used in urology, medical indications and contraindications, possible complications and side effects, adverse reactions, including serious and unexpected in patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs
	Skill 4: Prescribing non-drug therapy and medical devices to patients (adults, children) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs in accordance with current clinical guidelines, assessing their effectiveness and safety	Skills: 1. Prescribe non-drug therapy and medical devices to patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 2. Monitor the effectiveness and safety of non-drug therapy and medical devices in patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. Knowledge: 1. Knowledge of non-drug therapy methods for diseases and (or) conditions of the kidneys, urinary tract and male genital organs, medical indications and medical contraindications, possible complications and side effects, adverse reactions, including serious and unexpected 2. Knowledge of methods for selecting and (or) prescribing medical devices to patients with diseases and conditions of the kidneys, urinary tract and male genital organs, medical indications and medical contraindications, possible

		complications and side effects, adverse reactions, including serious and unexpected. Knowledge: 1. Knowledge of methods of non-drug therapy for diseases and (or) conditions of the kidneys, urinary tract and male genital organs, medical indications and medical contraindications, possible complications and side effects, adverse reactions, including serious and unexpected 2. Knowledge of methods of selection and (or) prescription of medical devices for patients with diseases and conditions of the kidneys, urinary tract and male genital organs, medical indications and medical contraindications, possible complications and side effects, adverse reactions, including serious and unexpected.
	Skill 5: Prevention and treatment of complications, side effects, adverse reactions, including serious and unexpected ones, arising as a result of diagnostic or therapeutic manipulations, the use of drugs and (or) medical devices, non-drug therapy and surgical interventions and manipulations in patients (adults, children).	Skills: 1. Prevent or eliminate complications, side effects, adverse reactions, including serious and unexpected ones, arising as a result of diagnostic or therapeutic manipulations, the use of drugs and medical devices, non-drug therapy. Knowledge: 1. Knowledge of methods for preventing and treating complications, side effects, adverse reactions, including serious and unexpected ones, arising as a result of diagnostic or therapeutic manipulations, the use of drugs and (or) medical devices, non-drug therapy and surgical interventions and manipulations.
	Skill 6: Evaluation of the results of manipulations and surgical interventions performed on patients (adults, children) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs	Skills: 1. Develop a plan for preparing patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs for surgical interventions and manipulations. 2. Develop a plan for postoperative care of patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs, prevent or treat postoperative complications. 3. Monitor the disease and (or) condition of the kidneys, urinary tract and male genital organs, adjust the treatment plan depending on the characteristics of the course of the disease. Knowledge: 1. Knowledge of the principles of preoperative preparation and postoperative care of patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs.
	Skill 7: Prescribing therapeutic nutrition to patients (adults, children) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs	Skills: 1. Prescribe therapeutic nutrition for patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. Knowledge: 1. Knowledge of the principles of selecting therapeutic nutrition for patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs.
	Skill 8: Providing emergency and urgent medical care to patients (adults, children) with diseases and (or) conditions of the	Skills: 1. Provide emergency medical care to patients in urgent conditions caused by diseases and (or) conditions of the kidneys, urinary tract and male genital organs, including in emergency situations: to relieve an acute attack of renal colic. in case of injury to the kidneys, urinary tract and genital organs in men. in case of macrohematuria. in case of anuria. in case of acute inflammatory

ONTÜSTIK-QAZAQSTAN MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Caphedra surgery, otorhinolaryngology and urology Educational program «7R01126 Urology and andrology (adults, children)»		66-11 14p. of 17

	kidneys, urinary tract and male genital organs	diseases of the kidneys, urinary tract and genital organs in men. in case of acute urinary retention, in case of priapism. Knowledge: 1. Knowledge of the principles and methods of providing emergency medical care to patients in urgent conditions caused by diseases and (or) conditions of the kidneys, urinary tract and male genital organs, including in emergency situations.
	Skill 9: Providing palliative care to patients (adults, children) with diseases and/or conditions, as well as neoplasms of the kidneys, urinary tract and male genital organs	Skills: 1. Provide palliative care methods for diseases and/or conditions, as well as for neoplasms of the kidneys, urinary tract and male genital organs. Knowledge: 1. Knowledge of palliative care methods for diseases and/or conditions, as well as for neoplasms of the kidneys, urinary tract and male genital organs.
Job function 3: Conducting medical examinations of patients with persistent impairment of body functions caused by diseases and/or conditions of the kidneys, urinary tract and male genital organs.	Skill 1: Determining medical indications for referring patients with persistent dysfunction of the body caused by diseases of the kidneys, urinary tract and male genital organs for medical and social examination.	Skills: 1. Formulate medical reports based on the results of a medical examination. 2. Determine signs of temporary disability and signs of persistent dysfunction of the human body caused by diseases of the kidneys, urinary tract and male genital organs and the need for care when issuing a sick leave certificate to care for sick family members. 3. Refer patients with persistent dysfunction of the body caused by diseases of the kidneys, urinary tract and male genital organs for medical and social examination. 4. Prepare the necessary medical documentation for patients with persistent dysfunction of the body caused by diseases of the kidneys, urinary tract and male genital organs to undergo medical and social examination. 5. Issue a certificate of incapacity for work to patients with diseases of the kidneys, urinary tract and male genital organs. Knowledge: 1. Order of the Minister of Health of the Republic of Kazakhstan dated November 18, 2020 No. КР ДСМ-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 in the Ministry of Justice of the Republic of Kazakhstan on November 20, 2020 No. 21660). 2. Registration of medical documentation for the implementation of medical and social examination. 3. Medical indications for referring patients with persistent dysfunction of the body caused by poisoning and its consequences, for medical and social examination. 4. Knowledge of the timing of treatment and rehabilitation of patients with dysfunction of the body caused by diseases of the kidneys, urinary tract and male genital organs for medical and social examination.
Job function 4: Conducting and monitoring the effectiveness of medical rehabilitation of patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs, including the	Skill 1: Determining medical indications and medical contraindications for carrying out medical rehabilitation activities for patients (adults, children) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs, including when implementing an	Skills: 1. Determine medical indications for medical rehabilitation of patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs, including when implementing an individual rehabilitation or habilitation program for persons with disabilities. Knowledge: 1. Knowledge of medical indications and contraindications for rehabilitation of patients and persons with disabilities with diseases and (or) conditions of the kidneys, urinary tract and male genital organs, including an individual rehabilitation and habilitation program for persons with disabilities. 2. Knowledge of medical indications and contraindications for prescribing drugs for the purpose of rehabilitation of patients with diseases and (or)

ONTÜSTIK-KAZAQSTAN MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Caphedra surgery, otorhinolaryngology and urology Educational program «7R01126 Urology and andrology (adults, children)»		66-11 15p. of 17

implementation of individual rehabilitation or habilitation programs for persons with disabilities	individual rehabilitation or habilitation program for persons with disabilities, in accordance with the current procedure for organizing medical rehabilitation	conditions of the kidneys, urinary tract and male genital organs, including when implementing an individual rehabilitation and habilitation program for persons with disabilities. 3. Knowledge of medical indications and contraindications for prescribing medical devices to patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs, including when implementing an individual rehabilitation and habilitation program for persons with disabilities.
	Skill 2: Conducting medical rehabilitation activities for patients (adults, children) with diseases and (or) conditions of the kidneys, urinary tract and male genital organs, including when implementing an individual rehabilitation and habilitation program for persons with disabilities	Skills: 1. Develop a plan of activities for medical rehabilitation of patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs, including when implementing an individual rehabilitation or habilitation program for persons with disabilities. 2. Conduct activities for medical rehabilitation of patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs, including when implementing an individual rehabilitation or habilitation program for persons with disabilities. Knowledge: 1. Knowledge of the basics of medical rehabilitation of patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 2. Knowledge of methods of medical rehabilitation of patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 3. Knowledge of the procedure for organizing medical rehabilitation.
Job Function 5: Conducting and monitoring the effectiveness of measures to prevent and promote a healthy lifestyle and sanitary and hygienic education, and patient training	Skill 1: Conducting work to promote a healthy lifestyle, prevent diseases and (or) conditions of the kidneys, urinary tract and male genital organs	Skills: 1. Develop and implement methods for forming a healthy lifestyle. 2. Conduct health education work among patients (their legal representatives), health workers on issues of preventing diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 3. Implement methods for preventing the occurrence and progression of diseases and (or) conditions of the kidneys, urinary tract and male genital organs. Knowledge: 1. Knowledge of the basics of a healthy lifestyle and methods for its formation. 2. Knowledge of the forms and methods of health education work among patients (their legal representatives), health workers on issues of preventing diseases and (or) conditions of the kidneys, urinary tract and male genital organs. 3. Knowledge of the principles and features of preventing the occurrence and progression of diseases and (or) conditions of the kidneys, urinary tract and male genital organs.
	Skill 2: Conducting outpatient observation of patients (adults, children) with chronic diseases and (or) conditions of the kidneys, urinary tract and male genital organs and the disabled	Skills: 1. Conduct regular medical check-ups of patients with identified chronic diseases and (or) conditions of the kidneys, urinary tract and male genital organs. Knowledge: 1. Knowledge of regulatory legal acts and other documents governing the procedure for regular medical check-ups of patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs 2. Knowledge of the principles of regular medical check-ups of patients with diseases and (or) conditions of the kidneys, urinary tract and male genital organs in accordance with regulatory legal acts and other documents.

ONTÜSTIK-QAZAQSTAN MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Caphedra surgery, otorhinolaryngology and urology		66-11
Educational program «7R01126 Urology and andrology (adults, children)»		16p. of 17

		3. Knowledge of the procedure for regular medical check-ups of patients with identified chronic diseases and (or) conditions of the kidneys, urinary tract and male genital organs, including persons with disabilities. 4. Knowledge of the principles and features of health-improving measures among patients with chronic diseases and (or) conditions of the kidneys, urinary tract and male genital organs and persons with disabilities.
	Skill 3: Conducting preventive measures for patients (adults, children) taking into account risk factors in accordance with current procedures for the provision of medical care, clinical guidelines (treatment protocols) on issues of providing medical care, taking into account standards of medical care	Skills: 1. Determine medical indications and contraindications for the use of methods for preventing diseases and (or) conditions of the kidneys, urinary tract and male genital organs. Knowledge: 1. Knowledge of medical indications and contraindications for the use of methods for preventing diseases and (or) conditions of the kidneys, urinary tract and male genital organs.
Job Function 6: 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	Skills: 1. Plan work and prepare a report with an analysis of the indicators of one's own activities. 2. Maintain medical documentation, including in electronic form, and monitor the quality of its maintenance. 3. Conduct an analysis of medical and statistical indicators of the work of a specialized medical department. 4. Use personal data of patients and information in work, 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. ҚР ДСМ-175/2020 "On approval of forms of accounting documentation in the field of health care, as well as instructions for filling them out (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. ҚР ДСМ-313/2020 "On approval of forms of reporting documentation in the field of health care" (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. ҚР ДСМ-244/2020 "On approval of the rules for maintaining primary medical documentation and submitting reports" (registered with the Ministry of Justice of the Republic of Kazakhstan on December 11, 2020 № 21761). 4. Electronic accounting and documentation systems. 5. Confidentiality of patients' medical information. 6. Fundamentals of medical statistics.
Additional Job Function 1: Continuous Professional Development	Skill 1: Commitment to Professional Improvement	Skills: 1. Participate in professional training events: conferences, seminars, webinars, advanced training courses. 2. Participate in academic and scientific activities. 3. Take part in the work of professional associations, committees and working groups to discuss healthcare issues, exchange experiences with colleagues.



		Knowledge: 1. Order of the Minister of Health of the Republic of Kazakhstan dated December 21, 2020 No. ҚР ДСМ-303/2020 "On approval of the rules for additional and informal education of specialists in the field of health care, qualification requirements for organizations implementing educational programs for additional and informal education in the field of health care, as well as the rules for recognizing the learning outcomes obtained by specialists in the field of health care through additional and informal 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. ҚР ДСМ-283/2020 "On approval of the rules for confirming the results of continuous professional development of health workers" (registered with the Ministry of Justice of the Republic of Kazakhstan on December 22, 2020 No. 21843). 3. Opportunities for networking and communication with colleagues from your professional areas. 4. Current trends, research and development in the specialized area.
Personal requirements competencies :	Empathy Sociability Tolerance and respect Cooperation and teamwork Stress resistance Reflection and self-analysis Compliance with professional ethics Openness and willingness to learn Activity and initiative Striving for professionalism development	

Head of the Educational and Methodical center



Doltayeva B. Z.