

## Catalog of elective subjects

1. **The Department of "Surgery"**
2. **The level of training:** Residency
3. **Educational program:** R01126 Urology and andrology (adult, children)
4. **Course:** 1
5. **Name of the elective discipline:** " Anesthesiology and intensive care".
6. **Number of credits:** 4 credits / 120 hours.
7. **Objective** to study the principles of using innovative technologies in anesthesiology and resuscitation in practice. The content of the discipline: Diseases and (or) conditions of the kidneys, urinary tract and male genitalia requiring urgent care.
8. **Tasks:**
  - consolidate the skills of qualified anesthesiological, intensive care and intensive care with the help of innovative technology.
  - teach to apply the principles of management in the organization of their work;
  - to consolidate the need for continuous professional training and improvement of their knowledge and skills based on innovative technology;
9. **Content of disciplines:** Diseases and (or) conditions of the kidneys, urinary tract and male genitalia that require urgent care. Intensive therapy for life-threatening syndromes: acute respiratory failure, acute cardiovascular insufficiency, convulsive and hyperthermic syndromes, shocks. Features of conducting a conversation with the patient's relatives in case of an unfavorable outcome. Preoperative stage and preparation of the patient for anesthesia. Methods of local anesthesia, taking into account the assessment of possible risks. Risk-based local anesthesia techniques.
10. **Rationale for choosing a discipline:** the acquisition of new theoretical knowledge by students and the improvement of professional skills and abilities necessary to provide qualified anesthesiological and resuscitation care to patients with the introduction of innovative technology.
11. **Learning outcomes (competencies).**
  - **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, 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 urological and andrological care.
  - **LO4.** Able to act within the legal and organizational framework of the healthcare system of the Republic of Kazakhstan in the provision of urological and andrological care, provide basic assistance in emergency situations, work as part of interprofessional teams to implement the policy of strengthening the health of the nation.
  - **LO5.** Able to formulate adequate research questions, critically evaluate professional literature, effectively use international databases in the activities of a urologist andrologist, participate in the work of the research team.
  - **LO6.** Able to study independently and teach other members of the professional teams, actively participate in discussions, conferences and other forms of continuous professional development.
12. **Prerequisites:** internship in the speciality "Surgery".
13. **Post-requirements:** doctoral studies.
14. **Literature:**  
**Main:**

1. Kuderinov, S. K. Urology and andrology [Matin] : book / S. K. Kuderinov ; KR Ministry of Health of Aktau; KARM. - Karagandy : LCD "Aknur", 2013. - 160
2. Urology [Text] : textbook / Ministry of Education and Science of the Russian Federation ; edited by D. Yu. Pushkar. - ; Rec. GBOU VPO "I. M. Sechenov First Moscow State Medical University". - Moscow : GEOTAR - Media, 2013. - 380 p.
3. Kuderinov, S. K. Urology and andrology [Text] : textbook / S. K. Kuderinov ; Ministry of Health of the Republic of Kazakhstan; KARSMU. - Karaganda : IP Publishing House "Aknur", 2013. - 184 p.
4. " Urinary system " module [Matin] : integrationlangan okulyk = Module "Urinary system" : integrated textbook / S. K. Zhaugasheva [zh. b.] ; S. B. Zhautikov, S. D. Nursultanova. - M. : Litterra, 2014. - 256 bet. s. : il. - (Integratsion book).
5. Isaeva, L. A. Childs sicknesses. T. 3 [Matin] :book / L. A. Isaeva, N. A. Geppe, K. Askambay. - Almaty : Evero, 2015. - 156 bet p.
6. Isaeva, L. A. Children's diseases. Volume 3 [Text] : textbook / L. A. Isaeva, N. A. Geppe. Almaty : Evero, 2015. - 210 s

**Additional:**

1. Radiation diagnostics and therapy in urology [Text] : national guidelines / ch. ed. volumes A. I. Gromov, V. M. Buylov. - M. : GEOTAR - Media, 2011. - 544 p.
2. Dovlatyan, A. A. Trauma of the genitourinary system (clinic, diagnosis, treatment tactics) [Text] : hands. for doctors / A. A. Dovlatyan. - M. : BINOM, 2012. - 280 s
3. General medical practice. In 2 vols. Vol. 1. [Text] : national leadership / ed. by I. N. Denisov. - M. : GEOTAR - Media, 2016. - 976 p.

**1. The Department of "Surgery"**

**2. The level of training:** Residency

**3. Educational program:"** R01126 Urology and andrology (adult, children)

**4. Course:** 1

**5. Name of the elective discipline:** " Rehabilitation in urology".

**6. Number of credits:** 4 credits / 120 hours.

**7. Objective:** 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. Tasks:**

- Improvement of knowledge on the etiology, pathogenesis and rehabilitation of the urinary tract;
- Expansion of the knowledge of new technologies and interpretations of modern laboratory, invasive, non-invasive methods of treatment and rehabilitation of patients with urological diseases;
- Study of modern innovative methods of treating patients with neurological diseases;

**9.Contentofdisciplines:** Indications and contraindications for the rehabilitation of patients with diseases of the genitourinary system. Development of a rehabilitation action plan. Collaboration with rehabilitation specialists. Referral of urological patients to specialist doctors for the implementation of rehabilitation measures, sanatorium treatment, including the implementation of an individual rehabilitation program or habilitation of disabled people. Conducting

rehabilitation. Communication with patients. Assessment of the effectiveness and safety of rehabilitation. Training in rehabilitation skills and transfer of experience to resident doctors.

**10. Rationale for choosing a discipline:** In the conditions of dynamic development and development of new technologies for the rehabilitation of urinary tract diseases, it is necessary to qualitatively improve the knowledge and professional skills of urologists in this field. Taking into account the above, the process of studying the discipline is aimed at forming elements of specific competencies that contribute to a significant improvement in the professional activity of a specialist, So there is an increase in the quality of medical assistance to the population for the treatment of urological disease.

#### **11. Learning outcomes (competencies).**

- **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, 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 urological and andrological care.
- **LO4.** Able to act within the legal and organizational framework of the healthcare system of the Republic of Kazakhstan in the provision of urological and andrological care, provide basic assistance in emergency situations, work as part of interprofessional teams to implement the policy of strengthening the health of the nation.
- **LO5.** Able to formulate adequate research questions, critically evaluate professional literature, effectively use international databases in the activities of a urologist andrologist, participate in the work of the research team.
- **LO6.** Able to study independently and teach other members of the professional teams, actively participate in discussions, conferences and other forms of continuous professional development.

**12. Prerequisites:** internship in the speciality "Surgery".

**13. Post-requirements:** doctoral studies.

#### **14. Literature:**

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3. Kuderinov, S. K. Urology and andrology [Text] : textbook / S. K. Kuderinov ; Ministry of Healthcare RK; KARGMMU. - Karaganda : IP Publishing House "Aknur", 2013. - 184 p.
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2. **The level of training:** Residency
3. **Educational program:** R01126 Urology and andrology (adult, children)
4. **Course:** 1
5. **Name of the elective discipline:** " Examination of temporary disability "
6. **Number of credits:** 4 credits / 120 hours.
7. **Objective:** Training of a qualified specialist doctor capable of carrying out an examination of working capacity, which is one of the important sections of the work of health authorities. The examination of disability is closely related to clinical disciplines, the system of social insurance and social security.

**8. Tasks:**

- The main task of the examination is to establish the grounds for the temporary suspension from work of a particular person complaining of an illness, as well as for his transfer to a position with facilitated working conditions. To achieve these goals , the expert commission is assigned the following tasks:
  - analysis of the state of health of a citizen and the peculiarities of the course of the disease;
  - verification of the treatment prescribed by the doctor, as well as its effectiveness (specialized specialists are part of the disability commission);
  - preparation of an opinion on whether a person can start a full-fledged work activity at his place of work;
  - extension of sick leave.
9. **Content of disciplines:** Conducting an examination of temporary disability. Review of professional literature and legal acts. Preparation of necessary medical documentation. Conducting medical examinations, including periodic and preliminary ones. Features of interaction with a patient with persistent disability. Indications for referral of patients for medical and social examination. Diagnosis of temporary disability and persistent disability. The procedure for issuing disability certificates.
  10. **Rationale for choosing a discipline:** provision of specialized, including high-tech, medical care in the profile "urology" based on the standards of medical care for patients with urological diseases of the genitourinary system, including using the method of X-ray shock wave remote lithotripsy; provision of advisory assistance to doctors of other departments of the medical organization on the prevention, diagnosis and treatment of patients with urological diseases of the genitourinary system;

development and implementation of measures aimed at improving the quality of medical and diagnostic work and reducing hospital mortality from diseases of the genitourinary system;

mastering and introducing into clinical practice modern methods of prevention, diagnosis, treatment and rehabilitation of patients;

**11. 11.Learning outcomes (competencies).**

- **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, 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 urological and andrological care.
- **LO4.** Able to act within the legal and organizational framework of the healthcare system of the Republic of Kazakhstan in the provision of urological and andrological care, provide basic assistance in emergency situations, work as part of interprofessional teams to implement the policy of strengthening the health of the nation.
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- **LO6.** Able to study independently and teach other members of the professional teams, actively participate in discussions, conferences and other forms of continuous professional development.

**12. Prerequisites:** internship in the speciality "Surgery".

**13. Post-requirements:** doctoral studies.

**14. Literature:**

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**3. Educational program:** R01126 Urology and andrology (adult, children)

**4. Course:** 1

**5. Name of the elective discipline:** " Organization of work in the Department of Urology ".

**6. Number of credits:** 4 credits / 120 hours.

**7. Objective:** Training of a qualified urologist-andrologist in the Department of urology, acquisition and improvement of theoretical and practical knowledge, skills, skills based on modern scientific achievements in the field of urological care in a hospital; mastering diagnostic methods and urological interventions in the volume of inpatient care.

**8. Tasks:**

- Improvement of knowledge on the etiology, pathogenesis and rehabilitation of the urinary tract;
- Expanding knowledge and skills of interpretation of modern laboratory, invasive and non-invasive methods of treatment and rehabilitation of patients with urological diseases.
- Study of modern innovative methods of treatment of patients with urological diseases;

**9. Content of disciplines:** Rules of registration of medical documentation for the profile "urology". The organization of labor protection, the basics of personal security and conflictology. Rules of work in medical information systems. Job responsibilities of medical workers of the urological profile, taking into account the legal field. Control of the performance 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.

**10. Rationale for choosing a discipline:** : provision of specialized, including high-tech, medical care in the profile "urology" based on the standards of medical care for patients with urological diseases of the genitourinary system, including using the method of X-ray

shock wave remote lithotripsy. Provision of advisory assistance to doctors of other departments of the medical organization on the prevention, diagnosis and treatment of patients with urological diseases of the genitourinary system; development and implementation of measures aimed at improving the quality of medical and diagnostic work and reducing hospital mortality from diseases of the genitourinary system; mastering and introducing into clinical practice modern methods of prevention, diagnosis, treatment and rehabilitation of patients;

**11. Learning outcomes (competencies).**

- **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.
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**13. Post-requirements:** doctoral studies.

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2. **The level of training:** Residency
3. **Educational program:** R01126 Urology and andrology (adult, children)
4. **Course:** 1
5. **Name of the elective discipline:** " Neurosurology and urodynamics".
6. **Number of credits:** 4 credits / 120 hours.
7. **Objective:** Preparation of a qualified urologist-andrologist possessing a system of universal, professional competencies, capable and ready for independent professional activity in the conditions of primary medical care; specialized, including high-tech medical care.
8. **Tasks:**
  - Improvement of knowledge in clinical neurophysiology of micturition and pathophysiology of pelvic pain;
  - Expansion of knowledge and skills in interpreting modern laboratory, invasive, non-invasive methods of treatment and rehabilitation of patients with neurourological and neuropelvioperineological disorders;
  - Study of modern innovative treatment methods for patients and conducting comprehensive urodynamic studies;
9. **Content of disciplines:** 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.
10. **Rationale for choosing a discipline:** The program aims to systematize and deepen the theoretical knowledge and practical skills of participants in the diagnosis and treatment of neurourological pathology, study modern high-tech diagnostic and therapeutic methods from the standpoint of evidence-based medicine, as well as practical training based on the department of expert urogynecology and neurourology, participation in invasive and non-invasive urodynamic studies and management of patients with confirmed neurourological diagnosis. Special emphasis is placed on managing patients with pelvic pain.
11. **Learning outcomes (competencies).**
  - **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, 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 urological and andrological care.
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  - **LO5.** Able to formulate adequate research questions, critically evaluate professional literature, effectively use international databases in the activities of a urologist andrologist, participate in the work of the research team.
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