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Документ подписан простой электронной подписью Khanty—Mansiysk Autonomous Okrug-Ugra "Surgut State University"

> Approved by Deputy Rector for Academic Affairs E.V. Konovalova

> > June 11, 2025 No. 5

Urology

Syllabus

Department Surgical diseases

Curriculum s310501-ЛечДелоИн-25-5.plx 31.05.01 General Medicine Specialty

Qualification **General Practitioner**

Form of education **Full-time**

Total (in credits) 2

Total academic hours Control: credit/mark, 9th term 72

including:

Contact 64 Self-study

Course outline in terms

| r in the course>) | 9 (5.1) | | Total | |
|-------------------|---------|----|-------|----|
| Weeks | 17 2/6 | | | |
| Types of classes | УП | РΠ | УП | РΠ |
| Lectures | 16 | 16 | 16 | 16 |
| Practical | 48 | 48 | 48 | 48 |
| Classes total | 64 | 64 | 64 | 64 |
| Contact work | | 64 | 64 | 64 |
| Self-study | 8 | 8 | 8 | 8 |
| Total | 72 | 72 | 72 | 72 |

The Syllabus is compiled by:

PhD in Medical Sciences (Surgery), Head of Department, Vladimir Vasilievich Darvin; Lecturer, Arsen Abdulsalamovich Mirzakadiev; Assistant, Samuil Daniilovich Klyuev.

The Syllabus

Urology

Developed in accordance with Federal State Educational

Standard:

Federal State Educational Standard of higher education in the specialty 31.05.01 General medicine (Order of the Ministry of Education and Science of the Russian Federation on August 12, 2020 No. 988)

Based on the Curriculum:

31.05.01 GENERAL MEDICINE Specialization: General Medicine

Approved by the Academic Council of Surgut State University, "11" June 2025, Record No.5

The Syllabus was approved by the department

Surgical diseases

Head of Department, Doctor of Medicine, Professor Darvin V.V.

1. COURSE OBJECTIVES

- 1.3 The aim of mastering the discipline "Urology" is to develop the ability to make a diagnosis, conduct differential diagnostics and solve tactical issues in the main nosological forms of urological pathology, including urgent, in their typical and complicated course with the justification of personalized diagnostic, therapeutic and preventive measures from the standpoint of evidence-based medicine, as well as knowledge of modern principles of providing emergency medical care for urgent urological diseases and conditions and their complications, including pregnant women and elderly and senile persons; training in the necessary volume of practical skills for independent medical practice in the examination and treatment of urological patients, the rules for maintaining medical records and organizing the activities of medical personnel.
- 1.4 The **objective** of the course is the development of students' personal qualities and the formation of general cultural (general scientific, social and personal, instrumental), general professional and professional competencies in accordance with the Federal Educational Standards of Higher Education.

2. COURSE OVERVIEW

Course code (in curriculum)

Б1.О.04

2.1 Assumed background knowledge:

General Pathologic Anatomy

X-Ray diagnostics

Biochemistry

General Pathological Physiology

Pharmacology

Propedeutics of Internal Medicine

Normal Human Anatomy

Histology, Embryology, Cytology

Normal Physiology

Microbiology, Virology

2.2 Post requisites:

Hospital Surgery, Pediatric Surgery

Faculty Therapy

Obstetrics

Gynecology

Faculty Surgery

Oncology, Radiation Therapy

Hospital Therapy (5 course)

Hospital Therapy (6 course)

Hospital Surgery. Pediatric Surgery

Hospital Surgery

3. COMPETENCES UPON COMPLETION OF THE COURSE (MODULE)

PC-8.2: Maintains medical records, including an electronic form

PC-5.1: Demonstrates knowledge of the mechanisms of action, methods of application of pharmacotherapy, therapeutic nutrition, medical devices and methods of non-drug treatment, palliative and personalized medical care

- PC-5.2: Treats various categories of patients with diseases on an outpatient basis, in hospitals and centers of high-tech medical care (HMP) with the use of drugs, medical devices and medical nutrition, taking into account the clinical picture, in accordance with current procedures, standards of medical care, clinical guidelines (treatment protocols)
- PC-5.4: Demonstrates knowledge of side effects of drugs, methods of their administration, knowledge of the duration of their use and assesses the effectiveness and safety of pharmacotherapy, medical nutrition and the use of non-drug treatment, medical nutrition, palliative care
- PC-3.1: Examines the patient (collects and analyzes the patient's complaints, data from his anamnesis, physical data based on the examination results, determines the necessary examination plan, evaluates the parameters of laboratory, instrumental, pathological and anatomical and other research methods in order to diagnose diseases, assesses the prognosis (briefly -, medium-, long-term) of its course and outcomes
- PC-3.2: Formulates a preliminary and clinical diagnosis in accordance with the International Statistical Classification of Diseases and Related Health Problems X XI revisions and current clinical classifications
- PC-3.3: Conducts early and differential diagnosis of diseases
- PC-3.4: Carries out routing and management of patients on the basis of current legislation (standards, procedures for the provision of medical care, Clinical guidelines)
- PC-1.1: Demonstrates knowledge about etiology, pathogenesis, diagnostic criteria (clinical subjective, physical, laboratory, instrumental) determines the patient's main pathological conditions, symptoms, disease syndromes and diagnoses nosological forms according to the International Statistical Classification of Diseases and Related Health Problems, X XI revisions
- PC-1.2: Carries out differential diagnostics, evaluates the prognosis (short-, medium- and long-term) of the course of the disease, reveals complications of acutely arisen and complications of chronic diseases

By the end of the course students must:

3.1 know:

- 1. Etiology, pathogenesis, diagnostic criteria (clinical subjective, physical, laboratory, instrumental) basic pathological conditions, symptoms, syndromes of urological diseases, classification of nosological forms in accordance with the International Statistical Classification of Diseases and Problems Related to Health, X XI revisions
- 2. Principles of differential diagnosis and prognosis of the course of urological diseases, diagnosis of acute complications and complications of chronic diseases.
- 3. Clinical manifestations of urological diseases, methods of examination and clarifying diagnostics, as well as their peculiarities of pregnant women and elderly and senile persons.
- 4. Principles of routing and management of urological patients on the basis of current legislation (standards, procedures for the provision of medical care, Clinical guidelines), treatment on an outpatient basis, in hospitals and high-tech medical care (HMP) centers with the use of drugs, medical devices and medical nutrition taking into account the clinical picture, in accordance with current procedures, standards of medical care, clinical guidelines (treatment protocols).
- 5. Mechanisms of action, methods of application of pharmacotherapy, medical nutrition, medical devices and methods of non-drug treatment, palliative and personalized medical care in urological patients.
- 6. Side effects of drugs, methods of their administration, knowledge of the duration of their use, criteria for the effectiveness and safety of pharmacotherapy, medical nutrition and the use of non-drug treatment, medical nutrition of palliative care in urological patients.
- 7. Principles of maintaining medical records, including an electronic form

3.2 be able to:

Identify the main pathological conditions, symptoms, syndromes of urological diseases in a patient on the basis of physical, laboratory and instrumental data.

Conduct differential diagnostics, assess the prognosis (short-, medium- and long-term) of the course of urological disease, identify acute complications and complications of chronic diseases.

Conduct an examination of a urological patient (collect and analyze the patient's complaints, data of his anamnesis, physical data based on the results of the examination, determine the necessary examination plan, evaluate the parameters of laboratory, instrumental, pathological and anatomical and other research methods in order to diagnose diseases, evaluate the prognosis of its course and outcomes.

Formulate a preliminary and clinical diagnosis in accordance with the International Statistical Classification of Diseases and Health Problems X - XI revisions and current clinical classifications;

Conduct early diagnosis and differential diagnosis of urological diseases.

Carry out the routing and management of urological patients on the basis of the current legislation (standards, procedures for the provision of medical care, Clinical guidelines).

Prescribe pharmacotherapy, clinical nutrition, the use of medical devices and methods of non-drug treatment, palliative and personalized medical care for urological diseases, taking into account the side effects of drugs, assess the effectiveness and safety of pharmacotherapy, nutritional therapy and the use of non-drug treatment, palliative care.

Carry out treatment for various categories of patients with urological diseases on an outpatient basis, in hospitals and high-tech medical care (HMP) centers with the use of drugs, medical devices and medical nutrition, taking into account the clinical picture, in accordance with current procedures, standards of medical care, clinical guidelines (treatment protocols);

Maintain medical records, including an electronic form.

| Class Code | Topic /class type/ | Term/Ac. year | Academic hours | Competences | Literature |
|------------|--|------------------|-------------------|---|-----------------------------------|
| | 1. Urology | | | | |
| 1.1 | Semiotics and symptomatology of urological diseases. Instrumental methods of examination /Lecture/ | 9 | 2 | PC-1.1 PC-1.2 PC 3.1 PC 3.2 PC 3.3 PC 3.4 PC 5.1 PC 5.2 PC 8.2 | L1.1, L1.2, L2.1, L3.1, E1, E2 |
| 1.2 | X-ray, radioisotope, ultrasound examination methods, computer and magnetic resonance imaging /Lecture/ | 9 | 4 | PC-1.1 PC-1.2 PC 3.1 PC 3.2 PC 3.3 PC 3.4 PC 5.1 PC 5.2 PC 8.2 | L1.1, L1.2, L2.1, L3.1, E1, E2 |
| 1.3 | Semiotics and symptomatology of urological diseases. Instrumental methods of examination /Practical classes/ | 9 | 4 | PC-1.1 PC-1.2 PC 3.1 PC 3.2 PC 3.3 PC 3.4 PC 5.1 PC 5.2 PC 8.2 | L1.1, L1.2, L2.1, L3.1, E1, E2 |
| 1.4 | X-ray, radioisotope, ultrasound examination methods, computer and magnetic resonance imaging /Practical classes/ | 9 | 4 | PC-1.1 PC-1.2 PC 3.1 PC 3.2 PC 3.3 PC 3.4 PC 5.1 PC 5.2 PC 8.2 | L1.1, L1.2, L2.1, L3.1, E1, E2 |
| 1.5 | Nephrolithiasis /Lecture/ | 9 | 2 | PC-1.1 PC-1.2 PC 3.1 PC 3.2 PC 3.3 PC 3.4 PC 5.1 PC 5.2 PC 8.2 | L1.1, L1.2, L2.1, L3.1, E1, E2 |
| 1.6 | Nephrolithiasis /Practical classes/ | 9 | 4 | PC-1.1 PC-1.2 PC 3.1 PC 3.2 PC 3.3 PC 3.4 PC 5.1 PC 5.2 PC 8.2 | L1.1, L1.2, L2.1, L3.1, E1, E2 |
| 1.7 | Nephrolithiasis / Self-study / | 9 | 2 | PC-1.1 PC-1.2 PC 3.1 PC 3.2 PC 3.3 PC 3.4 PC 5.1 PC 5.2 PC 8.2 | L1.1, L1.2, L2.1, L3.1, E1, E2 |
| 1.8 | Tumor of the kidney and bladder. Benign hyperplasia and prostate cancer /Lecture/ | 9 | 2 | PC-1.1 PC-1.2 PC 3.1 PC 3.2 PC 3.3 PC 3.4 PC 5.1 PC 5.2 PC 8.2 | L1.1, L1.2, L2.1, L3.1, E1, E2 |
| 1.9 | Tumor of the kidney and bladder. Benign hyperplasia and prostate cancer /Practical classes/ | 9 | 4 | PC-1.1 PC-1.2 PC 3.1 PC 3.2 PC 3.3 PC 3.4 PC 5.1 PC 5.2 PC 8.2 | L1.1, L1.2, L2.1, L3.1, E1, E2 |

| 1.10 | Tumor of the kidney and bladder. Benign hyperplasia and prostate cancer / Selfstudy / | 9 | 2 | PC-1.1 PC-1.2 PC L1.1, L1.2, 3.1 PC 3.2 PC 3.3 L2.1, L3.1, E1, E2 PC 3.4 PC 5.1 PC 5.2 PC 8.2 |
|------|---|---|---|--|
| 1.11 | Hydronephrosis and abnormalities of the genitourinary system /Lecture/ | 9 | 2 | PC-1.1 PC-1.2 PC L1.1, L1.2, 3.1 PC 3.2 PC 3.3 L2.1, L3.1, E1, E2 PC 3.4 PC 5.1 PC 5.2 PC 8.2 |
| 1.12 | Hydronephrosis and abnormalities of the genitourinary system /Practical classes/ | 9 | 4 | PC-1.1 PC-1.2 PC 3.1 PC 3.2 PC 3.3 PC 3.4 PC 5.1 PC 5.2 PC 8.2 |
| 1.13 | Tuberculosis of the genitourinary system. Acute and chronic renal failure / Lecture / | 9 | 2 | PC-1.1 PC-1.2 PC L1.1, L1.2, 3.1 PC 3.2 PC 3.3 L2.1, L3.1, E1, E2 PC 3.4 PC 5.1 PC 5.2 PC 8.2 |
| 1.14 | Tuberculosis of the genitourinary system. Acute and chronic renal failure /Practical classes/ | 9 | 4 | PC-1.1 PC-1.2 PC L1.1, L1.2, 3.1 PC 3.2 PC 3.3 L2.1, L3.1, E1, E2 PC 3.4 PC 5.1 PC 5.2 PC 8.2 |
| 1.15 | Tuberculosis of the genitourinary system. Acute and chronic renal failure / Self-study / | 9 | 2 | PC-1.1 PC-1.2 PC L1.1, L1.2, 3.1 PC 3.2 PC 3.3 L2.1, L3.1, E1, E2 PC 3.4 PC 5.1 PC 5.2 PC 8.2 |
| 1.16 | Pyelonephritis (acute and chronic) and nephrogenic hypertension /Lecture/ | 9 | 4 | PC-1.1 PC-1.2 PC L1.1, L1.2, 3.1 PC 3.2 PC 3.3 L2.1, L3.1, E1, E2 PC 3.4 PC 5.1 PC 5.2 PC 8.2 |
| 1.17 | Pyelonephritis (acute and chronic) and nephrogenic hypertension /Practical classes/ | 9 | 2 | PC-1.1 PC-1.2 PC L1.1, L1.2, 3.1 PC 3.2 PC 3.3 L2.1, L3.1, E1, E2 PC 3.4 PC 5.1 PC 5.2 PC 8.2 |
| 1.18 | Pyelonephritis (acute and chronic) and nephrogenic hypertension / Self-study / | 9 | 8 | PC-1.1 PC-1.2 PC L1.1, L1.2, 3.1 PC 3.2 PC 3.3 L2.1, L3.1, E1, E2 PC 3.4 PC 5.1 PC 5.2 PC 8.2 |
| 1.19 | Emergency urology (renal colic, bleeding, acute urinary retention, anuria) Injuries of the genitourinary system /Lecture/ | 9 | 4 | PC-1.1 PC-1.2 PC 3.1 PC 3.2 PC 3.3 PC 3.4 PC 5.1 PC 5.2 PC 8.2 |
| 1.20 | Emergency urology (renal colic, bleeding, acute urinary retention, anuria) Injuries of the genitourinary system /Practical classes/ | 9 | 4 | PC-1.1 PC-1.2 PC 3.1 PC 3.2 PC 3.3 PC 3.4 PC 5.1 PC 5.2 PC 8.2 L2.1, L3.1, E1, E2 |
| 1.21 | Emergency urology (renal colic, bleeding, acute urinary retention, anuria) Injuries of the genitourinary system /Self-study/ | 9 | 2 | PC-1.1 PC-1.2 PC L1.1, L1.2, 3.1 PC 3.2 PC 3.3 L2.1, L3.1, E1, E2 PC 3.4 PC 5.1 PC 5.2 PC 8.2 |
| 1.22 | Final lesson /Practical classes/ | 9 | 4 | PC-1.1 PC-1.2 PC L1.1, L1.2, 3.1 PC 3.2 PC 3.3 L2.1, L3.1, E1, E2 PC 3.4 PC 5.1 PC 5.2 PC 8.2 |
| 1.23 | Control work | 9 | 0 | PC-1.1 PC-1.2 PC Control work 3.1 PC 3.2 PC 3.3 PC 3.4 PC 5.1 PC 5.2 PC 8.2 |
| 1.24 | Credit with assessment | 9 | 0 | PC-1.1 PC-1.2 PC 3.1 PC 3.2 PC 3.3 PC 3.4 PC 5.1 PC 5.2 PC 8.2 |

| | 5. FUND OF ASSESSMENT TOOLS | |
|-------------|-----------------------------|--|
| | 5.1. Tests and tasks | |
| Supplements | | |

| | | 5.2. Topics for written | papers | |
|---------|---|---|---|----------|
| Suppl | ements | | | |
| 6. CO | URSE (MODULE) RESOU | RCES | | |
| | | 6.1. Recommended Lite | erature | |
| | | 6.1.1. Core | | |
| | Authors | Title | Publish., year | Quantity |
| L1.1 | Lopatkin N.A., Askarov M.S | Urology: textbook | Moscow: GEOTAR-Media, 2014, electronic resource | 1 |
| L1.2 | Glybochko P.V., Alyaev Yu.G., Grigoriev N.A. | Urology. From symptoms to diagnosis and treatment. Illustrated guide: study guide | | 1 |
| | | 6.1.2. Supplementa | ry | |
| | Authors | Title | Publish., year | Quantity |
| L2.1 | Alyaev Yu.G., Grigoriev N.A. | Urology. Illustrated practical course: study guide | Moscow: GEOTAR-Media, 2011, electronic resource | 1 |
| | | 6.1.2. Methodolog | y | |
| Authors | | Title | Publish., year | Quantity |
| L3.1 | IRazin M.P., Galkin V.N., Sukhikh N.K. | Pediatric urology andrology: textbook | Moscow: GEOTAR-Media, 2011, electronic resource | 1 |
| | | 6.2. Internet resour | rces | |
| Е | 1 FREE MEDICAL JOU | RNALS. Access mode: http://www.f | reemedicaljournals.com | |
| Е | New England Journal o | of Medicine. Access mode: | | |

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|-----|---|
| | Classrooms for lectures are equipped with a multimedia projector, screen, laptop, stationary chalk board, standard educational furniture: tables, chairs |
| | Classes of practical type, group and individual consultations, current control and interim certification are held in the classrooms of the Department of Surgical Diseases of the Khanty-Mansi Autonomous Okrug-Yugra "SGKB" and SOKB |
| | Premises of BU KhMAO-Yugra "Surgut City Clinical Hospital" and SOKB: training rooms (2) in the surgical building, equipped with the necessary specialized training furniture and technical means to provide educational information to students, equipped with seating, tables, blackboard and chalk; equipped with multimedia projector (2), computer (2), vide double for demonstration of videos (1). |
| 7.4 | Tables, posters, charts, drawings. |
| 7.5 | Simulators. |
| 7.6 | Endovideoscopy suite with instruments, torso with interchangeable modules for performing video endoscopy. |
| | Operating room, dressing room, examination room in the emergency room, wards, intensive care rooms, conference room Facilities: The premises of this facility, provided for the provision of medical care to patients, including those related to medical interventions, are equipped with specialized equipment and (or) medical devices (tonometer, stethoscope, phonendoscope, thermometer, medical scales, rostometer, anti-shock kit, set and packing for emergency preventive and therapeutic measures, electrocardiograph, bactericidal irradiator, equipment for determination of blood group and Rh factor with reagents, gastroscope with biopsy kit, colonoscope with biopsy kit, rectosigmoscope with biopsy kit, cystoscope with biopsy kit, ultrasound diagnostic apparatus, anesthesia-breathing apparatus, artificial lung ventilation apparatus, infusomat, postoperative suction machine, defibrillator with synchronization function, apparatus for monitorio of basic functional parameters, respiratory mixture analyzer, electroencephalograph, defibrillator with synchronization function, apparatus for continuous plasmapheresis, apparatus for hemodialysis and ultrafiltration of blood) and consumables in the amount that allows students to master the skills provided by the professional activity, individually, a well as other equipment necessary for the implementation of the training program in faculty surgery, urology. |
| | Auditoriums of the MI simulation center equipped with phantom and simulation equipment, laboratory instruments and consumables in sufficient quantity |
| ı | |
| | BenQ multimedia projector |

7. LOGISTICS AND TECHNICAL SUPPORT OF THE DISCIPLINE (MODULE)

| 7.11 | ResusciJunior CPR practice manikin |
|------|---|
| 7.12 | NursingKid mannequin - (child of 7 years old with variable physiology for practicing therapeutic and diagnostic measures) |
| 7.13 | Trainer for carrying out p/k, v/m injections. |
| 7.14 | Trainer for administering IV injections. |
| 7.15 | Nursingkid Trainer, Nursingbaby. |
| 7.16 | Tonometer, phonendoscope. |
| 7.17 | Infusion system |
| 7.18 | Syringe set |
| 1 | Cubital catheters |
| | Fixing patch |
| 7.21 | Drug simulators |
| 7.22 | Aspirator |
| | Conditions for education of persons with disabilities are created |
| | Air compressor |
| 7.25 | Vacuum aspirator |
| 7.26 | Lineomat |
| | Nelaton, Foley urinary catheters |
| 7.28 | Gastric tube |
| | Nasogastric tube |
| 7.30 | Trainer for enema placement. Esmarch mug |
| | Dressings |
| 7.32 | Medical Trays. |
| | Medical Furniture. |
| | Library of laboratory and instrumental examination results |
| | Roles for standardized patients |
| | Library of situational tasks |
| | Clinical Scenario Library |
| | Library of scorecards |
| 7.39 | Conditions for the education of persons with disabilities. |