

Federal State Autonomous Educational Institution of Higher Education
«Peoples' Friendship University of Russia»

Medical Institute

Recommended MCSD

SYLLABUS
(STUDY GUIDE)

Subject

Endoscopic Urology

Recommended for the direction of training (specialty)

31.05.01 General Medicine

Program (profile, specialization)

General Medicine

1. The purpose and objectives of the discipline.

The purpose – preparation of students' knowledge of the main clinical manifestations of urological diseases, methods of diagnosis, differential diagnosis and treatment:

The objectives – to provide theoretical and practical training of doctors in the specialty of general medicine in modern diagnostics and treatment of urological diseases.

2. Place of discipline in the structure of EP HE:

Discipline Endoscopic urology belongs to the *basic* part of block 1 of the curriculum.

Table number 1 shows the previous and subsequent disciplines, aimed at the formation of discipline competencies in accordance with the competence matrix of EP HE.

Table № 1

Preceding and following disciplines aimed at shaping competencies

№ II/	Code and name of competence	Previous disciplines	Subsequent disciplines (groups of disciplines)
General professional competencies			
	GPC-1 GPC-6 GPC-8	Topographic anatomy and operative surgery; Life safety	Disaster Medicine
Professional competencies (type of professional activity)			
	PC-1	Pathophysiology; Clinical; Pathophysiology Epidemiology; Medical rehabilitation; Outpatient therapy; Infectious illness; Pediatrics; Obstetrics and gynecology	Examination of temporary disability

The process of studying the discipline is aimed at the formation of the following competencies:

Table 2

Formed competencies

Competencies	Competency name	Competence achievement indicators
GPC-1	Being able to implement moral and legal norms, ethical and deontological principals in professional activity	GPC-1.1. Being able to abide by the ethical standards and legal regulations in professional activity. GPC-1.2. Being able to present professional information in the process of intercultural interaction observing the principles of ethics and deontology.

GPC-6	<p>Being able to organize patient care, provide primary health care, arrange work and make professional decisions in emergency conditions at the prehospital stage, in emergency situations, epidemics and in foci of mass destruction</p>	<p>GPC-6.1. Mastering the algorithm for providing first aid in emergency conditions, including in extreme conditions and foci of mass destruction.</p> <p>GPC-6.2. Being able to identify the conditions which require emergency medical care, including clinical signs of sudden cessation of blood circulation and respiration.</p> <p>GPC-6.3. Being able to provide emergency medical care to patients in conditions that pose a threat to the life of a patient, including clinical death (cessation of the vital bodily functions (blood circulation and (or) breathing)).</p>
GP-8	<p>Being able to implement and monitor the efficacy of medical rehabilitation of a patient, including when implementing individual rehabilitation and habilitation programmes for persons with disabilities; assess the patient's ability to work</p>	<p>GPC-8.1. Being able to determine the medical indications for medical rehabilitation measures, including when implementing an individual rehabilitation or habilitation programme for persons with disabilities.</p> <p>GPC-8.2. Being able to carry out measures of medical rehabilitation of a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the medical care standards.</p> <p>GPC-8.3. Being able to determine medical specialists for carrying out rehabilitation measures to a patient in need of medical rehabilitation taking into account the diagnosis and in accordance with the current procedures for the provision of medical care.</p> <p>GPC-8.4. Being able to prescribe sanatorium-resort therapy to a patient in need of medical rehabilitation, including when implementing an individual rehabilitation or habilitation programme for persons with disabilities.</p> <p>GPC-8.5. Being able to monitor the implementation of rehabilitation measures and evaluate their efficacy and safety, including when implementing an individual programme for the rehabilitation or habilitation of persons with disabilities, taking into account the diagnosis in accordance with the current procedures for the provision of medical care.</p>
PC-1	<p>Being able to provide emergency or urgent medical care to a patient</p>	<p>PC-1.1. Being able to assess the condition of a patient who needs emergency or urgent medical care.</p> <p>PC-1.2. Being able to recognize conditions that arise from sudden acute diseases, exacerbation of chronic diseases without obvious signs of a threat to the patient's life and which require emergency medical care.</p>

		<p>PC-1.3. Being able to provide emergency medical care to patients with sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life.</p> <p>PC-1.4. Being able to recognize conditions which pose a threat to the patient's life, including conditions of clinical death (cessation of the vital bodily functions (blood circulation and/or respiration) which require emergency medical care.</p> <p>PC-1.5. Being able to provide emergency medical care to patients in conditions which pose a threat to the patient's life, including clinical death (cessation of the vital bodily functions (blood circulation and/or respiration).</p> <p>PC-1.6. Being able to use drugs and medical devices when providing medical care in emergency or urgent forms.</p>
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As a result of studying the discipline, the student must:

To know: Clinical manifestations of urological diseases.

- Diagnostic value of laboratory, radiological, ultrasound, endoscopic, radioisotope, magnetic resonance methods of research in urology
- The main methods of treatment of urological patients (surgical, medicinal methods)
- A set of methods for providing specialized care to urological patients
- The system of dispensary observation of urological patients and methods of treatment of relapses of diseases

To be able to:

- perform an examination, physical examination of patients with urological diseases (percussion, palpation and auscultation), identifying the main symptoms of the disease and planning an instrumental clarifying diagnosis;
- during the general examination of the patient, determine the facial expression, the state of consciousness and the adequacy of perception of the environment, the position in bed, the physique, the constitution, the state of nutrition, the presence of a temperature reaction, skin and visible mucous membranes (coloration, presence of rashes, nodes, hemorrhages of lymph nodes, subcutaneous tissue, muscles);
- when examining patients with urological diseases, collect anamnesis, conduct objective examinations, evaluate the data of laboratory tests of urine and blood in a patient with urolithiasis,
- if the patient has acute abdominal pain, conduct differential diagnostics aimed at confirming or excluding renal colic, taking into account the skills acquired during the lesson. Stop renal colic. According to the appearance of independently outgoing urinary concretions, determine their predominant chemical composition.
- to determine the sequence of radiological, radioisotope and ultrasound methods of examination in case of suspected urolithiasis,
- to assess the state of the urinary tract, to identify the shadows of urinary calculi on the overview image of the urinary system, excretory urograms, retrograde ureteropielo gram, qi hundred gram.

- determine the indications for surgery (planned or urgent) and conservative treatment. Palpate and percutate the kidney. To find signs characteristic of a kidney tumor on urograms and tomograms.
- determine the varicocele. Perform bimanual palpation for bladder tumors. To find symptoms characteristic of a bladder tumor on cystograms and urograms (to distinguish a contour defect, a filling defect, dilation of the upper urinary tract). To determine the cystoscopic picture of tumors on the phantoms of the bladder. Palpate and percute the bladder. Perform a finger rectal examination of the prostate gland. Interpret prostate adenoma on cystograms. Find prostate cancer metastases in bones on scintigrams. Detect latent leukocyturia. Interpret the results of bacteriological examination of urine,
- apply X-ray methods of investigation for the diagnosis of acute and chronic pyelonephritis.
- perform catheterization of the bladder on the phantom with various types of catheters. Perform catheterization of the bladder of a patient with a rubber catheter. Perform a chromocystoscopy. Interpret various cystoscopic pictures (on the phantom and in the atlas). To interpret the results of radioisotope methods for studying the functional ability of the kidneys. On an overview urogram, determine the contours of the kidneys, the line of the edge of the lumbar muscle, the shadows of true urinary concretions and false ones (phlebolitis, calcified lymph nodes, etc.).
- Perform excretory urography and calculate the required amount of contrast agent administered, taking into account the patient's body weight. Perform retrograde, including mycological cystography. Provide first aid for idiosyncrasy to iodine-containing radiopaque drugs. Interpret radiographs with contrast methods of examination (excretory urography with its modifications, retrograde ureteropyelography, renal arteriography, various modifications of cystography, urethrography).
- To evaluate the separate kidney function and the nature of the pathological process based on the results of radioisotope and ultrasound research methods,
 - to analyze the results of special research methods in the diagnosis of urological diseases:
 - laboratory tests of blood and urine
 - radioimmune blood tests
 - x-ray diagnostic methods
 - endoscopic research methods
 - ultrasound research methods
 - magnetic resonance imaging
 - radioisotope diagnostic methods
 - methods of functional diagnostics
 - based on the obtained physical and instrumental diagnostic methods, determine the stage of the disease.
 - make a plan of medical and surgical treatment based on the results of the diagnosis.

Own:

- Methods of collecting information about urological diseases
 - Proper maintenance of medical records;
 - Assessments of the state of public health;
 - Methods of general clinical examination, interpretation of laboratory and instrumental diagnostic methods, algorithm of clinical diagnosis, preliminary diagnosis with subsequent referral of the patient to the appropriate specialist doctor.
- Consolidating indicators that characterize the degree of development of the healthcare economy, the methodology for calculating medical statistics indicators;
- The main medical diagnostic and therapeutic measures to provide medical care for urgent and life-threatening conditions.

- Knowledge of epidemiological and statistical data on urological diseases.
 - Knowledge about the clinical and laboratory manifestations of urological diseases
 - Interpretation of the results of instrumental diagnostic methods
- urological diseases that allow you to make a correct diagnosis at an early stage of the disease.
- Make a surgical treatment plan based on the results of instrumental diagnostics
 - Have knowledge about resuscitation measures in patients with urological diseases in the early postoperative period and possible complications.
 - Knowledge about the dispensary observation of urological patients, which allows to identify signs of a relapse of the disease.

4. The scope of the discipline and types of academic work

The total labor intensity of the discipline is 2 credits.

Type of educational work	Total hours	Semesters			
		12			
Classroom classes (total)	48	48			
Including	-	-		-	-
Lectures					
Practical exercises (PE)	48	48			
Seminars (S)					
Laboratory work (LW)					
Independent work (total)	24	24			
Total labor intensity hours	72	72			
units	2	2			

5. Content of the discipline

5.1. Content of the discipline sections

№ п/п	Name of the discipline section	Content of the section
1.	Introduction to Endocrinology	The history of the development of endoscopic urology, its current state and prospects. Organization of endosurgical surgery. Transurethral resection of the prostate (TUR) operating room
2.	Endodiagnostics and treatment of diseases of the urethra and bladder	Urethroscopy. Internal urethrotomy. Cystoscopy. Biopsy of the bladder mucosa. Catheterization of the ureter and pelvis. Bladder TOUR and intravesical electrocoagulation. Cystolithotripsy.
3.	Endodiagnostics and treatment of ureteral diseases	Ureteropyeloscopy. Reduction of ureteral stones (lithoextraction). Contact ureterolithotripsy. Dissection of the ureteral mouth. Internal stenting. Electrosection of the ureterocele.
4.	Endodiagnostics and treatment of kidney diseases	Percutaneous puncture nephrostomy - NPNS. Puncture of kidney cysts. Percutaneous endonephroureterolithotomy

		(nephrolitholapaxy).
5.	Endodiagnostics and treatment of diseases of the prostate gland	Transurethral resection of the prostate (TUR) Endoscopic electrovaporization of the prostate. TOUR - vaporization of the prostate. Endoscopic laser surgery of the prostate gland.
6.	Laparoscopic methods of treatment of urological diseases	Equipment and tools for laparoscopic operations. The main stages of laparoscopic surgery in urology Laparoscopic operations on the organs of the retroperitoneal space. Laparoscopic operations on the pelvic organs.

5.2. Sections of disciplines and types of classes

№ п/п	Name of the discipline section	Lect.	Pract.	Lab.	Seminars	CPC	Hours, total
1.	Introduction to Endocrinology		7			4	11
2.	Endodiagnostics and treatment of diseases of the urethra and bladder		6			4	10
3.	Endodiagnostics and treatment of ureteral diseases		7			4	11
4.	Endodiagnostics and treatment of kidney diseases		6			3	10
5.	Endodiagnostics and treatment of diseases of the prostate gland		7			3	10
6.	Laparoscopic methods of treatment of urological diseases		8			3	10
	TOTAL:		48			24	72

6. Laboratory workshop (if available)

Not foreseen

5.3 Practical lessons (seminars) (if any)

№ п/п	№ the discipline section	Topics of practical classes (seminars)	Labor intensity (hours)
1.	1.	The history of the development of endoscopic urology, its current state and prospects. Organization of endosurgical surgery. Transurethral resection of the prostate (TRP) operating.	7
2.	2.	Urethroscopy. Internal urethrotomy. Cystoscopy. Biopsy of the bladder mucosa. Catheterization of the ureter and pelvis. Bladder TRP and intravesical lectrocoagulation. Cystolithotripsy.	6
3.	3.	Ureteropyeloscopy. Reduction of ureteral stones (lithoextraction). Contact	7

		ureterolithotripsy. Dissection of the ureteral mouth. Internal stenting. Electrosection of the ureterocele.	
4.	4.	Percutaneous puncture nephrostomy. Puncture of kidney cysts. Percutaneous endonephroureterolithotomy (nephrolitholapaxy).	6
5.	5.	Transurethral resection of the prostate (TRP) Endoscopic electrovaporization of the prostate. TOUR - vaporization of the prostate. Endoscopic laser surgery of the prostate gland.	7
6.	6.	Equipment and tools for laparoscopic operations. The main stages of laparoscopic surgery in urology Laparoscopic operations on the organs of the retroperitoneal space. Laparoscopic operations on the pelvic organs.	8

8. Material and technical support of the discipline:

Classrooms of the Department of Urology for 25 and 50 seats, a lecture hall for 300 seats in the Herzen Moscow State Medical Research Institute.

Topometric, radiation installations, wards for drug therapy.

Classrooms of the Department of Urology for 25 and 50 seats., a lecture hall for 300 seats in the Herzen Moscow State Medical Research Institute.

Each classroom has computers, laptops and projectors.

9. Information support of the discipline

a) software

Presentations of lectures and laboratory classes in all sections of the discipline Test tasks for training and knowledge control:

b) resources of the information and telecommunications network "Internet":

1. EBS of RUDN and third-party EBS, to which students of the University have access on the basis of concluded contracts:

- Electronic library system of the RUDN-EBS RUDN <http://lib.rudn.ru/MegaPro/Web>
- EBS "University Library Online" <http://www.biblioclub.ru>
- EBS Yurait <http://www.biblio-online.ru>
- EBS "student consultant" www.studentlibrary.ru

2. Databases and search engines:

- electronic fund of legal and regulatory and technical documentation <http://docs.cntd.ru/>
- Search Engine Yandex <http://www.yandex.ru/>
- Search Engine Google <http://www.google.ru/>
- SCOPUS abstract database <http://www.elsevierscience.ru/products/scopus/>
- WHO Documentation Center <http://www.whodc.mednet.ru>

Telecommunications educational and information system of the Peoples ' Friendship University of Russia (TUIS <http://esystem.pfur.ru/>)

10. Educational and methodological support of the discipline:

a) basic literature

1. Endourology. Methodical manual. / Edited By Kaprin A.D. Kostin A. A., Vinogradov I. V. 2018.

2. Urology. National leadership. / Edited by N. A. Lopatkin. - M.: GEOTAR-Media, 2013. 104.

3. Anomalies of the genitourinary system. / Ed. by Daryalova S. L., M., 2008.

4. Urolithiasis. A guide to practical classes in oncology. Edited by Gantsev Sh. Kh., Moscow 2007.

b) additional literature

1. Injuries of the genitourinary system. Selected lectures on clinical oncology. /Ed. Chissova V. I., Daryalova S. L., M., 2008.
2. Clinical recommendations. Urology. - M.: GEOTAR-Media, 2007. - 388 p.
3. Bely, L. E. Emergency urology. Guide for doctors. - Moscow: Medical Information Agency, 2011. - 480 p.

11. Methodological guidelines for students on the development of the discipline "Endoscopic urology".

Students are required to attend classes, complete teacher's tasks, get acquainted with the recommended literature, etc. When certifying a student, the quality of work in the classroom, the level of preparation for independent activity in the chosen field, the quality of the teacher's tasks, the ability to independently study educational material are evaluated.

During practical classes in the classrooms, the analysis of relevant topics is carried out using multimedia equipment (computer, projector).

Independent work during extracurricular hours can take place both in the classrooms of the department and in the computer class, where students can study material on presentations prepared by teachers of the department, as well as on computer tests.

Extracurricular independent work includes: the study of material from a textbook, textbooks on paper and electronic media; preparation of an abstract message on a selected topic; preparation for the implementation of control works and test tasks.

Requirements for the abstract: relevance of the topic, compliance of the content with the topic, depth of study of the material, correctness and completeness of the use of sources, compliance of the abstract design with standards.

12. The Fund of evaluation funds for conducting intermediate certification of students in the discipline "Endoscopic urology".

Materials for assessing the level of mastering the educational material of the discipline "Endoscopic urology", including a list of competencies indicating the stages of their formation, a description of indicators and criteria for evaluating competencies at various stages of their formation, a description of assessment scales, standard control tasks or other materials necessary for assessing knowledge, skills, skills and (or) experience of activity that characterize the stages of competence formation in the process of mastering the educational program, methodological materials defining the procedures for evaluating knowledge, skills, skills and (or) experience of activity that characterize the stages of competence formation have been developed in full and are available to students on the discipline page in the TUIS RUDN.

The program is compiled in accordance with the requirements of the FSES HE.

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