

Urology

Syllabus

Department **Surgical diseases**

Curriculum s310501-ЛечДело-21-1.pli.xml
Specialty 31.05.01 General Medicine

Qualification **General Practitioner**

Form of education **Full-time**

Total (in credits) **2**

Total academic hours including: 72 Control:
7th term

Classes 64

Self-study 8

Control hours

Course outline in terms

Academic year (Term)	4 (4.7)				Total	
	Cur	Syl			Cur	Syl
Weeks	19					
Types of classes	Cur	Syl			Cur	Syl
Lectures	16	16			16	16
Practical	48	48			48	48
Self-study	8	8			8	8
Control hours	-	-			-	-
Total	72	72			72	72

The Syllabus is compiled by:

PhD in Medical Sciences (Surgery), Associate Professor, Zorkin A. A. _____

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, “16” June 2022, Record No.6

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 in 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, Paediatric 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 in electronic form

Knowledge:

Abilities:

Skills:

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

Knowledge:

Abilities:

Skills:

PC-5.2: Will treat 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)

Knowledge:

Abilities:

Skills:

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

Knowledge:

Abilities:

Skills:

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

Knowledge:

Abilities:

Skills:

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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

Knowledge:

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Abilities:

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Skills:

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PC-3.3: Conducts early and differential diagnosis of diseases

Knowledge:

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Abilities:

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Skills:

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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)

Knowledge:
Abilities:
Skills:
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
Knowledge:
Abilities:
Skills:
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
Knowledge:
Abilities:
Skills:

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 in 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 in electronic form
3.2	be able to:
	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 in electronic form
3.3	have skills of:
	Methods of early diagnosis and differential diagnosis of urological diseases, urgent conditions in urology and complications, incl. in pregnant women and elderly and old people.
	Methods of physical, laboratory and instrumental examination of urological patients, urgent conditions in urology and complications, incl. in pregnant women and elderly and old people.
	The method of making a preliminary and clinical diagnosis in accordance with the International Statistical Classification of Diseases and Health Problems X - XI revisions and current clinical classifications.

	Organization of routing and management of urological patients on the basis of current legislation (standards, procedures for the provision of medical care, Clinical guidelines).
	Methods of drug and surgical treatment, therapeutic nutrition, medical devices and methods of non-drug treatment, palliative and personalized medical care for 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).
	Keeping medical records, including in electronic form.

4. STRUCTURE AND CONTENTS OF THE COURSE (MODULE)

Class Code	Topic /class type/	Term/Ac. year	Academic hours	Competences	Literature	Inter activ	Notes
	1. Urology						
1.1	Semiotics and symptomatology of urological diseases. Instrumental methods of examination /Lecture/	7	1	PC-5 PC-6	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Conspectus
1.2	X-ray, radioisotope, ultrasound examination methods, computer and magnetic resonance imaging /Lecture/	7	1	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Conspectus
1.3	Semiotics and symptomatology of urological diseases. Instrumental methods of examination /Practical classes/	7	2	PC-5 PC-6	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Oral quiz, case-study, test, practical skill
1.4	X-ray, radioisotope, ultrasound examination methods, computer and magnetic resonance imaging /Practical classes/	7	2	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Oral quiz, case-study, test, practical skill
1.5	Nephrolithiasis /Lecture/	7	2	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Conspectus
1.6	Nephrolithiasis /Practical classes/	7	8	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5	1	Oral quiz, case-study, test, practical skill
1.7	Nephrolithiasis / Self-study /	7	2	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Essay
1.8	Tumor of the kidney and bladder. Benign hyperplasia and prostate cancer /Lecture/	7	2	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Conspectus
1.9	Tumor of the kidney and bladder. Benign hyperplasia and prostate cancer /Practical classes/	7	8	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Oral quiz, case-study, test, practical skill
1.10	Tumor of the kidney and bladder. Benign hyperplasia and prostate cancer / Self-study /	7	1	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Essay
1.11	Hydronephrosis and abnormalities of the genitourinary system /Lecture/	7	2	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Conspectus
1.12	Hydronephrosis and abnormalities of the genitourinary system /Practical classes/	7	4	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Oral quiz, case-study, test, practical skill

1.13	Tuberculosis of the genitourinary system. Acute and chronic renal failure / Lecture /	7	2	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Conspectus
1.14	Tuberculosis of the genitourinary system. Acute and chronic renal failure /Practical classes/	7	4	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Oral quiz, case-study, test, practical skill
1.15	Tuberculosis of the genitourinary system. Acute and chronic renal failure / Self-study /	7	1	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Essay
1.16	Pyelonephritis (acute and chronic) and nephrogenic hypertension /Lecture/	7	2	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Conspectus
1.17	Pyelonephritis (acute and chronic) and nephrogenic hypertension /Practical classes/	7	8	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5	1	Oral quiz, case-study, test, practical skill
1.18	Pyelonephritis (acute and chronic) and nephrogenic hypertension / Self-study /	7	2	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Essay
1.19	Emergency urology (renal colic, bleeding, acute urinary retention, anuria) Injuries of the genitourinary system /Lecture/	7	4	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Conspectus
1.20	Emergency urology (renal colic, bleeding, acute urinary retention, anuria) Injuries of the genitourinary system /Practical classes/	7	8	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5	1	Oral quiz, case-study, test, practical skill
1.21	Emergency urology (renal colic, bleeding, acute urinary retention, anuria) Injuries of the genitourinary system /Self-study/	7	2	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Essay
1.22	Final lesson /Practical classes/	7	4	GPC-8 PC- 5 PC-6 PC- 8 PC-10 PC -11	L1.1, L1.2, L2.1, L2.2, E1, E2, E3, E4, E5		Oral quiz, case-study, test, practical skill

5. FUND OF ASSESSMENT TOOLS			
5.1. Tests and tasks			
Supplement 1			
5.2. Topics for written papers			
Supplement 1			
5.3. FUND OF ASSESSMENT TOOLS			
Supplement 1			
5.4. List of assessment tools			
Sample tasks, essays, tests, case problems			
6. COURSE (MODULE) RESOURCES			
6.1. Recommended Literature			
6.1.1. Core			
	Authors	Title	Publish., year
			Quantity

L1.1	M.A. Lagoon, B.S. Kharitonov, edited by professor S. V.	The Course of Faculty (Analytical) Surgery in Pictures, Tables and Schemes [Электронный ресурс]	M.: GEOTAR-Media, 2017.	Режим доступа: https://www.studentlibrary.ru/book/ISBN9785970439272.html
L1.2	A. V. Kruchkova, Yu. V. Kondusova, I. A. Poletayeva and others; edited by A.	Care for Surgical Patients [Электронный ресурс]	M.: GEOTAR-Media, 2020.	Режим доступа: https://www.studentlibrary.ru/book/ISBN9785970456644.html

6.1.2. Supplementary

	Authors	Title	Publish., year	Quantity
L2.1	Gostishchev V.K.	General surgery [Электронный ресурс] / The manual. - - 220 p.	M.: GEOTAR-Media, 2020.	Режим доступа: https://www.studentlibrary.ru/book/ISBN9785970454398.html
L2.2	Merzlikin N.V.	The Medical History of a Surgical Patient	M.: GEOTAR-Media, 2018.	Режим доступа: https://www.studentlibrary.ru/book/ISBN9785970444658.html

6.2. Internet resources

E1	FreeMedicalJournals
E2	Blackwell Synergy
E3	MedLine.
E4	New England Journal of Medicine.
E5	PubMed Central (PMC).

6.3.1 Software

6.3.1.1	Operational system Microsoft, applied programs pack Microsoft Office
6.3.1.2	Internet access (Wi-Fi)

6.3.2 Information Referral systems

6.3.2.1	E-data bases: РГБ, Orbicon, Medline.
6.3.2.2	Student Consultant http://www.studmedlib.ru

8. Course manuals

Supplement 2

ASSESSMENT TOOLS

Syllabus

UROLOGY

Qualification

Specialist

Specialty

31.05.01 General Medicine

Form of education
Designer Department

Full-time
Surgical diseases

Graduate Department

Internal Diseases

Sample tasks and tests

Stage I: Formative assessment

1.1 Sample of oral quiz for formative assessment

Topic 1. Semiotics and symptomatology of urological diseases. Instrumental methods of examination.

1. General principles of the diagnosis in urological pathology.
2. Typical clinical manifestations of urological diseases.
3. Current methods of instrumental diagnostics in urological pathology.

Topic 2. X-ray, radioisotope, ultrasound examination methods, computer and magnetic resonance imaging.

1. Urography. Types, indications.
2. Renal scintigraphy. Indications.
3. Ultrasound examination in renal pathology, results interpretation.
4. Computerized axial tomography and MRI scan in urological pathology. Indications and interpretation of results.

Topic 3. Nephrolithiasis.

1. Nephrolithiasis, pathogenesis, types of calculus.
2. Classification of nephrolithiasis.
3. Current methods of diagnosis of nephrolithiasis. Indications.
4. Clinical manifestations of various forms of nephrolithiasis.
5. Tactics for uncomplicated nephrolithiasis treatment.
6. Current methods of nephrolithiasis treatment. Types of operations.

Topic 4. Tumor of the kidney and bladder. Benign prostatic hyperplasia and prostate cancer.

1. Kidney tumor. Etiology, pathogenesis, classification. Current principles of diagnosis and treatment of kidney tumors. Types of operations.
2. A tumor of the bladder. Etiology, pathogenesis, classification. Current principles of diagnosis and treatment of bladder tumors. Types of operations. The role of non-surgical treatments.
3. BPH. Etiology, pathogenesis, classification. Clinical manifestations, modern principles of diagnosis and treatment of BPH. Types of operations.
4. Prostate cancer. Etiology, pathogenesis, classification. Clinical features, modern methods of diagnosis and treatment. Types of operations. Prostate cancer screening.

Topic 5. Hydronephrosis and abnormalities of the genitourinary system.

1. Hydronephrosis. Etiology, pathogenesis, classification. Clinical features, diagnosis, treatment. Types of operations.
2. Anomalies in the development of the genitourinary system. Etiology, pathogenesis, classification. Clinical features, diagnosis, treatment. Indications for surgical treatment. Types of operations.

Topic 6. Pyelonephritis (acute and chronic) and nephrogenic hypertension.

1. Acute pyelonephritis. Etiology, pathogenesis, classification, clinical features, current methods of diagnosis and treatment. Indications for surgical treatment. Types of operations.
2. Principles of the antibacterial therapy of acute pyelonephritis.
3. Chronic pyelonephritis. Etiology, pathogenesis, classification, clinical features, current methods of diagnosis and treatment. Indications for surgical treatment. Types of operations.
4. Nephrogenic hypertension. Etiology, pathogenesis, classification, clinical features, current methods of diagnosis and treatment. Indications for surgical treatment. Types of operations.

Topic 7. Tuberculosis of the genitourinary system. Acute and chronic renal failure.

1. Renal tuberculosis. Etiology, pathogenesis, classification, clinical features, current methods of diagnosis and treatment. Indications for surgical treatment. Types of operations.
2. Acute renal failure. Etiology, pathogenesis, classification, clinical features, current methods of diagnosis and treatment. Indications for replacement therapy. Types of the dialysis.
3. Chronic renal failure. Etiology, pathogenesis, classification, clinical features, current methods of diagnosis and treatment. Indications for replacement therapy. Types of the dialysis.

Topic 8. Emergency urology (renal colic, bleeding, acute urinary retention, anuria). Injuries to the genitourinary system.

1. Renal colic. Etiology, pathogenesis, classification, clinic, modern methods of diagnosis and treatment. Indications for surgical treatment. Types of operations.
2. Algorithm for diagnosis and relief of renal colic.
3. Hematuria. Etiology, pathogenesis, classification, clinical features, current methods of diagnosis and treatment. Differential diagnosis. Indications for surgical treatment. Types of operations.
4. Acute urinary retention. Etiology, pathogenesis, classification, clinical features, current methods of diagnosis and treatment. Differential diagnosis. Indications for surgical treatment. Types of operations.
5. Techniques of puncture and traditional epicycstostomy.
6. Differential diagnosis of anuria. The algorithm of diagnosis and treatment

Topic 9. Control.

1.2 Sample of essay topics for formative assessment

Topic 8. Emergency urology (renal colic, bleeding, acute urinary retention, anuria). Injuries to the genitourinary system.

1. Renal colic. Modern methods of diagnosis and treatment. Indications for surgical treatment. Types of operations.
2. Algorithm for diagnosis and relief of renal colic.
3. Haematuria. Differential diagnosis and treatment tactic.
4. Acute urinary retention. Current methods of diagnosis and treatment. Types of operations.
5. Techniques of puncture and traditional epicycstostomy.
6. Differential diagnosis of anuria. The algorithm of diagnosis and treatment.

1.3 Sample of case-study for formative assessment

1. A 56-year-old patient was admitted to the urology department with complaints of blood in the urine, worm-shaped clots, general weakness, fever, severe pain in the lower back on the left. The pains disappeared after the passage of a necrotic piece of renal tissue with urine, which, on examination, resembles a renal papilla. Fever and hematuria persist. Diagnosis. Necessary research. Tactics.

Answer. There is a disintegrating tumor of the left kidney, gross hematuria. Shown CT, retrograde pyelography, kidney scintigraphy. Nephrectomy with lymph node dissection.

2. A patient receiving programmed hemodialysis cannot be transported from the surgical department to the dialysis department. What temporary method of detoxication can be used for health reasons.

Answer. The procedure for peritoneal dialysis is shown.

3. A 75-year-old patient was admitted to the urology department with complaints of chills, dry mouth, thirst, pain in the right lumbar region. The condition is serious. Body temperature 38.7 C, tongue dry. An enlarged and painful right kidney is palpated. Positive Pasternatsky symptom on the right. Blood sugar 12.7 mmol / l. Leukocytosis - 10000, neutrophils - 12%. In the analysis of urine, leukocytes are up to 10 in the field of view. According to the data of excretory urography, there is no evidence for urolithiasis, the function of the right kidney is reduced, the left one is satisfactory. Retrograde pyelogram shows amputation of the lower calyx of the right kidney, the ureter is passable throughout. By ultrasound - a purulent-necrotic node along the outer contour of the lower pole of the kidney. Diagnosis. Treatment.

Answer. Acute abscess of the lower pole of the right kidney. An urgent operation is indicated - drainage of the renal abscess by an open method or under ultrasound control by puncture. Infusion, detoxification, massive antibacterial therapy.

1.4 Sample tests (with keys) for formative assessment

1. FOR KIDNEY TUMOR HEMATURIA IS

- A. Initial
- B. Terminal
- C. Total
- D. Microhaematary

2. X-RAY-CONTRAST CONCREMENTS ARE EVERYTHING EXCEPT

- A. oxalates
- B. phosphates
- C. mixed
- D. urates
- E. urates and oxalates

3. HEMATURIA IS NOT CHARACTERISTIC FOR

- A. Urolithiasis
- B. Tuberculosis of the urinary tract
- C. Testicular tumors
- D. Tumors of the urinary tract
- E. Goodpascher Syndrome

4. IN ACUTE URETER TRAUMA URETEROGRAPHY

- A. Need immediately
- B. Non needed

5. FOR KIDNEY CARBUNCLE WITH SIGNS OF UROGENIC SEPSIS, IT IS NECESSARY

- A. Prescribe intravenous and endolymphatic antibiotics, detoxification
- *B. Perform an urgent nephrectomy
- B. Perform urgent pyelolithotomy, carbuncle excision, nephrostomy
- Г. Make ureteral catheterization, conservative therapy
- Д. Perform a puncture nephrostomy

6. IN CHRONIC PYELONEPHRITIS, ANTIBACTERIAL THERAPY IS CONDUCTED WITH ACCOUNT

- A. Age
- B. Gender
- B. Physician's personal preference
- *Г. Results of microbiological examination of urine

7. Kidney tuberculosis affects more often

- *A. Ren
- B. Ureter
- B. Bladder

Г. Urethra

Д. Penis

1.5 Sample practical skill for formative assessment

1. Collect complaints, anamnesis, physical examination of a patient with urological pathology, interpret the results.
2. Justify the preliminary diagnosis based on the examination of a specific patient.
3. Formulate a plan for additional (paraclinical) examinations in a specific patient.
4. Interpret the available results of additional (paraclinical) examinations in a particular patient.
5. Suggest and justify treatment tactics for a particular patient.
6. Write a list of prescriptions for a particular patient and justify the indications for the use of the medications

II Stage: midterm assessment (credits with an assessment)

Midterm assessment is carried out in the form of credits with an assessment. Tasks for the exam include one theoretical points and one problem.

Tasks for competence assessment «Knowledge»	Task type
<p>List of theoretical points</p> <ol style="list-style-type: none">1. Urolithiasis. Etiology, pathogenesis, the clinical picture. Diagnostic methods. Treatment, types of operations. Emergency care for renal colic2. Pathology of the prostate. Classification. Etiology, pathogenesis, the clinical picture. Methods of screening for cancer of the pancreas. Methods of diagnosis and treatment, types of operations. Emergency care for acute urinary retention.3. Kidney cancer. Methods of diagnosis and treatment, types of operations. Emergency care for haematuria.4. A tumor of the bladder. Etiology, pathogenesis, classification. Current principles of diagnosis and treatment of bladder tumors. Types of operations. The role of non-surgical treatments. Emergency care for haematuria.5. Acute renal failure. Etiology, pathogenesis, principles of diagnosis, and treatment. Emergency care for acute urinary failure.6. Chronic renal failure. Etiology, pathogenesis, principles of diagnosis, and treatment7. Acute pyelonephritis. Etiology, pathogenesis, the clinical picture. Diagnostic methods. Treatment, types of operations8. Chronic pyelonephritis. Etiology, pathogenesis, the clinical picture. Diagnostic methods. Treatment, types of operations9. Nephrogenic hypertension. Etiology, pathogenesis, classification, clinical features, current methods of diagnosis and treatment. Indications for surgical treatment. Types of operations.10. Renal tuberculosis. Etiology, pathogenesis, classification, clinical features, current methods of diagnosis and treatment. Indications for surgical treatment. Types of operations.11. Kidney trauma. Etiology, pathogenesis, classification, clinical features, current methods of diagnosis and treatment. Indications for surgical treatment. Types of operations.12. Bladder trauma. Etiology, pathogenesis, classification, clinical features, current methods of diagnosis and treatment. Indications for surgical treatment. Types of operations.	-theoretical
<p>Tasks for competence assessment «Abilities»</p> <p>Sample Case – study, practical skills</p> <p>A 40-year-old man was kicked in the stomach. Was admitted to the clinic 2 hours after the injury. Complains of pain in the lower abdomen, difficulty urinating drop by drop. Bloody urine. The condition is satisfactory. In the suprapubic region, soreness, muscle tension is determined, a dull sound is determined percussion. Positive symptom of Shchetkin-Blumberg. Presumptive diagnosis. What research methods are needed? Treatment.</p> <ol style="list-style-type: none">1. Answer. Extraperitoneal rupture of the bladder is possible. Cystoscopy or cystography is indicated. When the diagnosis is confirmed, an emergency operation is indicated - suturing the rupture of the bladder with a 2-row suture with unloading with an epicystostomy or guiding on an indwelling urinary catheter. Uroantiseptics, antibacterial therapy.	-practical

<p>2. 1. Collect complaints, anamnesis, physical examination of a patient with or urological pathology, interpret the results.</p> <p>2. Write a list of prescriptions for a particular patient and justify the indications for the use of the medications</p>	
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METHODOLOGICAL GUIDELINES FOR LEARNING OUTCOMES ASSESSMENT

Stage: Formative assessment

Formative assessment is a regular checking of student academic progress during the academic term. It is performed in various oral and written forms (quizzes, essays, checking of home assignments, compilation of cases, self-study, colloquiums, and testing). During formative assessment, the teacher monitors the level of student's academic progress according to the curriculum identifying lack of knowledge, or misunderstanding.

The tasks of formative assessment are aligned with the Curriculum and Syllabus.

1. Guidelines for assessing the oral quiz:

In assessing the teacher takes into account:

- knowledge and understanding of the subject matter;
- activity during the class;
- consistency of presentation;
- argumentation of the answer, the level of independent thinking;
- ability to link theoretical and practical principles with future professional activity.

Assessment criteria:

The results are assessed in a four-grading scale: “excellent”, “good”, “satisfactory”, “unsatisfactory”.

Type of the task	Assessed competences	Assessment criteria	Grade
Oral quiz	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 -5.4 PC -8.2	<p>The student demonstrates a comprehensive, systematic and in-depth knowledge of the academic material; has learned the required and additional resources.</p> <p>The student demonstrates a consistent and thorough understanding of the required knowledge, concepts, skills of the material learned, and their significance for future profession.</p>	Excellent
	PC-1.1 PC - 1.2 PC -3.1 PC -3.2 PC - 3.3	<p>The student demonstrates a comprehensive knowledge of the academic material; has learned the required and additional resources.</p>	Good

	PC -3.4 PC -5.1 PC - 5.2 PC -5.4 PC -8.2	The student demonstrates a consistent understanding of the required knowledge, concepts, skills of the material learned, but makes minor errors.	
	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 -5.4 PC -8.2	<p>The student demonstrates basic knowledge necessary for further study; has learned basic recommended literature.</p> <p>The student operates with inaccurate formulating, has difficulties in the independent answers, makes significant mistakes but is able to correct them under the guidance of a teacher.</p>	Satisfactory
	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 -5.4 PC -8.2	The student does not know the obligatory minimum or demonstrates gaps in knowledge of the academic material, makes major mistakes or gives completely wrong answers.	Unsatisfactory

2. Guidelines for case-study assessment:

Assessment criteria:

The results are assessed in a four-grading scale: “excellent”, “good”, “satisfactory”, “unsatisfactory”.

Typ e of the task	Assessed competences	Assessment criteria	Grade
Case - study	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 -5.4	The student correctly and solves the case-study task, demonstrating deep knowledge. There are no errors in logical reasoning and solution, the problem is solved in a rational way. The right answer is obtained, ways are clearly described.	Excellent
		The student correctly solves the case-study task, demonstrating	Good

	PC -8.2	deep knowledge. There are minor errors in logical reasoning and solution, the problem is solved in a rational way. The right answer is obtained, ways are clearly described.	Satisfactory
		The student correctly solves the case-study task, demonstrating basic knowledge. There are significant errors in logical reasoning and solution. The student demonstrates difficulties, but still is able to solve a case-study task.	
	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 -5.4 PC -8.2	The student incorrectly solves the case-study task, makes significant mistakes. The student is not able to solve a case-study.	Unsatisfactory

3. Guidelines for test assessment.

Assessment criteria:

The results are assessed in a four-grading scale: “excellent”, “good”, “satisfactory”, “unsatisfactory”.

Type of the task	Assessed competences	Assessment criteria	Grade
Test	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 -5.4 PC -8.2	80 – 100%	Excellent
		66 – 80%	Good
		46 – 65%	Satisfactory
		Less Than 46%	Unsatisfactory

4. Guidelines for the assessment of practical skills:

Assessment of practical skills based on simulation or participation of third parties may include a demonstration of manipulation, response to the questions of the task;

- assessment of practical skills at the bedside may include a demonstration of detection and / or interpretation of signs, symptoms, methods of examination and treatment;

-the task may include a brief introduction, questions, and list of practical skills for demonstration (according to Curriculum).

In assessing the teacher takes into account:

- knowledge and understanding of the subject matter;
- ability to apply theoretical knowledge into practice;
- the level of formed practical skills;
- reasoning and response style;
- rationale for data selection, additional tests, differential diagnosis and/or choice of treatment, level of clinical thinking.

Assessment criteria:

The results are assessed in a four-grading scale: “excellent”, “good”, “satisfactory”, “unsatisfactory”.

Type of the task	Assessed competences	Assessment criteria	Grade
Practical skills	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 -5.4 PC -8.2	The student correctly demonstrates practical skills on the model with a deep knowledge of the material. There are no mistakes in the demonstration and the used technique. The indications and conditions used in this method are clearly described.	Excellent
		The student demonstrates practical skills on the model with slight inaccuracies. There are insignificant mistakes in the demonstration and the used technique. The indications and conditions used in this method are clearly described.	Good

		The student demonstrates practical skills on the model with inaccuracies. There are significant mistakes in the demonstration and the used technique. The indications and conditions used in this method are clearly described.	Satisfactory
	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 -5.4 PC -8.2	The student demonstrates practical skills on the model with significant mistakes. The indications and conditions used in this method are not described.	Unsatisfactory

5. Essay requirements:

- 1) Volume: 1500-300 words,
- 2) Contents structure:
 - Introduction
 - prove the relevance of the chosen topic
 - point out the purpose of the essay
 - give a summary of the main points
 - Body
 - use information obtained from different sources during the research
 - show inaccuracy of the opposite points of view
 - Conclusion
 - List of references

The essay assumes usage of several specialized sources (at least 8-10 publications, monographs, the reference media, manuals). Preference is given to the publications in specialized medical journal and monographs including foreign databases.

Assessment criteria:

The results are assessed in a four-grading scale: “excellent”, “good”, “satisfactory”, “unsatisfactory”.

Type of the task	Assessed competences	Assessment criteria	Grade
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Essay	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 -5.4 PC -8.2	The requirements are fulfilled: <ul style="list-style-type: none"> - the problem is formulated and its relevance is proved; - the various approaches to problem are presented; - conclusions are formulated; - the subject is thoroughly studied; - volume is observed; - design requirements are observed; - correct answers to additional questions are given. 	Excellent
	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 -5.4 PC -8.2	The main are fulfilled with some mistakes: <ul style="list-style-type: none"> - inaccuracies in material statement; - no logical sequence in judgments; - volume is not observed; - errors in design requirements; - incomplete answers are given to additional questions in the process of defense. 	Good
		There are significant deviations from requirements: <ul style="list-style-type: none"> - topic is only partially explored; - mistakes in contents of the paper; - mistakes in answers to additional questions; - no conclusion is given at the 	Satisfactory

		process of defense.	
	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 -5.4 PC -8.2	The essay is not prepared at all. The subject of the essay is not explored, significant misunderstanding of a topic.	Unsatisfactory

Stage: midterm assessment (graded credit)

Methodological guidelines for summative assessment (graded credit)

Examination is held in the oral form and includes several stages:

- oral quiz (the card includes one question);
- case-study task;
- demonstration of practical skills with the use of the simulator.

Requirements for the student:

- 1) regularly attend classes; the absence from classes is not allowed without good reason;
- 2) in case of absence from classes the student has to work out passed classes;
- 3) the student has to hand over written papers on time;
- 4) the student has successfully passed all colloquiums provided by the plan;
- 5) in case the student has been negatively assessed on the colloquium, he/she should try to pass it again;
- 6) during the test week the student has to hand over all the tasks (clinical case).

The students are allowed to take examinations in case of all the tests passed and no academic debts (on the basis of the academic records).

The students are not allowed to take examination:

- with unpassed tests on the discipline;
- with missed classes, debts on the discipline;
- with 5 (five) and more debts for the previous term;
- with one debt for earlier terms for more than a year.

Recommendations for the graded credit assessment:

Type of the task	Assessed competences	Assessment criteria	Grade
Oral quiz	PC-1.1 PC - 1.2 PC -3.1 PC -3.2 PC - 3.3 PC -3.4 PC -5.1 PC - 5.2	The student demonstrates comprehensive, systematic and profound knowledge of the subject, can independently	Excellent

	PC -5.4 PC -8.2	perform the tasks provided by the program; who has a good knowledge of the main literature and familiar with the additional literature recommended by the program; demonstrates creative abilities in understanding, statement and use of material of the studied discipline, faultlessly answers not only questions of the card, but also additional questions within the main program, correctly performs a practical task.	
	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 -5.4 PC -8.2	The student has good knowledge of material of the studied discipline; can successfully perform the tasks provided by the program; has a good knowledge of the main literature recommended by the program; answers all questions of the card, correctly performs a practical task, but makes some mistakes.	Good
	PC-1.1 PC - 1.2 PC -3.1 PC -3.2 PC - 3.3 PC -3.4	The student demonstrates knowledge of material for further study; can cope with the tasks	Satisfactory

	<p>PC -5.1 PC - 5.2 PC -5.4 PC -8.2</p>	<p>provided by the program; familiar with the main recommended literature; makes mistakes when performing examination tasks, but has necessary knowledge for their elimination under the supervision of the teacher.</p>	
	<p>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 -5.4 PC -8.2</p>	<p>The student demonstrates poor knowledge of the material, makes significant mistakes in performance of the tasks provided by the program.</p>	<p>Unsatisfactory</p>
<p>Case - study</p>	<p>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 -5.4 PC -8.2</p>	<p>The student correctly and fully solves the case-study task, demonstrating deep knowledge. There are no errors in logical reasoning and solution, the problem is solved in a rational way. The right answer is obtained, ways are clearly described.</p>	<p>Excellent</p>
	<p>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 -5.4 PC -8.2</p>	<p>The student correctly solves the case-study task, demonstrating deep knowledge. There are minor errors in logical reasoning and solution, the problem is solved in a rational way. The right answer is obtained, ways are clearly described.</p>	<p>Good</p>

	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 -5.4 PC -8.2	The student correctly solves the case-study task, demonstrating basic knowledge. There are significant errors in logical reasoning and solution. The student demonstrates difficulties, but still is able to solve a case-study task.	Satisfactory
	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 -5.4 PC -8.2	The student incorrectly solves the case-study task, makes significant mistakes answering most of the questions of the case-study. The student is not able to solve a case-study.	Unsatisfactory
Practical skills	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 -5.4 PC -8.2	The student correctly demonstrates practical skills on the model with a deep knowledge of the material. There are no mistakes in the demonstration and the used technique. The indications and conditions used in this method are clearly described.	Excellent
	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 -5.4 PC -8.2	The student demonstrates practical skills on the model with slight inaccuracies. There are insignificant mistakes in the demonstration and the used technique. The indications and	Good

		conditions used in this method are clearly described.	
	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 -5.4 PC -8.2	The student demonstrates practical skills on the model with inaccuracies. There are significant mistakes in the demonstration and the used technique. The indications and conditions used in this method are clearly described.	Satisfactory
	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 -5.4 PC -8.2	The student demonstrates practical skills on the model with significant mistakes. The indications and conditions used in this method are not described.	Unsatisfactory

Chart of the examination grade assessment:

Tasks	Assessed competences	Grade	Score
Theoretical point (Oral quiz)	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 -5.4 PC -8.2	Excellent	5
		Good	4
		Satisfactory	3
		Unsatisfactory	2
		Unsatisfactory	2
		Unsatisfactory	2
Practical task (case studies)	PC-1.1 PC - 1.2 PC -3.1 PC -3.2 PC - 3.3	Excellent	5
		Good	4
		Satisfactory	3

	PC -3.4 PC -5.1 PC - 5.2 PC -5.4 PC -8.2	Unsatisfactory	2
Practical task (Practical skills)	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 -5.4 PC -8.2	Excellent	5
		Good	4
		Satisfactory	3
		Unsatisfactory	2
Total	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 -5.4 PC -8.2	Excellent	14-15
		Good	11-13
		Satisfactory	8-10
		Unsatisfactory	0-7

Oral quiz, case-study, test, practical skill