

HORBACHEVSKY TERNOPIL STATE MEDICAL UNIVERSITY
Department of Surgery №1 with urology and miniinvasive surgery
named prof. L.Y. Kovalchuk

“ CONFIRM “
Prorector of educational work

_____ prof. A. G. Shulgay

“ _____ ” _____ 2017

SYLLABUS
Of UROLOGY
for students of medical faculty

Department of Surgery №1 with urology and miniinvasive surgery
named prof. L.Y. Kovalchuk

Fields of study 1201 “Medicine”

Speciality “General Medicine” (7.12010001)

medical Faculty

Course/Year of study 2017-2018

Program has been created by: Associate professor A. Mysak.

Program has been discussed and adopted at the sub-faculty meeting

16.06 2017, minute No 25

Department of Surgery №1 with Urology and miniinvasive surgery

named by prof. L.Y. Kovalchuk

prof. A. Bedenyuk

Ternopil - 2017

1. Explanatory note and Structure of UROLOGY

Index name	Industry knowledge, direction of training, education level	Characteristics of the course
The number of credits - 3	discipline 1201 Medicine	Full-time teaching
	direction of preparation "General Medicine" 7.12010001 Urology 7.110101	
Modules - 1	Specialty: Urology	Year of preparation
Content module - 4		4-th
Individual scientific and research tasks -		semester
The total number of hours - 90		VII - VIII
		Lectures
Weekly hours for full-time: classroom - self-learning -	Educational qualification: expert	10 hours.
		Practical, seminar
		36 год.
		Laboratory
		Independent work
		44 hours.
		Individual task
		Type of control:
		final
		testsmodule control

Note: 1 credit - 30 hours; audience loading - 51,1%, IWS – 48,9%

2. Explanatory note and structure discipline.

To study the clinical symptomatology major urological diseases, treatment of certain pathological conditions in urology (acute urinary retention, renal colic, acute cystitis) and therapeutic tactics in acute renal disease, of the purse, and hematuria and anuria. Teach basic practical skills, palpation of the kidneys, palpation and percussion bladder catheterization and its flexible catheter urohram reading at stones of kidneys and bladder and others.

Organization of educational process is carried out according to the requirements of

the curriculum.

The course is structured in thematic sessions:

1. Clinical evaluation of symptoms in urolohiyi. Instrumentalni methods in urolohiyi. Rentheno- and radioisotope diagnosis. Ultrasound, CT, nuclear magnetic imaging in the diagnosis of urological diseases.
2. Acute pyelonephritis. Pyonephrosis. Paranephritis. Tuberculosis of the kidneys.
3. Urolithiasis. Nephroptosis and hydronephrosis. Nephrogenic hypertension.
4. Traumatic damage the kidneys and ureters. Traumatic injury of the bladder and urethra. Acute diseases of the scrotum.
5. Tumors of the kidneys and ureters. Tumors of the urinary bladder. Tumors of the prostate gland (benign). Prostate cancer.
6. Acute and chronic renal failure. Urgent issue of Urology. Final module control (test)

Educational system systematically encourages students to learn during the school year.

The program is structured into the modules, semantic modules, themes in accordance with the requirements of "Recommendations on the development of educational disciplines" (Order of the Ministry of Public Health of Ukraine, N492 from 12.10.2004).

The program is made in accordance with the followings normative documents:

- by educationally qualifying descriptions and educationally professional programs of preparation of specialists
- by an experimental curriculum, developed on principles of the European credit-transfer system and by the ratified order of Health Care Ministry of Ukraine from 31.01.2005 № 52 "About assertion and introduction of new curriculum of preparation of specialists of educationally qualifying level "Specialist" of qualification "Physician" in higher educational establishments of IV level of accreditation of Ukraine after specialities "Medical affair", "Paediatrics"
- by the order of Health Care Ministry Ukraine № 414 from 23.07.07 «About making alteration in the order of Health Care Ministry of Ukraine from 31.01.2005 152 „About statement and introduction of new curriculum of preparation of specialists of educationally qualifying level „Specialist” of qualification „Physician” in higher educational establishments of IV levels of accreditation of Ukraine after specialities „Medical affair”, „Paediatrics”,
- by recommendations in relation to educational program of educational disciplines development, of Ukraine ratified an order from 24.03.2004 after 152 "About claim of recommendations in relation to educational program of educational disciplines" development with changes and additions, Health Care Ministry of Ukraine from 12.10.2004
- by the order of Health Care Ministry of Ukraine from 31.01.03 № 148 "About measures on realization of positions of Bolonskoy of declaration in the system of higher medical and pharmaceutical education";
- by instruction about the system of evaluation of educational activity of students on condition of the credit-module system of organization of educational process (Medical education in the world and in Ukraine. 2005).

The types of studies according to the curriculum are:

a) lectures; b) practical trainings; c) the independent work of students.

Topics of lectures reveal issues relevant sections of urology.

Practical lessons on the methodology of the organization is clinical, as follows:

- The development of methods of endoscopy of urinary and male reproductive system;
- Research disturbed functions of urinary and male reproductive system;
- Diagnosis on the basis of summarizing data;
- The appointment of adequate treatment relevant disease;
- Solving tests "step- 2" situational problems.

Current educational activity of students is controlled on practical lessons for specific purposes. Apply these diagnostic tools of training students: computer tests, solving situational problems, content curation of patients, laboratory data interpretation and specialized studies characterizing the functional state of urinary and male reproductive system, control of practical skills, and more.

Final control module is carried out to its completion in the control class hours that are reserved for lecture-practical classes

3. PURPOSE OF STUDY OF EDUCATIONAL DISCIPLINE

A purpose of study of urology is a capture of diagnostics, treatment and methods of prophylaxis of diseases of organs of the urinary and masculine sexual system.

Aim of the disciplines

- to interpret a clinical anatomy, physiology and methods of research of organs of the urinary and masculine sexual system;
- to determine the etiologic and pathogenetic factors of diseases of organs of the urinary and masculine sexual system;
- to put the primary diagnosis of the most widespread urology diseases;
- to determine tactic of treatment of the patients with the most widespread diseases of organs of the urinary and masculine sexual system;
- to diagnose and perform the first medical aid for patients with urology pathology;
- to use the basic principles of prophylaxis of urology diseases.

Program has been discussed and adopted at the sub-faculty meeting

16.06 2017, minute No 25

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4. The content of the program, including the thematic plan of lectures, seminars (practical) classes, self-study, a list of practical skills listed in MATRIKULA practical skills;

The discipline program is structured in 6 sessions

The types of studies according to the curriculum are:

- A) lectures;
- B) practical trainings;
- B) independent work of students;
- D) advice.

Lectures cover the basic theoretical material particular or more topics of discipline, revealing the main issues relevant sections of discipline.

Practical exercises include a detailed study of some theoretical propositions of the discipline with the teacher and the formation of ability and skills to practical use by an individual student performance of various tasks and solving situational problems.

Students' individual work involves mastering educational material, such as an independent on particular topics of discipline at the time free from mandatory training sessions, and provides training to all controls. Handout discipline provided a working curriculum for learning students during independent work submitted for final control along with educational material that was worked during the classes.

Consultations (individual or group) conducted to help students understand and explain complex issues for self-understanding, solve complex problems arising in self-processing training material in preparation for practical classes, final classes or before an exam.

When study subjects using appropriate methods.

According to sources of knowledge using teaching methods: verbal - story, explanation, lecture, briefing; visual - demonstration, illustration; practical - practical work solving the problem. The nature of logic used methods of cognition: analytical, synthetic, analytical and synthetic, inductive, deductive. In terms of individual mental activity used methods are problematic, partly retrieval, research.

Plan of educational process

		Total hours\ include						
Name of the module	Name of the Meaningful module	Total Hours / credits	Auditory		Individual original students work	Course	Term	Type of control
			Lecture	Practical lessons				
Urology	1. Methods of research of organs of the urino-genital system. 2. Non-specific and specific inflammatory diseases of organs of the urino-genital system. Urolithiasis. 3. Traumatic damages and neoplasm of organs of urino-genital sexual systems. 4. The first aid at urology diseases. Acute and chronic renal insufficiency.	90/3 credits ECTS	10	36	44	4		Practical lessons marks

Discipline is structured:

Urology.

Meaningful modules:

1. *Methods of research of organs of the urino-genital system.*
2. *Non-specific and specific inflammatory diseases of organs of the urino-genital system. Urolithiasis.*
3. *Traumatic damages and neoplasm of organs of urino-genital sexual systems.*
4. *The first aid at urology diseases. Acute and chronic renal insufficiency.*

Credit's system of organization of educational process systematically induces students to study during a school year.

The types of lessons in according to a curriculum are:

- a) lectures; b) practical works; c) independent work of students.

The themes of lecture expose the problem questions of the urology.

Practical work provides for:

- methods of endoscopic research of organs of the urinary and masculine sexual system;
- research of the functions of organs of the urinary and masculine sexual system;
- establishment of diagnosis is on the basis of generalization of findings;

- setting of adequate scheme of treatment of the disease;
- passing the tests of „Krok- 2”, practical tasks.

Current educational activity of students is controlled on practical works in accordance to aims. Such facilities of diagnostics of level of preparation of students are used: computer tests, answering for practical tasks, curation of thematic patients, interpretations of the laboratory and special researches, which characterize the functional state of organs of the urinary and masculine sexual system, control of practical skills, and others like that.

Final control of mastering of the module of the module is carried out on his completion on a concluding control session.

An estimation of progress of student from discipline is rating and proposed on a multimark scale as a middle arithmetic estimation of mastering the module and has determination by credit system and by a traditional scale, accepted in Ukraine.

5. Program content

Specific goals:

- Interpret clinical anatomy, physiology and methods of urinary and male reproductive system;
- Determine the etiologic and pathogenetic factors of diseases of the urinary and male reproductive system;
- Set a preliminary diagnosis of the most common urological diseases;
- Determine treatment in patients with the most common diseases of the urinary and male reproductive system;
- Diagnose and provide emergency medical care to patients with urological disorders;
- Use the basic principles of prophylaxis of urological diseases.

Objective: To teach students to identify the tactics of patients with the most common urological diseases. Explain the principles of rehabilitation and rehabilitation hvo-ryh with diseases of the urinary system. To conduct differential diagnosis of urological diseases, establish a preliminary diagnosis of the most common urological diseases.

Topic 1. Clinical evaluation of symptoms in urology. Instrumental methods of examination in urology. X-ray and radioisotope diagnosis of urological diseases, nuclear magnetic imaging in the diagnosis of urological diseases.

Analysis and review of complaints of urological patients and the main symptoms of urological diseases. Introduction to basic urological instruments (cystoscope, catheters, buzhamy), to study the structure and purpose of some of them. Holding bladder catheterization, and cysto- chromocystoscopy, introduce the catheterization ureter. Preparing patients for urography, indications and contraindications to the excretory, retrograde urography. Read the review, excretory and retrograde urohramy, diagnose X-ray pozytyv and X-xay negatyv stones and urinary tract diagnose hydroureteronephros.

Topic 2 Acute pyelonephritis. Pyonephrosis and paranephritis. Tuberculosis of the kidneys.

Diagnosis of nonspecific inflammation of the kidneys, determine the principles of treatment of these pathological conditions.

Diagnose, determine the principles of treatment and Pyonephrosis paranephritis to know methods of surgical treatment.

Diagnose and determine the principles of treatment of tuberculosis urinary tract, surgical techniques to know their treatment.

Topic 3 Urolithiasis. Nephroptosis and hydronephrosis. Nephrogenic hypertension.

Symptomatology and diagnosis of kidney stone disease, its complications and indications for conservative and surgical treatment. Typical diagnostic and tactical mistakes and ways to prevent them. To be able to diagnose, determine the principles of treatment of patients with Hydronephrosis and Nephroptosis to know methods of surgical treatment. Nephrogenic diagnose hypertension, learn the principles of treatment.

Topic 4 Traumatic injury kidney and ureter. Traumatic injury of the bladder and urethra. Acute diseases of the scrotum.

Diagnosis and treatment of traumatic injuries pryntsypiy kidney sechovodiv and traumatic injuries of the bladder and urethra.

To be able to diagnose and determine the principles of treatment of patients with severe diseases of the scrotum.

Topic 5 tumors of the kidneys and ureters. Tumors of the urinary bladder.

Dobroyakisna hiperplaziya prostate.

To diagnose kidney and ureter tumors and determine the principles of treatment of patients with this disease. To be able to diagnose, determine the principles of treatment of bladder tumors, know methods of surgical treatment. To study the diagnosis, clinical course dobroyakisnoyi hiperplaziyi prostate able to work out a plan of inspection of patient, to justify and formulate a diagnosis, conduct a differential diagnosis dobroyakisnoyi hiperplaziyi prostate and prostate cancer make treatment plan study the diagnosis, clinical course adenoma and cancer of the prostate gland, able to make a plan examination of the patient, to formulate and justify a diagnosis, conduct a differential diagnosis BPH and prostate cancer make treatment plan for patients with prostate cancer.

Topic 6 Acute renal failure. Urgent Urology. Concluding session. Diagnosis of acute renal failure and determine the principles of treatment of this pathological condition.

Learn to diagnose and provide emergency care for acute urological diseases (acute pyelonephritis, acute paranephritis, acute orchiepididymitis , acute urinary retention, torsion of the spermatic cord, anuria, renal colic, hematuria). Determine the level of assimilation of urological topics and learning methods of diagnosis in urological diseases.

6. Structure and contents of the program

THEMATICAL PLAN OF LECTURES OF UROLOGY

NN	Title of lectures	Number of hours	Lecturer
1.	Non-specific and specific inflammatory diseases of organs of the urino-genital system.	2	Ass.Professor A. Mysak
2.	Tumours of the Kidney and Urinary Bladder.	2	Ass.Professor A. Mysak
3.	Benign Prostatic Hyperplasia and Carcinoma of the Prostate.	2	Ass.Professor A. Mysak
4.	Urinary Stones Disease.	2	Ass.Professor A. Mysak
5.	Injuries to the Genitourinary Tract.	2	Ass.Professor A. Mysak

THEMATICAL PLAN OF UNITS OF UROLOGY

NN	Title of units	Number of hours	Number of credits
Module 1. Urology		36	
1.	<i>Methods of research of organs of the urino-genital system</i>	6	
	<u>Practical lessons 1</u> Clinical Assessment of Urological Symptoms Instrumental Methods of Examination in Urology X-rays and Radioisotope Diagnostics of Urological Diseases, USI, CT.	6	

	<i>Non-specific and specific inflammatory diseases of organs of the urino-genital system. Urolithiasis.</i>	12	
2.	<u>Practical lessons 2</u> Acute Pyelonephritis.Pyonephros and Paranephritis. Tuberculosis of the Kidneys.	6	
	<u>Practical lessons 3</u> Urinary Stones (Urolithiasis). Nephroptosis and Hydronephrosis.Nephrogenie Arterial Hypertension.	6	
3	Traumatic damages and neoplasm of organs of urino-genital sexual systems.	12	
	<u>Practical lessons 4</u> Injuries to the Kidney and Ureter.Injuries to the Bladder and Urethra. Acute Diseases of Scrotum Organs	6	
	<u>Practical lessons 5</u> Tumours of the Kidneys and Ureter.Tumor of the Urinary Bladder. Benign Prostatic Hyperplasia. Cancer of the Prostate	6	
4.	The first aid at urology diseases. Acute and chronic renal insufficiency.	6	
	<u>Practical lessons 6</u> Acute and chronical renal insufficiency.Urgent Urology. Concluding module control	6	

THEMATICAL PLAN OF INDIVIDUAL ORIGINAL STUDENTS WORK OF UROLOGY

NN	Title of INDIVIDUAL ORIGINAL STUDENTS WORK	Number of hours	Type of control
1	Preparation for the practical course	24	Continuous control during the practical lessons
2	Topics for the individual work		Summary module control
	CYSTITES, PROSTATIS, URETHRITIS	3	
	NEW ENDOSCOPIC TREATMENT IN UROLOGY	3	Summary module control
	NEUROGENIC URINARY BLADDER	2	Summary module control
	ANOMALY OF THE URINO-GENITAL SYSTEM	2	
	TUMOURS OF GENERATIVE ORGANS	3	Summary module control
	TUBERCULOSIS OF MALE GENERATIVE ORGANS	3	Summary module control
3	Preparation for the summary control adoption of the module-clinical urology	4	Summary module control
In all		44	

List of the practical skills borne in matricul of practical skills

N	Practical skills	Level	Line of the matricul
1	Exammination of a patient with Urinary Stone Disease	4	IV

2	Exammination of a patient with acute retention of urine	4	IV
3	Catheterization of the Urinary Bladder by elastic catheter	4	II

14. The list of tasks for individual work of students (IRS)

- Participation in student science club and presentations at scientific forums.
- Production of laminated tables with topics relevant discipline.
- Selection of video and audio material from sections of discipline.

15. METHODS AND FORMS OF CONTROL

In assessing students given preference standardized methods of control:

- testing (oral, written, computer);
- structured written work;
- structured control of practical skills;
- oral examination;
- oral interview

A list of questions for preparation of students to the final module control

Methods of research of organs of the urinary and masculine sexual system.

1. Organs of the urinary and masculine sexual system, it functional value.
2. Clinical anatomy of organs of the urinary and masculine sexual system.
3. Pains syndrome at the disease of kidneys.
4. Pains syndrome at the disease of ureters and urinary bladder.
5. Pains syndrome at the diseases of urine and masculine sexual system.
6. Differential diagnosis of kidney colic and acute surgical diseases of organs of abdominal region.
7. Nycturia, it diagnostic value.
8. A method of blockade of elements of seminal duct and round ligament of uterus by Lorin-Epshteine.
9. Polyuria and polakiuria. Which diseases are the reasons?
10. Incontinences of urine, it kinds.

11. Acute uroschisis.
12. Chronic uroschisis.
13. Symptom of remaining urine.
14. Anury, its kinds.
15. Reasons of prerenal form of anury.
16. Reasons of renal form of anury.
17. Reasons of postrenal anury.
18. What is “hidden leukocyteuria” and methods of its exposure?
19. Hematuria: kinds, reasons of origin, methods of determination.
20. Bacteriuria, its kinds.
21. Chyluria, its kinds.
22. Pyuria.
23. Pnevmaturia.
24. Uretroragia.
25. Survey urography and its interpretation.
26. Excretory urography, its kinds, method of implementation.
27. Types of contrast x-Ray medicine.
28. Contra-indication to implementation of excretory urography.
29. Retrograde ureteropielography, method of implementation.
30. Retropneumoperitoneum, testimony to implementation, method of implementation.
31. Kidney angiography, its kinds. Diagnostic value.
32. Cistography, kinds, testimony to implementation, diagnostic value.
33. Urethrography, kinds, method of implementation.
34. Radioisotope renography, method of implementation, diagnostic value.
35. Scanning of kidneys.
36. Scintigraphy, kinds, diagnostic meaningfulness.
37. Computer tomography, MRI.
38. Ultrasonography.
39. Thermography examination, it kinds, diagnostic value.
40. Urofloumetry, cystomanometry.
41. Anomalies of kidney vessels.
42. Anomalies of kidneys.
43. Anomalies of urethers.
44. Anomalies of urachus.
45. Anomalies of urinary bladder.

46. Anomalies of urine.
47. Anomalies of testicles.
48. Phimosi and paraphimosi.

Inflammatory diseases of organs of the urinary and masculine sexual system. Urolithiasis.

49. Acute pyelonephritis, determination, classification.
50. Ways of penetration of infection to the kidney.
51. Clinical management of acute serous pyelonephritis.
52. Diagnostics and treatment of acute pyelonephritis.
53. Apostematous nephrite: symptoms, diagnostics, treatment.
54. Carbuncle of kidney: symptoms, diagnostics, treatment.
55. Abscess of kidney: symptoms, diagnostics, treatment.
56. Pyelonephritis of pregnant: reasons of origin, clinic, diagnostics, treatment.
57. Bacteriemia shock: stages, symptoms, diagnostics, treatment.
58. Etiology of chronic pyelonephritis, symptoms, diagnostics, treatment.
59. Pionephrosis: symptoms, diagnostics, treatment.
60. Methods of determination of hidden leucocyturia.
61. Nephrogenic high blood pressure: kinds, reasons, diagnostics, treatment.
62. Acute paranephritis: determination, ways of penetration of infection, symptoms, diagnostics, treatment.
63. Ways of breach of pus at a paranephritis.
64. Retroperitoneal fibrinosis: determination, etiology, symptoms, diagnostics, treatment.
65. Cystitis: classification, symptoms, diagnostics, treatment.
66. Cystalgia: symptoms, diagnostics, treatment.
67. Urethritis: classification, symptoms, diagnostics, treatment.
68. Prostatitis: classification, symptoms, diagnostics, treatment.
69. Ways of breach of pus at the abscess of prostate.
70. Acute epididimitis: etiology, symptoms, diagnostics, treatment.
71. Serangitis: symptoms, diagnostics, treatment.
72. Etiology and pathogeny of tuberculosis of kidney.
73. Clinico-radiological classification of tuberculosis of kidney.
74. Symptoms and diagnostics of tuberculosis of kidney. A diagnostic value of provocative tests with a tuberculin.
75. Modern methods of treatment of tuberculosis of kidney.

76. Symptoms, diagnostics and treatment of tubercular epididimitis.
77. Etiology and pathogenesis of urolithiasis.
78. Clinical picture of stone of kidney.
79. Complication of stone of kidney.
80. Methods of diagnostics of stone of kidney.
81. Modern methods of treatment of urolithiasis.
82. Coral stone, its classification.
83. Stone of ureters: symptoms, diagnostics, treatment.
84. Stone of urinary bladder: clinic, diagnostics, treatment.
85. Hydronephrosis: stages, symptoms, diagnostics, treatment.
86. Nephroptosis: stages, symptoms, diagnostics, treatment.

Traumatic damages and neoplasms of organs of the urinary and masculine sexual system. Acute and chronic renal insufficiency.

87. Classification of the closed damages of kidneys.
88. Symptoms, diagnostics and treatment of the closed damages of kidneys.
89. Classification of the opened damages of kidneys, symptoms, diagnostics and treatment.
90. Damage of ureters. Symptoms, diagnostics, treatment.
91. Damage of urinary bladder, kinds, clinical manifestation.
92. Diagnostics and treatment of damages of urinary bladder.
93. Damage of urethra, symptoms, diagnostics, treatment.
94. Indications for primary sutures of urethra.
95. Types of plastic operations are at post injury complications of damages of urethra.
96. Modern mini-invasion methods of treatment of narrowing of urethra.
100. Damage of testicles, kinds, symptoms, diagnostics, treatment.
101. Classification of tumors of the kidneys.
102. Local and extrarenal signs of tumor of parenchima of kidney.
103. Diagnostics and treatment of tumors of parenchima of kidney.
104. Cancer of kidney, symptoms, diagnostics, treatment.
105. Tumor of Wilms – adenomiosarcoma, symptoms, diagnostics, treatment.
106. Tumors of ureters, clinic, diagnostics, treatment.
107. Etiology of tumors of urinary bladder.
108. Classification of tumors of urinary bladder.

109. Clinic, diagnostics and treatment of tumors of urinary bladder.
110. Modern mini-invasion methods of treatment of tumors of urinary bladder.
111. Hyperplasia of prostate, stage of disease.
112. Symptoms, diagnostics and treatment of hyperplasia of prostate.
113. Types of operation at treatment of hyperplasia of prostate.
114. Conservative treatment of hyperplasia of prostate.
115. Early and late complications of operative treatment of hyperplasia of prostate.
116. Stages of cancer of prostate.
117. Symptoms, diagnostics and treatment of cancer of prostate.
118. Operative treatment of cancer of the prostate.
119. Modern mini-invasion methods of treatment of cancer of the prostate.
120. What preparations are used for treatment of the cancer prostate?
121. Clinic, diagnostics and treatment of tumors of testicle.
122. Clinic, diagnostics and treatment of cancer of penis
123. Symptoms, diagnostics and treatment of nephroptosis.
124. Etiology, clinic, diagnostics and treatment of urino-vaginal fistula.
125. Etiology, clinic, diagnostics and treatment of urino-vaginal fistula.
126. Echinococcosis of organs of the urinary system.
127. Filariasis of organs of the urino-genital system.
128. Urinary schistosomiasis: etiology, clinic, diagnostics and treatment.
129. Neurogenic disorders of urination, reason, symptoms, diagnostics and treatment.
130. Extranous bodies of kidneys and urinary ways: clinic, diagnostics, treatment.
131. Etiology, pathogenesis and classification of acute renal insufficiency.
132. Symptoms, diagnostics and treatment of acute renal insufficiency.
133. Etiology, pathogeny of chronic renal insufficiency.
134. Stages and forms of clinical passing of chronic renal insufficiency.
135. Diagnostics and treatment of chronic renal insufficiency.
136. Indications to implementation of peritoneal dialysis.
137. Indications to implementation of hemodialysis.
138. Fibroplastic induration of penis, clinic, diagnostics, treatment.
139. Priapizm: clinic, diagnostics, treatment.
140. A value of hemofiltration and plasmaferesis at treatment of chronic renal insufficiency.
141. Transplantation of kidney. Preparation of patient to the operation, selection of donor.
142. The postoperation period after transplantation of kidney.

The first aid at the diseases of organs of the urino-genital system.

143. Reasons and symptoms of renal colic.
144. Methods of treatment of renal colic.
145. Method of blockade of elements of ductus deferens of male and round ligament of uterus of female.
146. Reasons of acute uroschisis.
147. Method of catheterisation of urinary bladder in male and female.
148. Hematuria, its kinds, reasons.
149. Medicare at hematuria.
150. Anury, its kinds.
151. Medicare at the different types of anury.
152. The first aid at the injury of kidney.
153. The first aid at the traumas of urinary bladder, urine, organs of scrotum.

**Reference list of practical skills
for final control of the modules
The module is «Urology»**

1. To perform palpation of kidney.
2. To perform percussion and palpation of urinary bladder.
3. To perform palpation of urethra and organs of scrotum.
4. To perform palpation of prostate.
5. To estimate the indexes of general analysis of urine.
6. To estimate the indexes of biochemical blood test.
7. To execute the catheterisation of urinary bladder by elastic catheter.
8. To interpret cystoscopy and cystochromoscopy.
9. To interpret results:
 - a) survey urography, cysto- and urethrography;
 - b) isotopic x-Ray;
 - c) sonography.
10. To perform differential diagnostics of renal colic with acute surgical diseases of organs of abdominal region.
11. To make the scheme of examination and treatment of the patient with urology pathology.
12. To perform the blockade of elements of ductus deferense of men and round ligament of uterus of women.
13. To give a help at kidney colic, traumas of organs of the urinary and masculine sexual system, hematury, anury, acute uroschisis.
14. To perform replacement of drainage of urinary bladder.
15. To install and to fix a permanent catheter in the urinary bladder.
16. To give a help at phimosis and paraphimosis.
17. To perform the surgical dressing of wounds of organs of the urinary and masculine sexual system.
18. Washing of drainages.
19. To take a smear from the cavity of urine.
20. A dressing of nephrostoma and it drainage.

5. Control forms and criteria of evaluation of knowledge at the end of working day.

Control measures include the current and eventual control.

The current control is carried out during conducting of practical classes for verification of level of preparation of student to implementation of concrete work. Form of conducting of current control: verbal questioning, solution of situation tasks, test control, implementation of practical work. Entrance, intermediate, eventual level of knowledge of student are estimated. The results of estimation are brought in a register.

Progress of students is estimated on a 12 – ball scale:

10 - 12 balls is mark “ excellent “). It is proposed to the students which captured theoretical knowledge in obedience to the program, ability to use these knowledge for estimation of practical skills was shown, Captured practical skills which are foreseen by the program.

7 - 9 marks (estimation it is "good") is put to students which captured theoretical knowledge in obedience to the program, ability to use these knowledge for estimation of practical skills was shown. Captured practical skills which are foreseen by the program, but at estimation of knowledge of abilities insignificant of no principles mistakes are assumed.

4 - 6 marks (estimation "satisfactorily") is put to students which captured theoretical material and practical skills, but in the process of their estimation assumed severe mistakes or showed not enough knowledge on separate questions.

1 - 3 marks ("unsatisfactorily") is put to students which did not capture the program, their knowledge and ability must be further perfected and worked in the time taken for independent work of student.

Maximal amount of points for current educational activity of student – 120.

A student is admitted to final module control in case of implementation of requirements of working program in time and if for current educational activity he collected not less than 40 points.

Final module control is enrolled for student, if he collected not less than 50 points from 80 points.

Scale of evaluation of estimations in Ukraine and its accordance of EST:

_____ fine (A)
_____ well (B)
_____ satisfactorily (C)

_____ (D)
_____ (E)
_____ unsatisfactorily with possibility of the repeated exam (F X)
_____ unsatisfactorily with the mandatory repeated course (F)

Program has been discussed and adopted at the sub-faculty meeting

16.06 2017, minute No 25

Department of Surgery №1 with Urology and miniinvasive surgery

named by prof. L.Y. Kovalchuk

prof. A. Bedenyuk

6. List of material and technical providing of educational process.

1. Compact Disk «Urology ».

2. Educational tables (12) .

3. Urologie department of the Ternopil regional communal clinical hospital with the X-ray room, cystoscopic cabinet, dressing-room, operating room.

7. Reference

a) basic :

1. Donald R. Smith, M.D. General Urology, 11-th edition, 1984.
2. Official Journal of the European Association of Urology /2002-2005/.
3. Urological Guidelines (European Assosiation of Urology) Health Care Office /august 2004 edition/.
4. Scientific Foundations of Urology. Third Edition 1990. Edited by Geoffrey D. Chisholm and William R. Fair, MD. Heinemann Medical Books, Oxford.
5. O.F.Vozianov, O.V.Lyulko. Urology.- Kyiv: Vischa shkola, 1993.
6. Mysak A. Methodical Instruction to Practical Lessons. – Ternopil, 2005.

b) supplementary literature:

1. Urinary Tract Infection and Inflammation / Jackson E. Fowler, JR. MD. Year Book Medical Publishers, Chicago 1989.
2. European Urology Supplements /2002-2006/.
3. Urological Oncology. Editors J. Lorens, J. Dembowski, R. Zdrojowy /Dolnoslaskie wydawnictwo edukacyjne, Wroclaw 2002, 2003/.
4. European Urology via www.eropeanurology.com
5. Urology The Gold Journal /www.goldjournal/net/.