# ODESSA NATIONAL MEDICAL UNIVERSITY Departmen of Urology and Nephrology

### METODSCAL WORKING of practical training for teachers

Topic 9. Inflammatory diseases of the lower urinary tract and male genital organs. Prevalence of urinary disorders in the Southern region.

Academic discipline "Urology"

Level of higher education: Second (Master's)

Knowledge field: 22 "Health Care"

Specialty: 222 "Medicine"

Program of professional education: Medicine

Approved methodological meeting on the chair 28. 08. 2023
Protocol № 1
Head. Chair prof. F.I. Kostev

**THEME PRACTICE SESSION:** Inflammatory diseases of the lower urinary tract and male genital organs. Prevalence of urinary disorders in the Southern region. -2 hours.

**RELEVANCE** of the theme: urinary tract and male reproductive organs are the most common diseases in both outpatient and hospital practice and tend to be redistributed is primarily due to the socio-economic and ethical aspects of contemporary society., data diseases predominantly men and women active young and middle-aged, adversely affecting both the economic and demographic indicators.

#### 2. the objectives of the session:

- 2. Training objectives: 1.
- to acquaint the students with up-to-date data on the epidemiology of inflammatory diseases of the urinary bladder diseases male sexual organs (UTI), cystalgiya.

The student must know:

- 1.clinical manifestations of inflammatory diseases of the urinary bladder and male sexual organs, cystalgiya;
- 2. current data on the pathogenesis of cystitis, cystalgiya, (UTI);
- 3.standard diagnostic algorithm for examining the patients withcystitis, cystalgiya, (UTI) and differential diagnosis of this group of diseases;
- 4. modern methods and principles of conservative treatment of cystitis, cystalgiya, (UTI) and indications for prompt treatment;
- 5.principles and methods of granting urgent medical care to patients with cystitis, cystalgiya, (UTI)

*Give students the opportunity to learn:* 

*Give students the opportunity to master the techniques (to):* 

- 1. carry out inspection and palpation of male sexual organs;
- 2. perform material from urethra, male genitals for further clinical trials;
- 3. perform the digital rectal examination of the prostate;
- 4. perform catheterization of the urinary bladder;
- 5. master techniques cystoskopy;
- 6.interpret data clinical, laboratory and instrumental studies patients to diagnose and difdiagnostiks of cystitis, cystalgiya, IDMSO.

Develop students ability to explore, in theory, clinically justified:

- 1. differential-diagnostic signs of cystitis and cystalgiya;
- 2. bacterial prostatitis and "abakterial";

3. specific and non-specific urethritis, kavernitis.

#### 2Educational objectives:

To acquaint the students with the contribution of native scientists develop methods of diagnosis and treatment, cystitis, cystalgiya, IDMSO.

To acquaint the students with the deontological aspects of behaviour of doctors when communicating with patients suffering from (IDMSO), cystitis, cystalgiya, cavernitis.

Based on the theme a sense of responsibility of physician for timeliness and correctness of professional action on patients with cystitis, cystalgiya, cavernitis, IDMSO.

#### 3. INTERDISCIPLINARY INTEGRATION

No	Discipline	Know	To Be Able To
p/p			
1	2	3	4
1	PREVIOUS DISCIPLINE		
	Anatomy	-Anatomy of the prostate gland	
		and external sexual organs,	
		bladder.	
	histology	-The histological structure of	
		the prostate, scrotum external	
		genital organs, bladder.	
		- Morphological characteristics	
	pathological anatomy	of inflammatory	
		processes that occur in	
		the male sexual organs	
		and urinary bladder.	
		- physiological role of prostate,	

	Physiology	testicular, external genital organs of the urinary bladder.	
		classification and pathogenetic mechanisms of inflammation.	
	pathophysiology of	concepts and classification main antimicrobial treatments IDMSO, inflammatory diseases of the urinary system,	
	Pharmacology	mechanisms of their action, as well as the principles of choice of the drug. Possible side effects of antimicrobial therapy. characterization, classification and principal of IDMSO inflammatory disease of the urinary system.	Assign appropriate antibakterial therapy in acute inflammation of the bladder, male genitals, without waiting for the results of antibiotikogramm.
2.	2. microbiology	topographic Anatomy of pelvic in men and women.	to obtain biological material for study, to be able to evaluate the data antibiotikogramm.
	operative surgery and topographic Anatomy  FOLLOWING DISCIPLINES	about spinal painful syndrome in the spine as a possible indicator of prostatitis and vesiculitis;	

	on possible vegetative-vascular	
Nevropatologists	Dystonia as indicator of	Exclude prostatitis as the
	Chronic prostatitis	cause of pain in the spine.
	compulsory surveys of men,	
	women who suffer from	Delete the pathology of
	inflammatory diseases of	spine, as a possible cause
	genitals.	cystalgiya.
	Compulsory gynecological	
Gynaecologists	survey of women who suffer	
	from cystitis and cystalgiya.	
	A similar picture of cancer and	
	sclerosis of the prostate during	
	the transrektal study.	
	The similarity of the clinical	
	picture of cystitis and cystalgiya	
	with tumors of the urinary	
expected *	bladder.	A differential diagnosis
		between multiple sclerosis
	compulsory gynecological	and prostate cancer, as well
	survey of women, men suffered	-
	at inflammatory diseases of	•
	genitals;	urinary bladder.
	the need for differential	dimary stadasti
	diagnosis between cystitis,	
with urologists	cystalgiya and tumors of the	Perform an external
with thologists	urinary bladder.	examination, palpation,
	urmary bradder.	percussion urinary.
		percussion unitary.
		Perform cystoskopy,
		<b>3</b> 13,
		evaluation of ultrasonic,
		radiological and clinical
		research.

		The possible development of pyelonephritis amid chronic inflammation of the bladder, IDMSO.	Delete the associated IDMSO, cystitis, cystalgiya.
3.	VNUTRIPREDMETNAÂ INTEGRATION 1.Pyelonephritis	the possibility of development infravesikal obstruction as a complication of inflammatory diseases of genitals. And that infravesikal obstruction is one of the risk factors for development of inflammatory diseases of genitals.	deleted infravesikal obstruction in patients suffering from inflammatory diseases of genitals.
•	2. Infravesikal obstruction		

### 4. content of lessons (structurally-logical schema)

nozoform	prostatitis	ure	ethritis	kavernitis	cystitis	cystalgia
----------	-------------	-----	----------	------------	----------	-----------

Diagnostics	Clinical:	Laboratory:		Insti	rumental <b>:</b>
	complaints	Agg. an. Blood		ULTR	ASOUND;
	medical history	An. Urine:		Uret	hroscopy;
	primary	overall;			noskopiâ;
	inspection	three glass sample;			ography;
	(palpation,	sample Nechyporen	ko:		toskopiâ
	percussion)	bacterial urinalysis	,		, o s 11 o p 1 u
	Feermanne	study of juice of the	prostate.		
		Swabs from the uret	-		
		PB,			
		Identification of the	Activator		
		(Cultural, serologic,			
Treatment	Operational		Conservativ	re	
	(generalization of	And Aetiotropic	Pathogenetic		Symptomatic
	the prostate gland		- improven Microcirculati		- analgesics;
	and	-antibacterials		on phlogistic	_
	abscedirovanii)	different groups	therapy;		
		with parasite	therapy;	asyvaûŝaâ	
			- stimulati	on of	
			immunity -	removal	
			infravezikalob		
Prevention		abilitation èkstagenita	• •		
	Normalization and streamlining of sexuality, correction of hormonal disorders.				

### 5. PLAN and ORGANIZATIONAL STRUCTURE of CLASSES

#	Main	stages	of	Traini	ng	Learning	tools	and	Material	methodical	Durat	ion
p/p	studies,		their	object	ives	controls			providing	visibility,	(in	
	function	and co	ntent	in	the				monitoring tho	se studying	minu	tes
				level	of						or%.)	
				maste	ring						of	the
											total	time
											classe	es
1	Preparat	ory									6 min	utes

2	Organizational				
	arrangements				
	Setting training				
	objectives				
	Monitoring entry-	$\alpha = 1$	- Front Desk Express	Tables, figures, maps, slides,	
	level knowledge		procurators	tools, structurally-logical	
	- IDMSO		personally meet	schema, videos.	
	epidemiology,				
	cystitis,	$\alpha = 2$			
	cystalgiya		- Individual oral	Questions for poll, written	
		$\alpha = 2$	procurators	theoretical tasks, test control	
	-clinical IDMSO;		personally meet	level 2.	
	- characterization of	$\alpha = 2$	- Solution of typical		
	the main agents		tasks.		34 min.
	of IDMSO,	$\alpha = 2$	- Written theoretical		
	cystitis.		procurators		
	- current data on the		personally meet.		
	pathogenesis of				
	cystitis,	$\alpha = 2$			
	IDMSO,				
	cystalgiya				
		$\alpha = 2$			
	- diagnostic				
	algorithm for				
	examining the				
	patients with				
	IDMSO,		- Test control level 2		
	cystitis,				
	cystalgiya;				
	- modern methods				
	and principles of				
	treatment of				

	cystitis, IDMSO, cystalgiya principles and methods for delivering emergency care to patients with IDMSO and cystitis.				
2.	Main				90 min
	1.to palpation of	$\alpha = 3$	Method of forming	Training equipment (history	
	external genital		skills.	of the disease, clinical tests,	
	organs, bladder;		Practical training at	x-rays, ultrasound, etc.).	
	2.perform the digital	$\alpha = 3$	bedside.	orientirnye card (diagnostic	
	rectal		Use of replicas and	algorithms and difdiagnostiks	
	examination of		sets of tools.	IDMSO, cystitis, cystalgiya),	
	the prostate;		Method of forming	algorithms and guidance	
			skills	notes the consistent	
	3.perform	$\alpha = 3$		implementation of medical	
	catheterization		Professional training	manipulation	
	of the urinary		in dealing with		
	bladder;	$\alpha = 3$	untypical situational	Atypical written educational	
	4.interpret data		tasks.	tasks, history of diseases of	
	clinical,			real patients, patients with	
	laboratory and			IDMSO, cystitis, cystalgiya,	
	instrumental			3rd level.	
	studies patients		Test control 3rd level.	Set of catheters to perform	
	to diagnose and			catheterization of the urinary	
	difdiagnostics			bladder, models of different	
	IDMSO,			diseases of the prostate, male	
	cystitis,			and female pelvis plaster cast	
	cystalgiya.			for practicing catheterization	

				of the urinary bladder.	
3.	Final				30 min.
	3. Control and correction level 1 skills and habits.	(α) = 3	Individual control skills, palpation of the bladder, prostate, percussion and bladder catheterisation.	Real patient. Set of catheters to perform catheterization of the urinary bladder, models of diseases of the prostate, male pelvis plaster cast	
			Individual control skills The atypical situation, test control level 3	Text situational tasks and test 3rd level.	14 min.
	3. Summary 2 Summary of lessons (theoretical, practical, institutional) 3.3. homework:				4 min.
	learning literature on the subject (primary and secondary)				2minutes.
				List of primary and secondary literature	

### 6. METHODICAL PROVIDING of TRAINING MATERIALS.

 $7.1 \ \textbf{Materials control preparatory phase activities}.$ 

1. which of the following symptoms are characteristic of acute urethritis:
And hematuria);
B) dysuria;
Purulent secretions in) free from urethra;
G) fever;
2. What are the main symptoms of acute kataral'nogo prostatitis.
A) moderate, however severe perineal pain;
B) initial hematuria;
C) diarrhea;
(D)) pollakiuriâ;
E) – pain.
3. which of the following drugs are infiltrating the prostate?
And Penicillins);
B) • fluoroquinolones;
Macrolides in);
G) cephalosporins;
D) aminoglycoside.
4. When uretroprostatite based on trehstakannoj samples pyuria noted in the following portions
A) 1st;
B) 3rd;
In) at all;
Mr) grade 2 and grade 3;
D) 1st and 3rd
E) 1st and 2nd
5. the therapist asked woman complaining of the frequent urination. For cystitis characteristic
symptom:
A) dysuria

B) fever

C) increased blood pressure
D) vomiting
E) neither
5. activators of Chronic prostatitis can be:
Kokowa microflora and)
In) Chlamydia
C) trihomonas
D) ureoplazms
(E)) all listed
6. quantitative research urine sediment samples are used to diagnose latent lejkociturii.
Determination of the number of leucocytes, èritrocitiv and cylinders available with urine per day
achieved breakout:
A) Ambûrže
B) Nechyporenko
(C)) Kakovs'kogo-Addisa
D) Renal Function-Reberg
E) Zimnickogo
7. Woman complains about the frequent and painful urination. For cystalgiya is characterized by
all except:
A) frequent urination
B) pyuria
C) normal bladder mucous membrane
D) urea blood 5.0 mmol/l
E) dysuria
8. see a doctor has a patient who long treated about prostatitis. Note the unusual for Chronic
prostatitis symptoms:
A decline in kidney function)
B) decrease the disappearance of lipoids grains (lecitin grains)

- B)
- C) long, recurring period.

- D) absence of defect filling at cistogramm
- E) sclerotic modified, densely elastic moderately sensitive prostate when rectal study.

- 9. Increase the number of leucocytes amid provocation pirogenalom characteristic:
- A) chronic cystitis

In latent pyelonephritis)

With Chronic prostatitis)

- D) for any
- (E)) for all those

#### **Tasks**

- 1.Patient 27 years after hypothermia complains about heart painful urination, increased body temperature. at survey of external genitalia without features during rectal research prostate increased in size, primarily through the right proportion where there is a floating in the overall analysis of blood 1-18 g/l, p-8, FW-40 mm/pm, in the analysis of urine-l. cover all fields of your preliminary diagnosis? What diagnostic activities should be asked to confirm the diagnosis? What healing tactic in this case?
- 2. Patient of 35 years two weeks ago suffered acute anginu day ago noticed increased right half mošny in size and pain for the last time noticed. and increased body temperature during inspection of scrotum increased in size, skin taut, differentiation of scrotum impossible, its palpation painful in the overall analysis of urine-no pathology in common blood 1-16 g/1, w-9, FW-25 mm/hours your preliminary diagnosis? What tactics further investigation and patient treatment?
- 3. Patient of 25 years complains about continuous perineal pain, difficulty urinating, accelerated ejaculation and periodic pain during orgasm. Sometimes notes blood in sperm. your preliminary diagnosis. what investigation showing the patient? What tactics further treatment?
- 4. Female of 28 years old, married, two years ago, a young sal'pingooforitis. Notes periodically (in spring and autumn) heart, sometimes painful urination, mostly happy, pain in suprapubic region. Night strong urination urge Vex. before visiting the urologist gynecologist, was inspected and did not find any diseases of the genital organs. Repeated urine-without pathological changes of disease should think? what disease should be differential diagnosis?

5. Woman 25 years makes a complaint to the accelerated, painful urination with blood at the end. Got sick after bathing in cold water. In the analysis of urine leukocytes, RBC-completely-30-40. A tentative diagnosis?

#### Reference answer test tasks

- 1 b.
- 2 a..
- 3. b
- 4 d..
- and 5.
- e 6.
- , 7.
- in 8.
- and 9.
- 10 e..

#### Reference answers to task

- 1.Preliminary diagnosis-prostate abscess. for verification of diagnosis demonstrates a transrectal ultrasonography. to confirm diagnosis shows opening abscess transperineal or transrectal.
- diagnosis of the patient-acute epididymitis. investigation displaying ultrasound mošny. treatment-early intervention "(èpididimotomy, or èpididimèctomiy if the abscesses occurs).
- 3.Preliminary diagnosis-kollikulitis. to verify which show how to execute uretroskopy. treatment-burning with silver nitrate solutions seed colliculum (2%-3%) and treatment of major diseases (prostatitis).
- 4.first of all, consider cystalgiya and a differential diagnosis with cystitis and tumor of the urinary bladder.
- 5.a preliminary diagnosis of acute cystitis.

7. milestone 2 Materials for classes.

Challenge	Execution sequence	Comments
Master the skill,	ituation. patient-knee-loktevoe.	ATTENTION!
palpation of the	Previously oiled (FAT basis) finger	Prior studies to exclude acute diseases of rectum
prostate	in rubber gloves is entered into the	(hemorrhoids, proctitis) in which the study is
	rectum.	contraindicated).
	-5 cm from the anus palpabrate	Patients IDMSO prostate increased, round shape,
	prostate in shape, similar to the	Groove, will clear, painful glands at palpation. Its
	chestnut.	consistency- elastics.
	Palpabrate right and then left the share cancer between which	Patients FPW-in one or both of an is palpabreate plots Rocky density, painless. Outlines of cancer
	clearly defines the meždolevaâ	often unclear. With involments of capsules-
	Groove.	mucous membrane of the rectum-fixed.
	Surface glands in norm elastics,	ATTENTION! In patients with multiple sclerosis
	clear contours, iron is painless	also prostate gland may be rocky density. In the
	when palpation.	absence of clinical signs of FPW final diagnosis
	after examination, the patient	can be made only after punctiona biopsy.
	should be asked to release of urine	
	bladder.	
	penis Head is located between 3rd	
	and 4th fingers of the left hand.	
	External opening of the urethra and	
	head of the penis are processed with an antiseptic means.	ATTENTION!
	Previously oiled (sterile Vaseline)	Acute inflammation of the urethra (urethritis), as
	catheter (appropriate size) right	well as the prostate (prostatitis) are a
	hand into the urethra before	contraindication to catheterisation. In such cases
2. master the	appearance of urine.	for withdrawal of urine is èpicystostomy.
technique	duction line 4. urine catheter is	In case of impossibility of rubber catheter, you
catheterisation	removed.	should perform catheterization metal catheter (only
rubber catheter		specialist!) or to epicystostomy.
bladder in men	ituation of the patient. "-while	
	standing. Pal'pabrate bodies scrotum, ranging	
	from seed to hem cord over the	
	top.	
	1	Attention!
		Normally, the left testicle is in most cases below
		right!
2 4 1 111		If you have a fluid between wrappers should run
3. master a skill		diaphanoskopy to remove hemorrhagic ecsudatis.
examination and palpation of		
organs of scrotum		
organs or scrotuill	<u>l</u>	

#### Test tasks

1. at what prostate disease are observed the following clinical signs?

Disease	Prostatitis	Benign prostatic
		hyperplasia
Terminator		
1.pain in perineum		
Dysuria 2.		
3 Night pollakiuriya.		
4. Feeling of incomplete bladder emptying		
5. Pyuria in 3rd servings		

#### Situational tasks.

1. Patient 23 years complains about the periodical blunt pain in the suprapubic areaarea, incomplete erection, accelerated ejaculation. During the examination of the prostate normal size soft texture, moderately painful at palpation. Visual changes of external genital organs. In the analysis of juice prostate 1-5-8, lecitinovye of grain in small quantities.

A tentative diagnosis? Does the absence of increased amounts of leucocytes in secret prostate Chronic prostatitis? What additional studies should be performed for verification of diagnosis?

- 2. patient 26 years complaints about the free allocation of the urethra, which noted in 2 weeks after casual sexual relationship. When microscopic study of allocations-l 80-100. Trichomonads, diplokokki and other flora are not identified. A preliminary diagnosis? Which studies should be performed for verification of diagnosis?
- 3.23 years complains of Sore itch in uretre, dizuriû, throughout the week. When researching the prostate is the last normal shape, dimensions, painless. Was extracted juice prostate which leucocytes cover all fields of view. Can I talk about in a patient of inflammation of the prostate gland? What was bug doctor?

#### Reference answer test tasks

	Disease	Prostatitis	Benign prostatic
			hyperplasia
Terminator			
	1.pain promižnosti	+	-
	Dysuria 2.	+	+
	3 Night pollakiuriâ.	-	+
	4. Feeling of incomplete bladder	-	+
	emptying	+	-
	5. Pyuria in 3rd servings		

#### Benchmarks respond to the challenges

- 1.Preliminary diagnosis-Chronic prostatitis. lack of increased number of WBCs in the juice of the prostate does not exclude prostatitis, a possible "obstruction" discharge duct cancer. to confirm diagnosis should ultrasound study of prostate and monitoring study of juice after several massages, which will eliminate obstruction.
- 2.a preliminary diagnosis of urethritis-pungent. lack of specific flora does not exclude the presence of an infectious agent, the prevalence of chlamidiya, ureaplazms, mikoplazms and herpetic forms of the disease in order to search which should perform custom research methods, polymerase chain reaction (PCR), IFA titles blood antibody etc. then begin èthiological therapy.
- 3.Assert the existence of inflammation of the prostate is warranted because the background of clinical picture was taken for study urethritis juice prostate wrong. Juice should take after prostate research first chunk of urine, to liberate the urethra of leukocytes.
- 7.4 Material methodical providing of self-study students during work with literature.

Learning objectives	Guidance
Learn Main etiological factors IDMSO and cystitis	Give the profile a major infectious agents that cause IDMSO and cystitis.
sic 2. pathogenetic mechanisms of development IDMSO, cystitis, cystalgiya	List the current data on the pathogenesis of cystitis, IDMSO, cystalgiya.
Advanced clinical classification IDMSO, cystitis.	What are the main principles and criteria on which categorization occurred IDMSO, cystitis
Diagnostic algorithms survey patients on IDMSO, cystitis, cystalgiya	Draw a diagnostic algorithm for examining the patients with IDMSO, cystitis, cystalgiya.
Differential diagnostics IDMSO.	List the main criteria for differential diagnosis of IDMSO. Create and populate a table characteristics of differential diagnostics IDMSO.
Differential signs of cystitis and cystalgiya	List major signs of cystitis and cystalgiya. Create and populate a table sign of cystitis and cystalgiya.
omplication of IDMSO and their diagnosis.	Make a table of complications that arise in patients with IDMSO. Calculate how to diagnose complications.
modern principles and methods of treating IDMSO depending on the stage of the disease.	Make a diagram of modern treatments (conservative, operative) IDMSO depending on the clinical stage. List the criteria for choosing one over the other kind of conservative, prompt treatment IDMSO. Let feature modern pharmacological drugs used to treat IDMSO.
	Make a diagram of modern treatments for cystitis and cystalgiya depending on the clinical stage. List the criteria for choosing one over the other kind of conservative, prompt treatment. Let feature modern pharmacological drugs used to treat cystitis and cystalgiya.
nodern principles and methods of treatment of cystitis and cystalgiya.	Make a table of complications that arise in patients with cystitis and cystalgiya. Calculate how to diagnose complications.

.Complications of cystitis and cystalgiya and their diagnosis.	

#### Developers:

Head of Department of Urology and Nephrology, Professor F.I. Kostev, Professor of the Department of Urology and Nephrology Yu.M. Dekhtyar Professor of the Department of Urology and Nephrology M.I. Ukhal Associate Professor of the Department of Urology and Nephrology I.V. Rachok Associate Professor of the Department of Urology and Nephrology L.I. Krasiliuk Associate Professor of the Department of Urology and Nephrology M.V. Shostak Associate Professor of the Department of Urology and Nephrology R.V. Savchuk Assistant Professor of the Department of Urology and Nephrology S.V. Bogatskyi Assistant Professor of the Department of Urology and Nephrology O.M. Kvasha

## Recommended literature. Basic:

- 1. S.P. Pasechnikov; Urology: textbook/ Ed. S. P. Pasyechnikova, S. A. Vozianov, V. N. Lesovy [and others]. View. 3rd Vinnytsia: New Book, 2019.
- 2. Pasechnikov S.P. Modern problems of urology: [manual]: doctor's guide/ S.P. Pasechnikov, V.I. Zaitsev. Kyiv: L-ry Health of Ukraine; 2017.
- 3. Stus V.P. Urology (practical skills for intern doctors) / V.P. Stus, S.P. Pasechnikov. Teaching and methodical manual. Dnipropetrovsk: Akcent PP LLC, 2016.
- 4. Sarychev L.P. Symptoms of urological diseases: method. rec. For teachers / L. P. Sarychev, S. M. Suprunenko, S. A. Sukhomlyn, Ya. V. Sarychev. Poltava, 2019.
- 5. O.V., Lyulko, O.F. Vozianov Textbook "Urology" 3rd edition. Thresholds Dnipropetrovsk. 2012 p.
- 6. "Urology (Methodical development of practical classes for students)" edited by Professor V.P. Stus, second edition, supplemented. / A.P. Stus, Moiseinko M.M., Fridberg A.M., Pollion M.Yu., Barannik K.S., Suvaryan A.L., Krasnov V.M., Kryzhanivskyi O.Yu. Dnipro: Accent LLC. 2018. 336c.
- 7. Urology: textbook for students. higher med. academic established: translation from Ukrainian publications / S.P. Pasechnikov, S.A. Vozianov, V.N. Lesovoy, F.I. Kostev, V.P. Stus, et al./ Ed. S.P. Pasechnikov Edition 2. Vinnytsia: Novaya Knyga, 2015. 456 p.: illustr.
- 8. Uro1ogy: textbook for students of higher medical education Institutions /S.P. Pasechnikov, S.O. Vozianov, V.M. Lesovoy (et at.); ed. by Pasechnikov. / S.P. Pasechnikov, S.O. Vozianov, V.M. Lesovoy (et at.) Vinnytsia: Nova Knyha, 2016. 400 p.
- 9. EAU Guidelines, edition presented at the 28th EAU Annual Congress, Milan 2021. ISBN 978-90-79754-71-7. EAU Guidelines Office, Arnhem, The Netherlands.
- 10. Alan W. Partin, Alan J. Wein, et. all Campbell Walsh Wein Urology, E-Book (12th ed.) 2020.
- 11. Omar M. Aboumarzouk Blandy's Urology, 3rd Edition 2019.

12. David Thurtle, Suzanne Biers, Michal Sut, James Armitage. - Emergencies in Urology – 2017. 4. Philipp Dahm, Roger Dmochowski - Evidence-based Urology, 2nd Edition – 2018.

#### Additional:

- 1. Boyko M.I., Pasechnikov S.P., Stus V.P. and others Clinical andrology // Doctor's guide "Androlog". K.: LLC "Library "Health of Ukraine", 2013. 222 p.
- 2. Sarychev L.P. Clinical anatomy and physiology of organs of the urinary and male reproductive system: method. rec. for teachers / comp. L. P. Sarychev, S. A. Sukhomlyn, S. M. Suprunenko. Poltava, 2019. 11 p.
- 3. Sarychev L.P. Symptoms of urological diseases: method. rec. for teachers / L. P. Sarychev, S. M. Suprunenko, S. A. Sukhomlyn, Ya. V. Sarychev. Poltava, 2019. 14 p.
- 4. Medical student's library. Urology. Edited by F.I. Kosteva. Odesa, 2004. 296p.
- 5. Atlas-guide to urology. Ed. A.F. Vozianova, A.V. Lulko Dnipropetrovsk, 2002.-T. 1,2,3
- 6. Urology / Ed. Prof. O.S. Fedoruk Chernivtsi: Bukovyna State Medical University, 2011. 344p.

#### **Information resources:**

University website https://onmedu.edu.ua Library library.odmu.edu.ua

- 1. https://uroweb.org/
- 2. https://www.nccn.org/
- 3. https://www.auanet.org
- 4.https://www.inurol.kiev.ua/
- 5. https://www.souu.org.ua/