

**MINISTRY OF HEALTH CARE OF UKRAINE  
THE HIGH STATE EDUCATIONAL INSTITUTION OF UKRAINE  
"THE UKRAINIAN MEDICAL STOMATOLOGICAL ACADEMY"**

**DEPARTMENT OF UROLOGY**

**METHODICAL DEVELOPMENTS  
OF LECTURES ON UROLOGY  
FOR STUDENTS OF 4 COURSE OF MEDICAL FACULTY**

**POLTAVA – 2019**

## **Approved**

at the meeting of department of  
Urology with Forensic Medicine  
protocol № 1 from 28 August 2019

Department chair L.P.Sarychev

### **Methodical development of lecture**

Subject matter	<b>Urology</b>
No. module	<b>1</b>
Lecture subject	<b>Nonspecific and specific inflammatory diseases of of the urinary and male reproductive system. Urolithiasis</b>
Course	<b>IV</b>
Faculty	<b>Medical</b>

#### **Number of hours – 2.**

**1. Scientific and methodical justification of a subject.** Nonspecific inflammatory diseases of urogenital system make more than 60% of urological pathology. Prevalence of the infection of uric ways (UTI) is shown, first of all, on the example of pyelonephritis which in structure of incidence takes the 2nd place after acute respiratory viral infections. In Ukraine over 170 thousand patients suffer from cystitis, over 110 thousand with pyelonephritis are registered annually. The complicated UTI forms develop before of structural and functional anomalies of urinary ways. Risk factors of development of the complicated UTIs are elderly age, pregnancy, anomalies of urinary ways, a diabetes mellitus, persistence of uric drainages. In structure of the patients hospitalized to urological and nephrological hospitals 50-70% fall to pyelonephritis.

About 1 billion people of the globe are infected with tuberculosis, and 10 million annually handle clinical symptoms of tuberculosis. About 20% of cases of extrapulmonary tuberculosis are the tuberculosis of kidneys and male genital system.

The urolithiasis takes the 2nd place after UTIs in structure of urological morbidity. Men suffer from it 2-3 times more often than women. On average the risk of formation of concrements during life equals 5-10%. Patients with urolithiasis make 25-45% of urological patients.

The above testifies the importance of studying of this subject.

#### **2. Educational purposes of lecture.**

Nobility: etiology, pathogenesis, symptomatology, principle of diagnosis and treatment of nonspecific and specific inflammatory diseases of urinary and male reproductive system, principles of antibacterial therapy.

To be able: to establish the diagnosis and to define a medical tactics at this category of patients.

**3. Purposes of development of the identity of the future specialist (educational purposes):** on material of a subject to formulate idea of importance of ability to establish quick diagnosis and to define medical tactics.

**4. Interdisciplinary integration:** anatomy, biochemistry, physiology, pathophysiology, laboratory and radiodiagnosis, propaedeutics, nephrology, phthisiatry, clinical pharmacology.

**5. Plan and organizational structure of lecture:**

No.	Main stages and content of lecture	Lecture type. Means of activation of students. Materials of methodical providing	Distribution of time
1.	Preparatory stage. Determination of relevance of a subject, educational purposes of lecture and motivation	See points 1, 2	5%
2.	Main stage Statement of lecture material according to the plan: 1. The complicated and uncomplicated UTI. 2. Etiology and pathogenesis of acute pyelonephritis. 3. Clinical symptoms of acute pyelonephritis. 4. Diagnosis of acute pyelonephritis. 5. Acute purulent pyelonephritis, features of medical tactics. 6. Gestational pyelonephritis, features of diagnosis and treatment. 7. Urosepsis – clinical manifestations, diagnosis, treatment. 8. Principles of antibacterial therapy of UTI. 9. Reasons, clinical course,	Thematic lecture	90%

	<p>diagnosis and treatment of chronic pyelonephritis.</p> <p>10. Pyonephrosis – an etiology, a pathogenesis, diagnosis and treatment.</p> <p>11. Paranephritis – primary, secondary, an etiology, a pathogenesis, diagnosis and treatment.</p> <p>12. Cystitis, prostatitis, orchiepididymitis, balanoposthitis, cavernitis - an etiology, a pathogenesis, diagnosis and treatment.</p> <p>13. Features of inflammatory diseases of the urinary and male reproductive organs caused by an urogenital infection, diagnosis and treatment.</p> <p>14. Tuberculosis of the urinary and male reproductive organs: pathogenesis, classification, clinic, diagnosis, treatment.</p> <p>15. Modern views on an etiology and a pathogenesis of urolithiasis.</p> <p>16. Clinic, diagnosis, treatment, metafilactics of urolithiasis.</p>		
3.	<p>Final stage</p> <p>Summary of lecture</p> <p>General conclusions</p> <p>Answers to questions</p>	Educational literature	5%

#### **6. Content of lecture material:**

- the developed abstract of lecture (Appendix 1);
- structural and logical scheme of content of lecture (Appendix 2).

**7. Materials of activation of students during a lecture statement:** questions, problem situations, interactive communication of the lecturer with listeners.

**8. Materials for self-training of students for lecture (the list of the questions submitted for final control):**

1. The complicated and uncomplicated UTI.
2. Etiology and pathogenesis of acute pyelonephritis.
3. Clinical symptoms of acute pyelonephritis.
4. Diagnosis of acute pyelonephritis.
5. Acute purulent pyelonephritis, features of medical tactics.
6. Gestational pyelonephritis, features of diagnosis and treatment.

7. Urosepsis – clinical manifestations, diagnosis, treatment.
8. Principles of antibacterial therapy of UTI.
9. Reasons, clinical course, diagnosis and treatment of chronic pyelonephritis.
10. Pyonephrosis – an etiology, a pathogenesis, diagnosis and treatment.
11. Paraneuritis – primary, secondary, an etiology, a pathogenesis, diagnosis and treatment.
12. Cystitis, prostatitis, orchepididymitis, balanoposthitis, cavernitis - an etiology, a pathogenesis, diagnosis and treatment.
13. Features of inflammatory diseases of the uric ways and man's generative organs caused by an urogenital infection, diagnosis and treatment.
14. Tuberculosis of the urinary and male reproductive organs: pathogenesis, classification, clinic, diagnosis, treatment
15. Modern views on an etiology and a pathogenesis of urolithiasis.
16. Clinic, diagnosis, treatment, metafilactics of urolithiasis.

## **9. The used literature:**

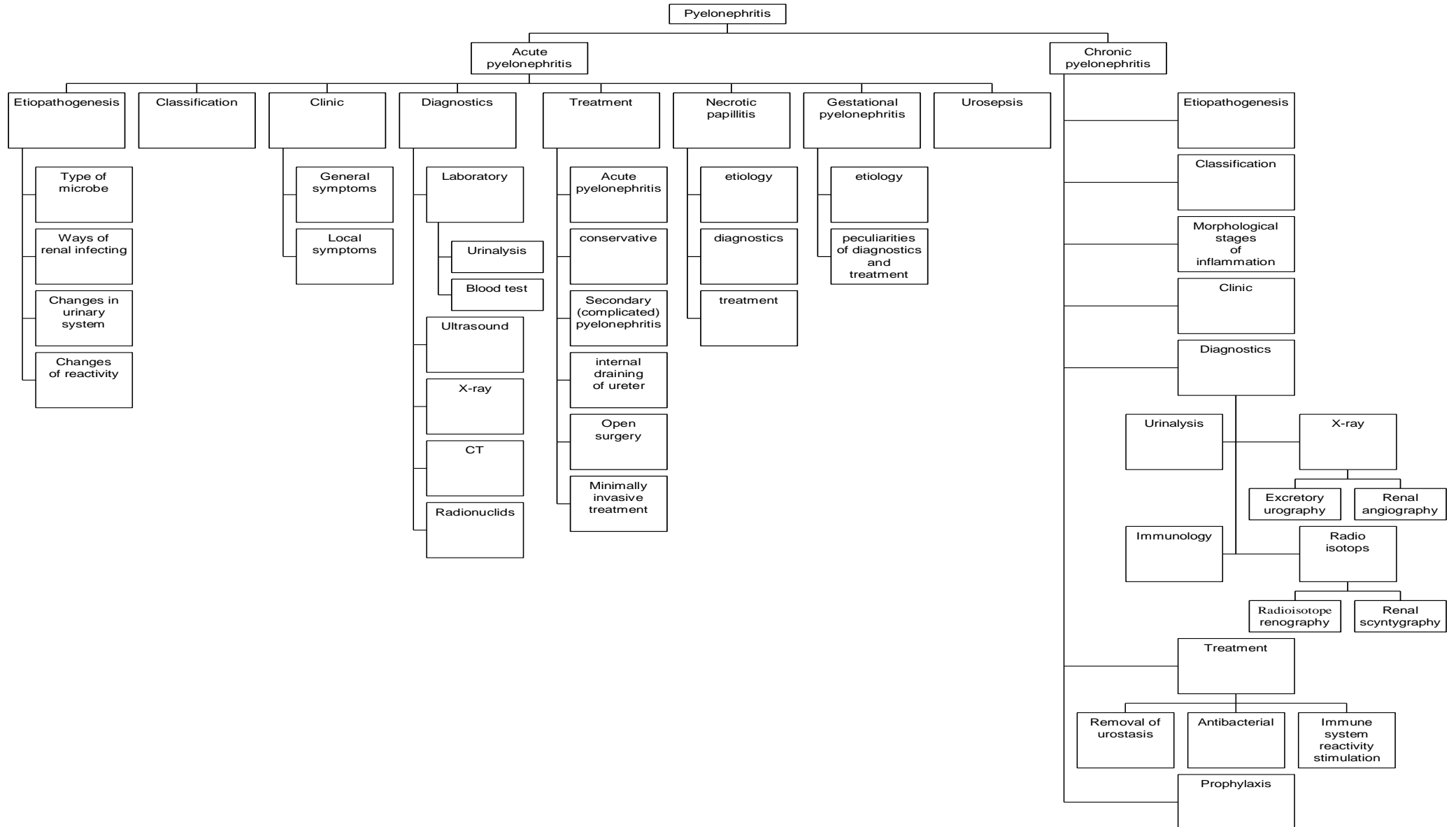
1. Urology: textbook fo students of higher medical educational institutions / S.P.Paciechnikov, S.O.Vozianov, V.M.Lesovoy [et al.]; ed by S.P.Paciechnikov, – Vinnytsia: Nova Knyha, 2016. – 400p. Vinnytsia: Nova Knyha, 2016. – 400 c.: ил. ISBN 978-966-382-589-2.
2. Pasiechnikov S.P., Nikitin O.D., Lytvynenko R.A., Klimenko Y.M. et al. Urology. Study Guide for Practical Work for Medical Students // Vinnytsia, Nova Knyha.- 2012.- 172 p.
3. Bergan . Urinary tract Infections. – Karger, 1997. – P. 142.
4. Dembry L.-M. Renal and perirenal abscesses // Current treatment options in infectious diseases. - 2002. - V.4.- P.21-30.
5. Gaspari R., Bosker G. Urinary tract infection: risk stratification, clinical evaluation, and evidence-based antibiotic therapy – year 2003 update // Primary Care Concensus Update. - 2003.
6. Smith`s General Urology, 18th Edition / Ed. by E.A.Tanagho, J.W.McAninch // Columbus. – McGraw–Hill, 2012. – 978p.
7. Campbell-Walsh Urology, 10th Edition / Ed. by A.J.Wein, L.R.Kavoussi, A.C.Novick // Philadelphia. – Saunders, 2011. - P.1912-2046.
8. Oxford Handbook of Urology, 1st Edition / Ed. by J.Reynard, S.Brewster, S.Biers // Oxford. – University Press, 2006. - P. 136-187.
9. Silvermann S.G., Cohan R.H. CT Urography // Lippincott Williams & Wilkins, 2006. - 272 p.

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Associate Professor Sarychev Y.V.

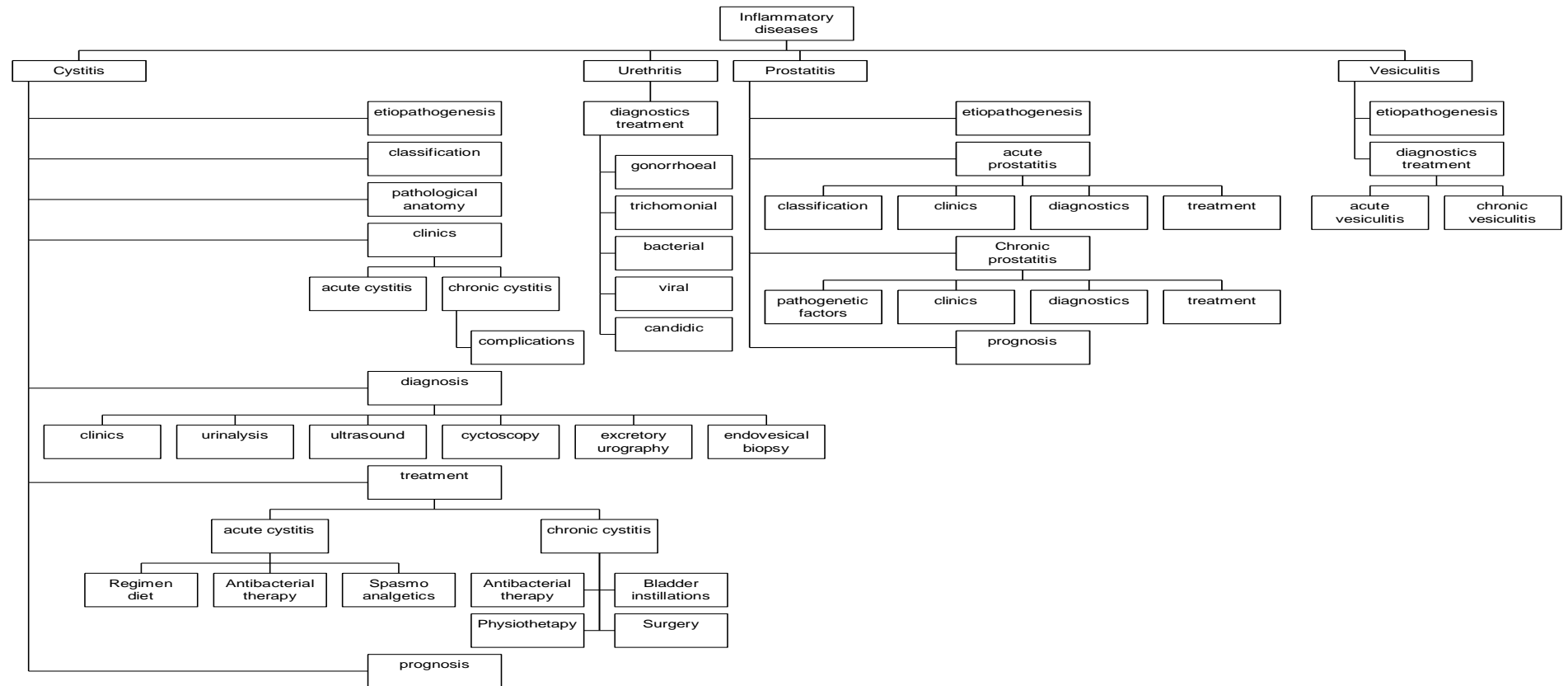
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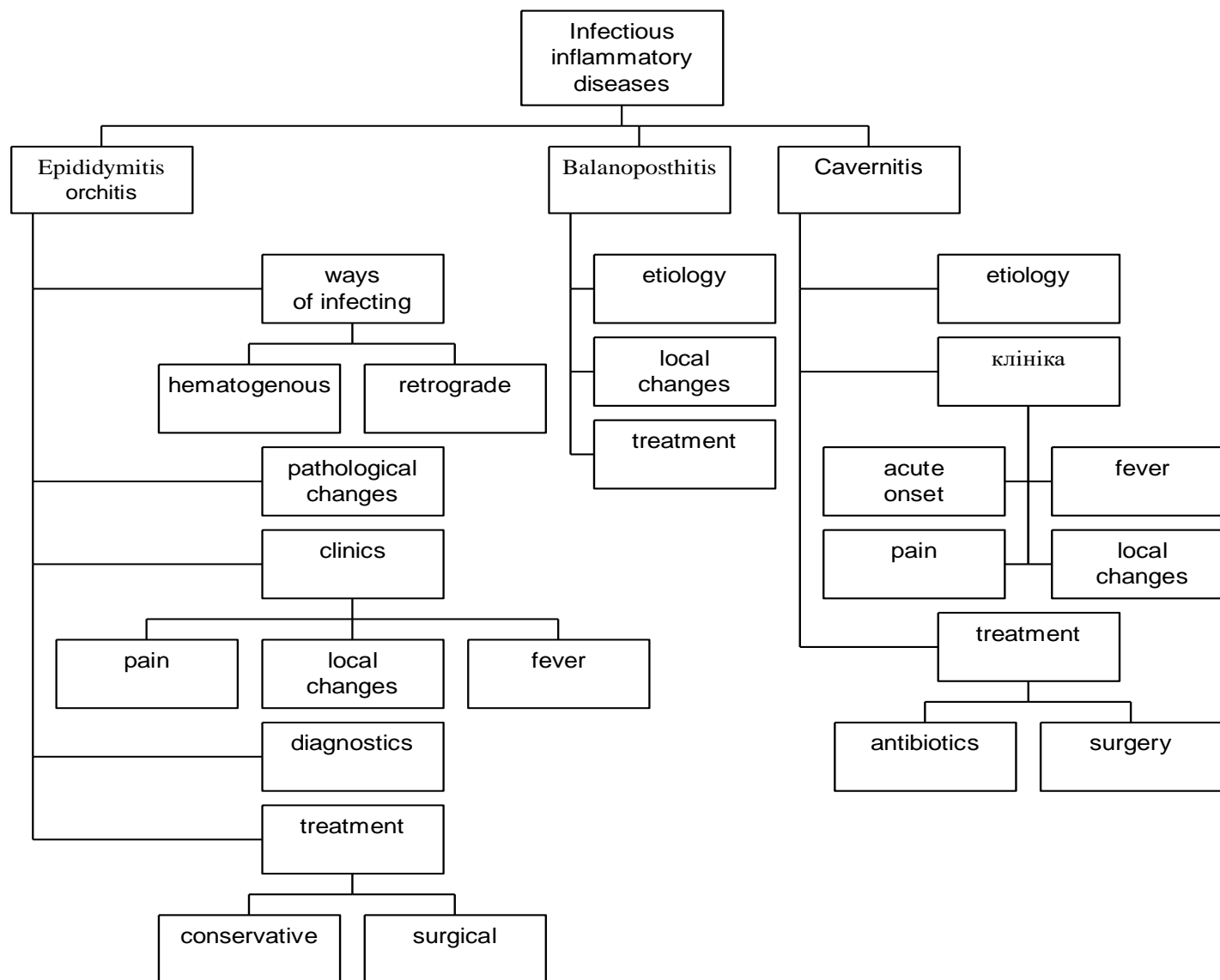
### Structural and logical scheme of lecture



# Structural and logical scheme of lecture

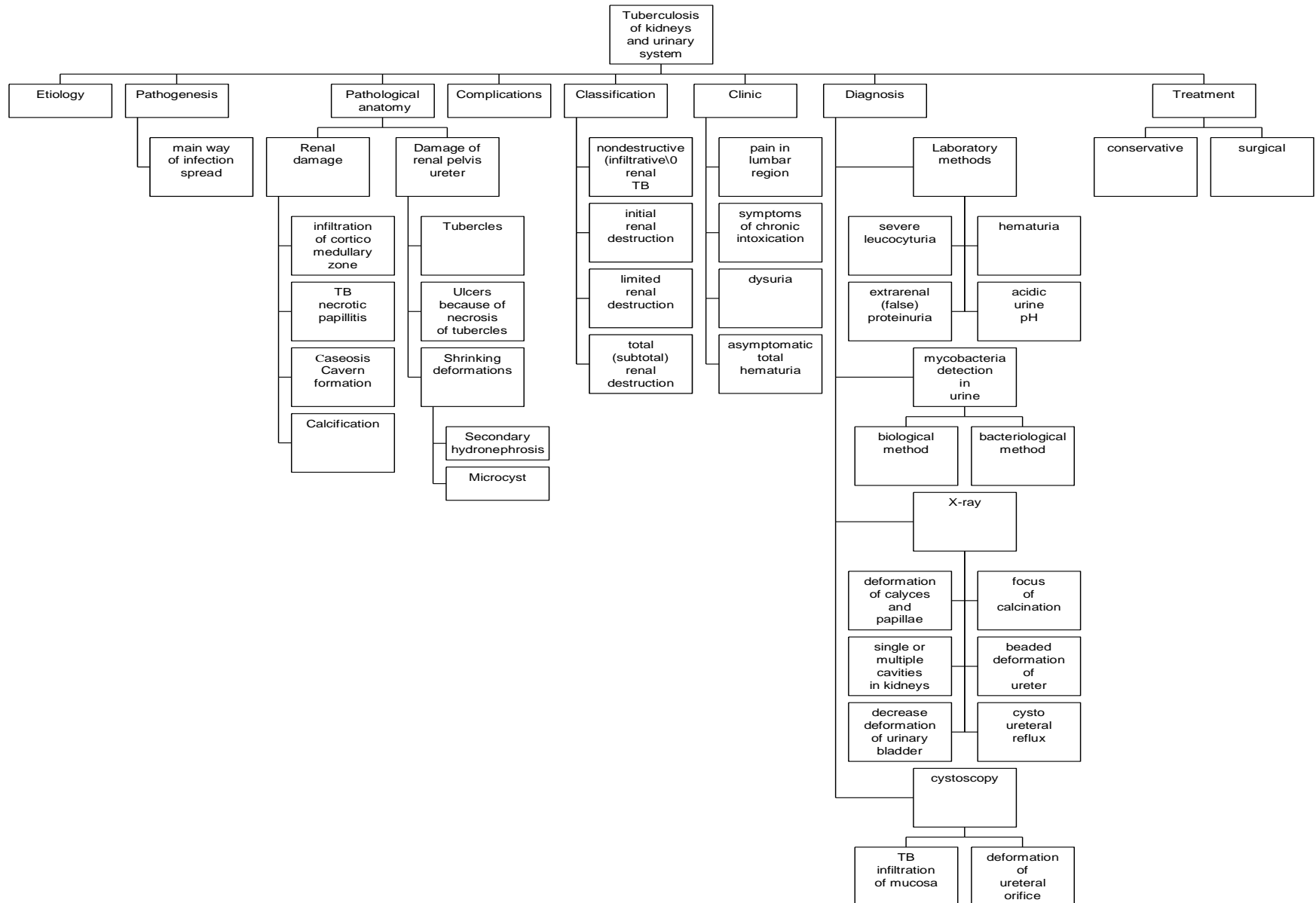


## Structural and logical scheme of lecture

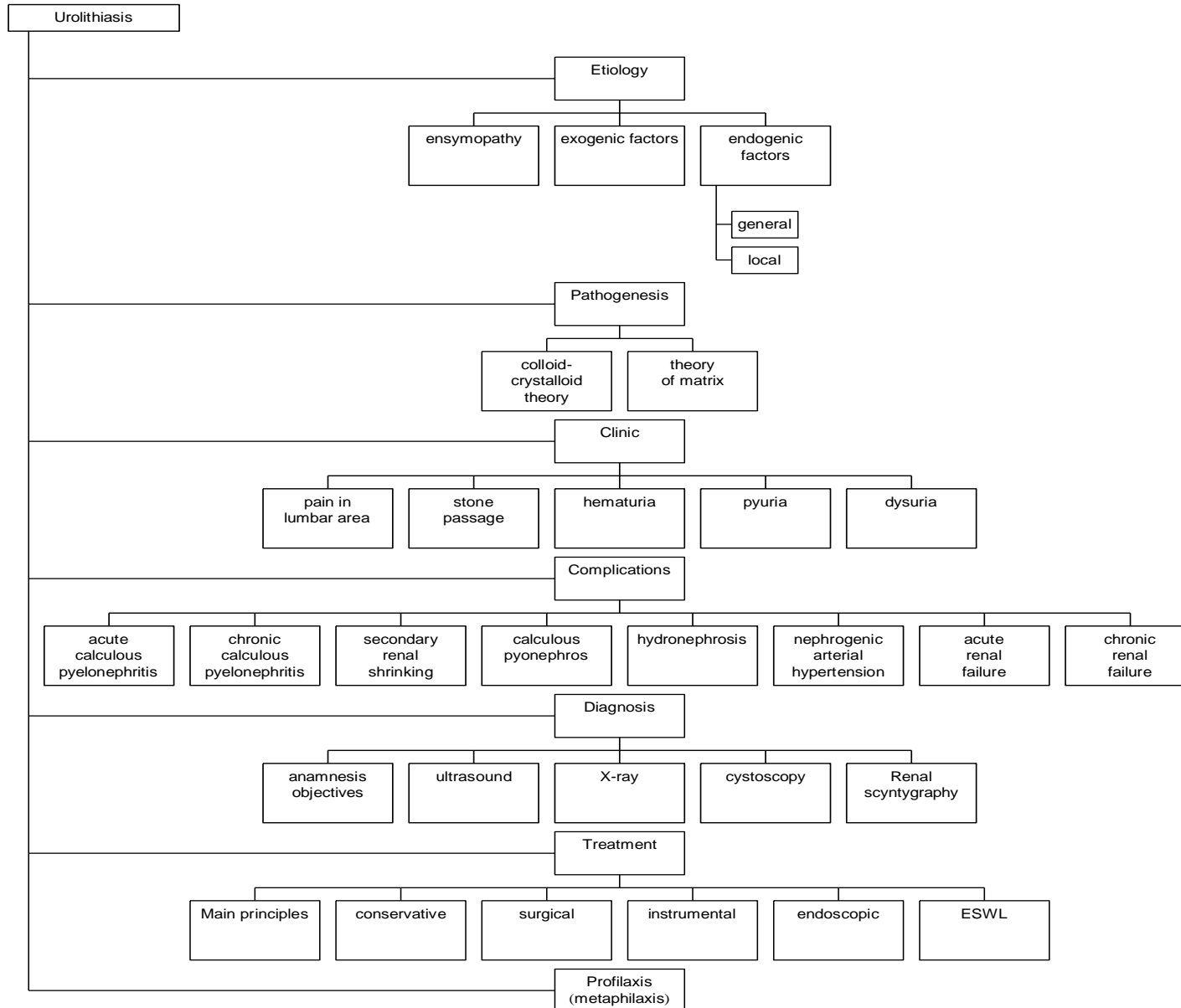




# Structural and logical scheme of lecture



## Structural and logical scheme of lecture





**Approved**  
at the meeting of department of  
Urology with Forensic Medicine  
protocol № 1 from 28 August 2019  
Department chair L.P.Sarychev

**Methodical development of lecture**

Subject matter	<b>Urology</b>
Module	<b>1</b>
Lecture subject	<b>Neoplasms of urinary and male reproductive system</b>
Course	<b>IV</b>
Faculty	<b>Medical</b>

**Number of hours – 2.**

**Scientific and methodical justification of a subject.** Despite progress in diagnosis and treatment, owing to an adverse effect of environmental factors, in connection with increase in life expectancy and a number of other reasons prevalence of neoplasms of urogenital system increases. Annually in the world 200 thousand new cases of incidence of tumors of kidneys are revealed. Over 90 thousand patients annually die. Cancer of urinary bladder is considered as the most frequent malignant tumor of urinary ways. Male morbidity is 2-3 times higher. The prostate cancer prevails among the most important medical problems of male population.

The above testifies to importance of studying of this subject.

**3. Educational purposes of lecture.**

Nobility: etiology, pathogenesis, symptomatology, principle of diagnosis and treatment of neoplasms of urinary and male reproductive system, treatment principles.

To be able: to establish the diagnosis and to define medical tactics at this category of patients.

**3. Purposes of development of the identity of the future specialist (educational purposes):** on material of a subject to formulate idea of importance of ability to quickly establish the diagnosis and to define medical tactics.

**4. Interdisciplinary integration:** anatomy, pathophysiology, laboratory and radiodiagnosis, propaedeutics, oncology, radiology, chemotherapy.

**5. Plan and organizational structure of lecture:**

No.	Main stages and content of lecture	Lecture type. Means of activation	Distribution of time
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		of students. Materials of methodical providing	
1.	Preparatory stage. Determination of relevance of a subject, educational purposes of lecture and motivation	See points 1, 2	5%
2.	<p>Main stage</p> <p>Statement of lecture material according to the plan:</p> <ol style="list-style-type: none"> <li>1. Classification of tumors of kidneys.</li> <li>2. Etiology, clinic, ways of metastasing of parenchymatous tumors of kidneys.</li> <li>3. Vilms's tumor at children.</li> <li>4. Tumors of a renal pelvis and ureter.</li> <li>5. Diagnosis of tumors of kidneys.</li> <li>6. Treatment of tumors of kidneys.</li> <li>7 Etiology, clinic, ways of metastasing of tumors of urinary bladder.</li> <li>8. Diagnosis of tumors of a urinary bladder.</li> <li>9. Treatment of tumors of a urinary bladder.</li> <li>10. Classification, clinic, diagnosis, complications of the benign hyperplasia of a prostate (BPH)</li> <li>11. Diagnosis of BPH.</li> <li>12. Drug and surgical treatment of BHP.</li> <li>13 Etiology, clinic, ways of metastasing of the prostate cancer (PC).</li> <li>14. Diagnosis of PC.</li> <li>15. Treatment of PC.</li> <li>16. Etiology, clinic, ways of metastasing, diagnosis, penis cancer therapy.</li> <li>17. Etiology, clinic, ways of</li> </ol>	Thematic lecture	90%

	metastasing, diagnosis, treatment of tumors of testicles.		
3.	Final stage Summary of lecture General conclusions Answers to questions	Educational literature	5%

## **6. Content of lecture material:**

- the developed abstract of lecture (Appendix 1);
- structural and logical scheme of content of lecture (Appendix 2).

**7. Materials of activation of students during a lecture statement:** questions, problem situations, interactive communication(connection) of the lecturer with listeners.

**8. Materials for self-training of students for lecture (the list of the questions submitted for final control):**

1. 1. Classification of tumors of kidneys.
2. Etiology, clinic, ways of metastasing of parenchymatous tumors of kidneys.
3. Vilms's tumor at children.
4. Tumors of a renal pelvis and ureter.
5. Diagnosis of tumors of kidneys.
6. Treatment of tumors of kidneys.
- 7 Etiology, clinic, ways of metastasing of tumors of urinary bladder.
8. Diagnosis of tumors of a urinary bladder.
9. Treatment of tumors of a urinary bladder.
10. Classification, clinic, diagnosis, complications of the benign hyperplasia of a prostate (BPH)
11. Diagnosis of BPH.
12. Drug and surgical treatment of BHP.
- 13 Etiology, clinic, ways of metastasing of the prostate cancer (PC).
14. Diagnosis of PC.
15. Treatment of PC.
16. Etiology, clinic, ways of metastasing, diagnosis, penis cancer therapy.
17. Etiology, clinic, ways of metastasing, diagnosis, treatment of tumors of testicles.

## **9. The used literature:**

1. Urology: textbook fo students of higher medical educational institutions / S.P.Paciechnikov, S.O.Vozianov, V.M.Lesovoy [et al.]; ed by S.P.Paciechnikov, – Vinnytsia: Nova Knyha, 2016. – 400p. Vinnytsia: Nova Knyha, 2016. – 400 c.: іл. ISBN 978-966-382-589-2.
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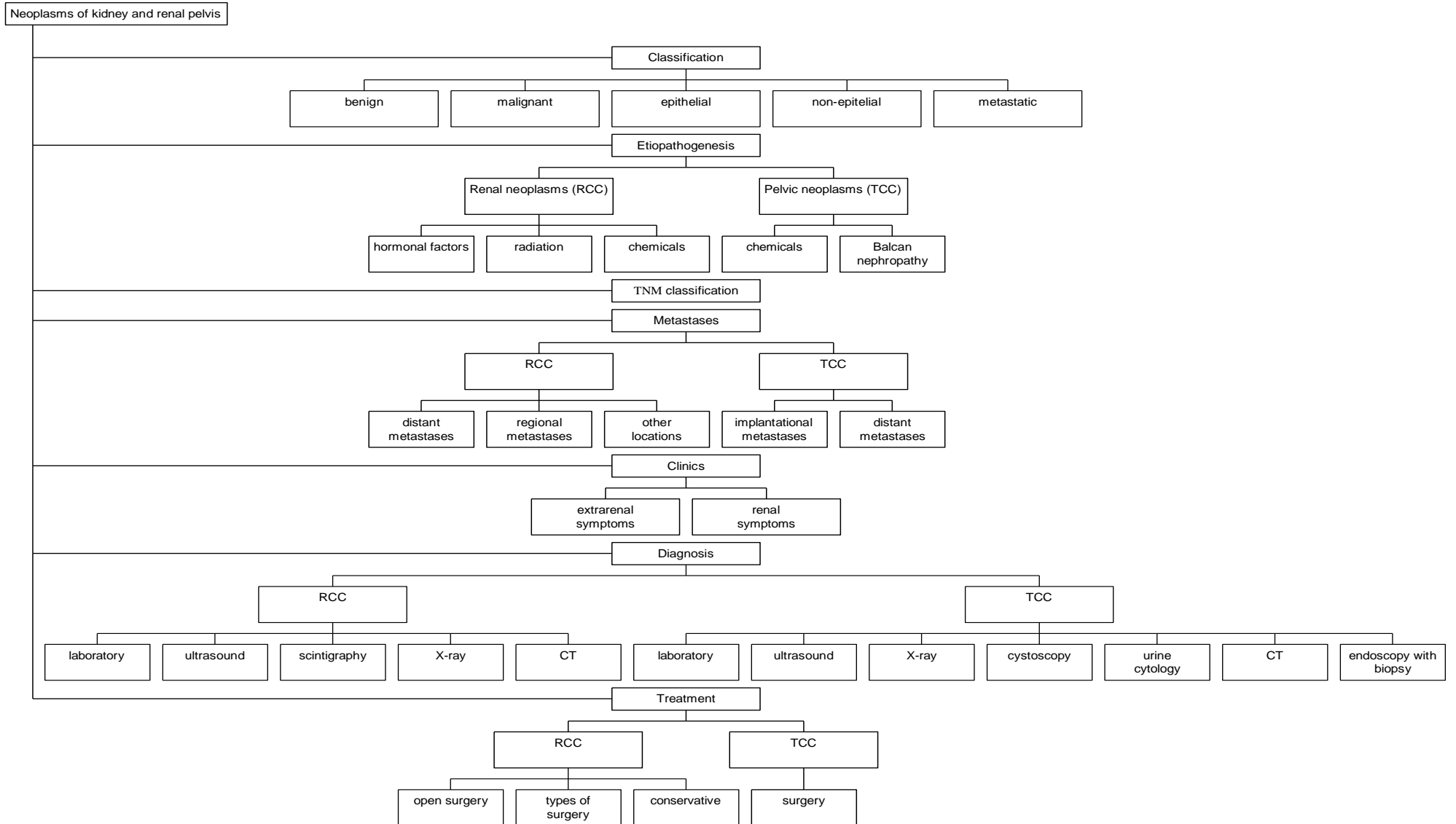
3. Gaspari R., Bosker G. Urinary tract infection: risk stratification, clinical Smith`s General Urology, 18th Edition / Ed. by E.A.Tanagho, J.W.McAninch // Columbus. – McGraw–Hill, 2012. – 978p.
4. Campbell-Walsh Urology, 10th Edition / Ed. by A.J.Wein, L.R.Kavoussi, A.C.Novick // Philadelphia. – Saunders, 2011. - P.1245-1318.
5. Oxford Handbook of Urology, 1st Edition / Ed. by J.Reynard, S.Brewster, S.Biers // Oxford. – University Press, 2006. – 865p
6. Silvermann S.G., Cohan R.H. CT Urography // Lippincott Williams & Wilkins, 2006. - 272 p.
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9. Stamey TA, Yang N, Hay AR, McNeal JE, Freiha FS, Redwine E. Prostate-specific antigen as a serum marker for adenocarcinoma of the prostate. N Engl J Med. 1987. – P.317-325.
- 10.Splinter TA, Scher HI. Adjuvant and neoadjuvant chemotherapy for invasive (T3-T4) bladder cancer. In: Vogelzang NJ, Scardino PT, Shipley WU, Coffey DS, Miles BJ, eds. Comprehensive Textbook of Genitourinary Oncology. Baltimore, MD: Williams and Wilkins; 1996. – P.464–471.

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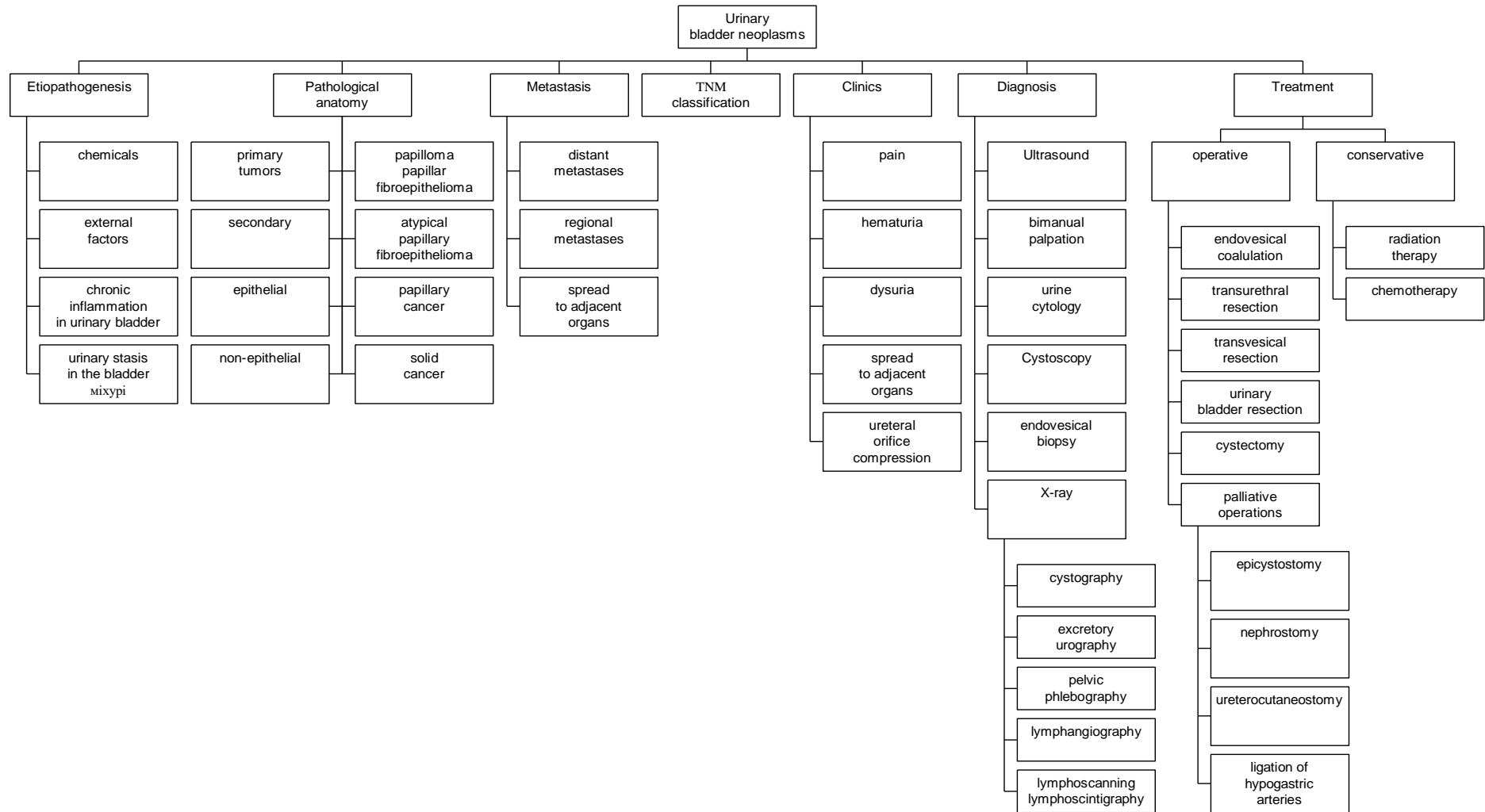
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## Structural and logical scheme of lecture

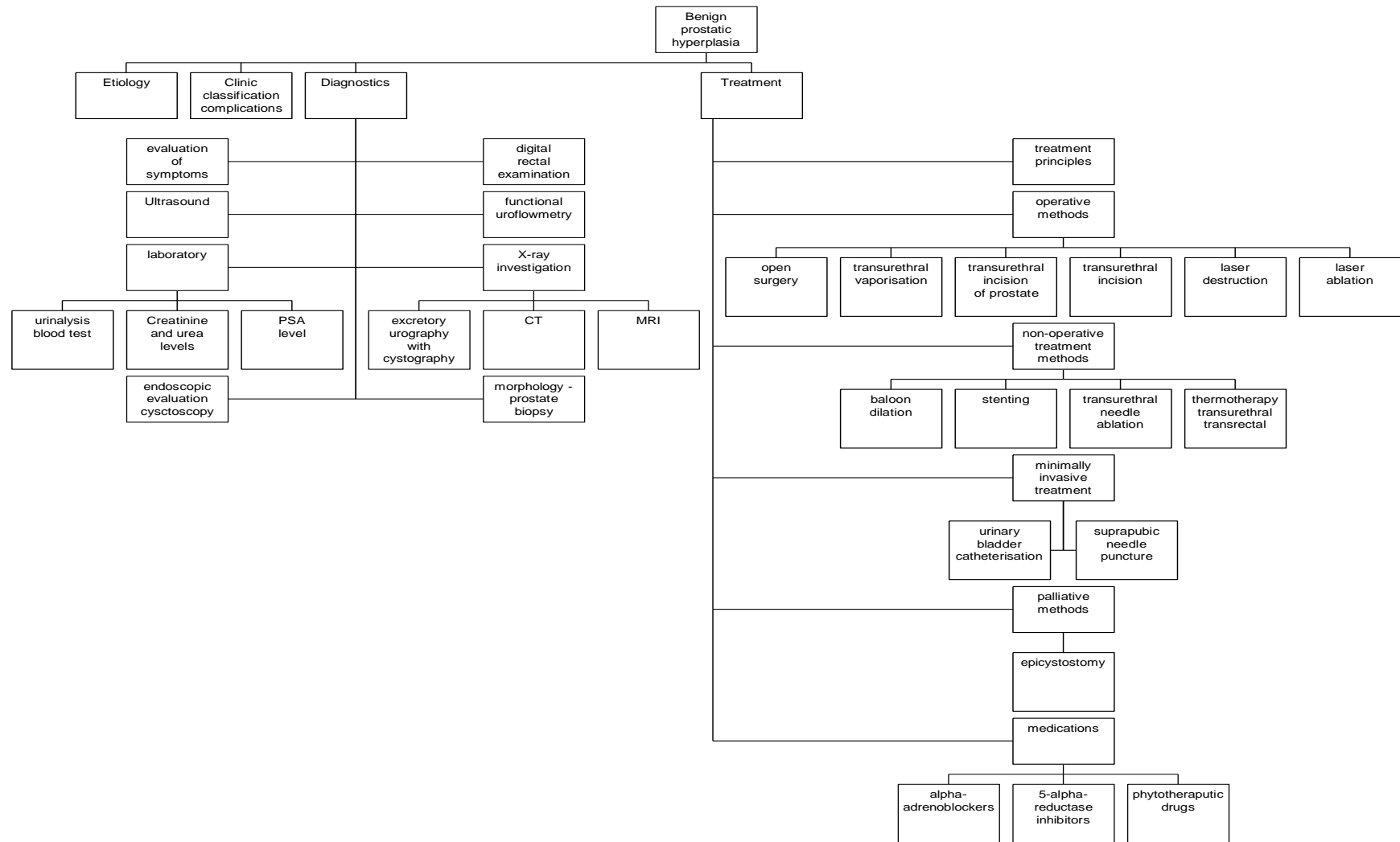




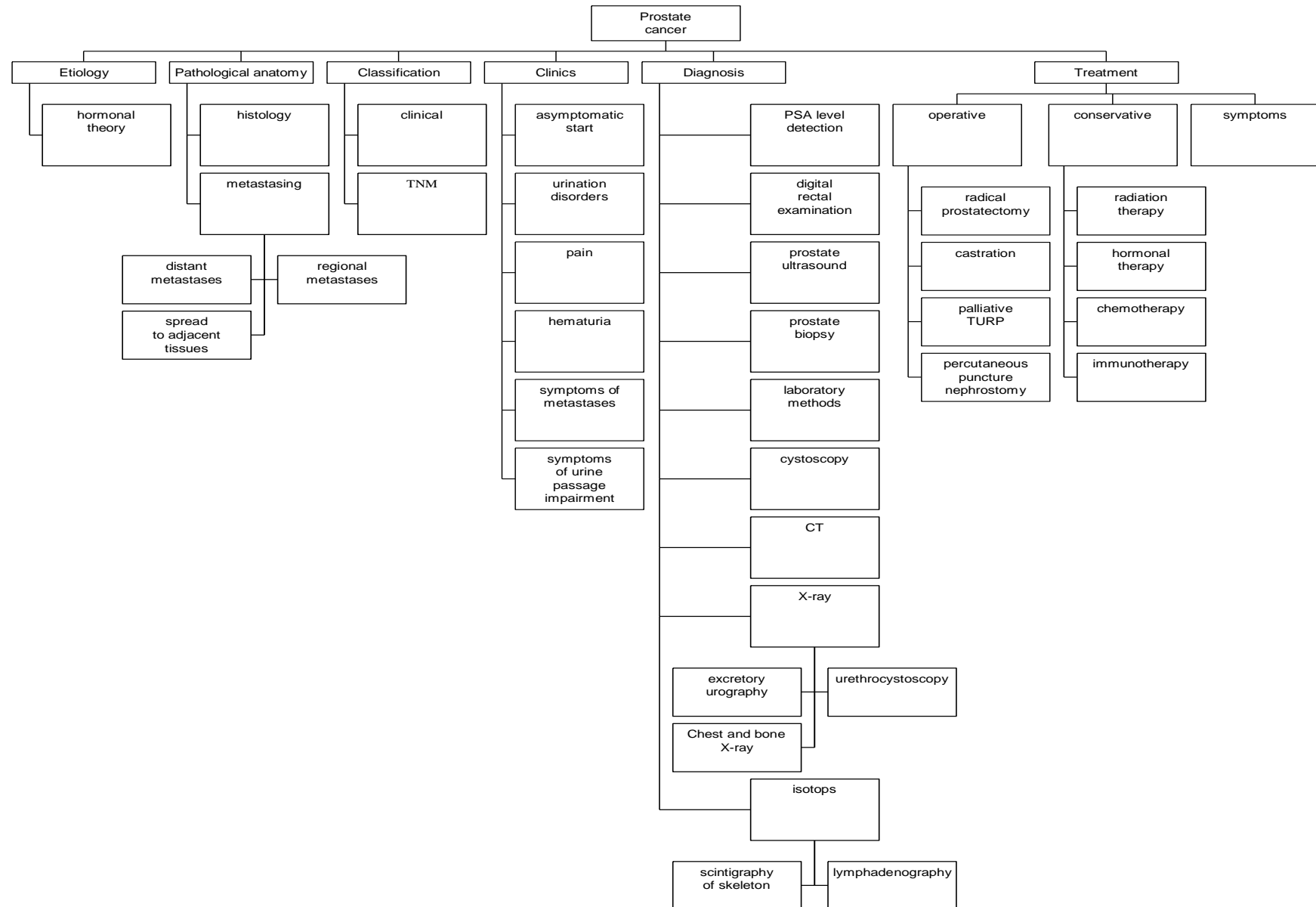
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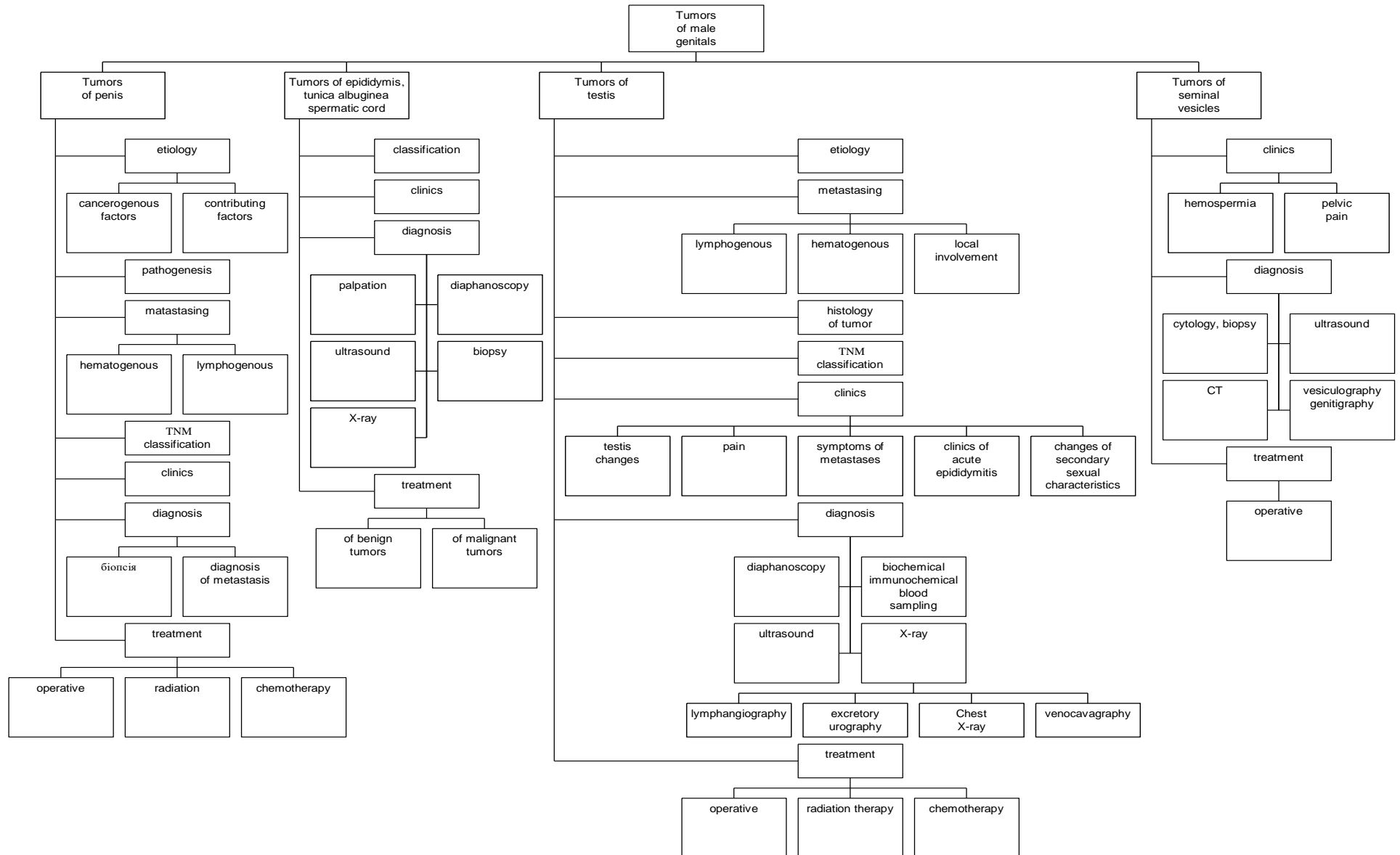
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**Approved**  
at the meeting of department of  
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protocol № 1 from 28 August 2019  
Department chair L.P.Sarychev

**Methodical development of lecture**

Subject matter	<b>Urology</b>
No. module	<b>1</b>
Lecture subject	<b>Traumatic damages of bodies of an uric and male reproductive system</b>
Course	<b>IV</b>
Faculty	<b>Medical</b>

**Number of hours – 2.**

**Scientific and methodical justification of a subject.** Traumatic damages of urinary and male reproductive system organs in 70-80% of cases take place at damage of other organs and systems and quite often pose threat for the patient's life. Kidneys – parenchymatous organs which are damaged more often than other organs of urinary system and an abdominal cavity. The ratio of men and women is 3:1. Injury of a bladder is referred to the heavy pathology demanding emergent medical care. About 70% of injuries of the urethra happen at road transport accidents, 25% - when falling from height and 5% - as a result of others, including the iatrogenic reasons. Specific part of injuries of external genitalia makes 30-50% of all injuries of organs of urogenital system.

The above testifies to importance of studying of this subject.

**2. Educational purposes of lecture.**

Nobility: injury mechanism, symptomatology, diagnostic methods and treatments of damages of bodies of an uric and male reproductive system, principles of acute management.

To be able: to establish the diagnosis and to define medical tactics at this category of patients.

**3. Purposes of development of the identity of the budushchy specialist(expert) (educational purposes:** on material of a subject to formulate idea of importance of ability to quickly establish the diagnosis and to define medical tactics at injuries of organs of urinary and male reproductive system.

**4. Interdisciplinary integration:** topographical anatomy with operative surgery, a pathophysiology, laboratory and radiodiagnosis, traumatology, surgery, clinical pharmacology.

**5. Plan and organizational structure of lecture:**

No.	Main stages and content of lecture	Lecture type. Means of activation of students. Materials of methodical providing	Distribution of time
1.	Preparatory stage. Determination of relevance of a subject, educational purposes of lecture and motivation	See points 1, 2	5%
2.	Main stage 1. Statement of lecture material according to the plan: Classification, the mechanism, clinic, diagnosis, treatment of the opened and closed injuries of kidneys. 2. Classification, the mechanism, clinic, diagnosis, treatment of the opened and closed damages of ureters. 3. Classification, the mechanism, clinic, diagnosis, treatment of the opened and closed damages of a urinary bladder. 4. Extraperitoneal and intraperitoneal rupture of a urinary bladder. 5. Classification, the mechanism, clinic, diagnosis, treatment of the opened and closed injuries of urethra. 6. Classification, mechanism, clinic, diagnosis, treatment of damages of testicles. Torsion of testicles, torsion of epididymis. 7. Classification, mechanism, clinic, diagnosis, treatment of injuries of a penis.	Thematic lecture	90%
3.	Final stage Summary of lecture General conclusions Answers to questions	Educational literature	5%

## 6. Content of lecture material:

- the developed abstract of lecture (Appendix 1);
- structural and logical scheme of content of lecture (Appendix 2).

**7. Materials of activation of students during a lecture:** questions, problem situations, interactive communication of the lecturer with listeners.

**8. Materials for self-training of students for lecture (the list of the questions submitted for final control):**

1. Classification, the mechanism, clinic, diagnosis, treatment of the opened and closed injuries of kidneys.
2. Classification, the mechanism, clinic, diagnosis, treatment of the opened and closed damages of ureters.
3. Classification, the mechanism, clinic, diagnosis, treatment of the opened and closed damages of a urinary bladder.
4. Extra peritoneal and intraperitoneal rupture of a urinary bladder.
5. Classification, the mechanism, clinic, diagnosis, treatment of the opened and closed injuries of urethra.
6. Classification, mechanism, clinic, diagnosis, treatment of damages of testicles. Torsion of testicles, torsion of epididymis.
7. Classification, mechanism, clinic, diagnosis, treatment of injuries of a penis.

**9.The used literature:**

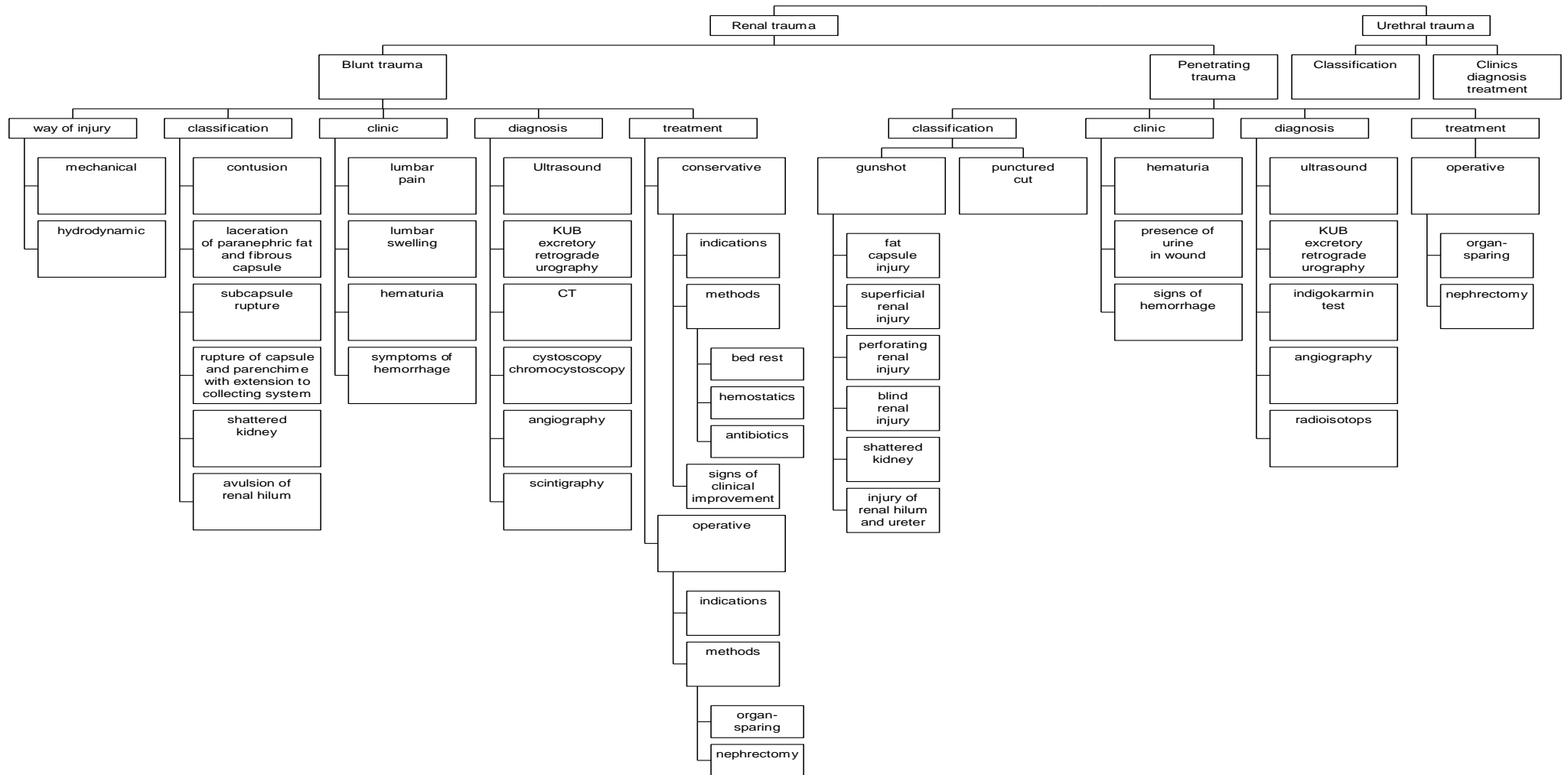
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6. Silvermann S.G., Cohan R.H. CT Urography // Lippincott Williams & Wilkins, 2006. - 272 p.
7. Diamond M. Pediatric management of ambiguous and traumatized genitalia. J Urol. 1999. – Vol.162(2). –P.1021–1028.

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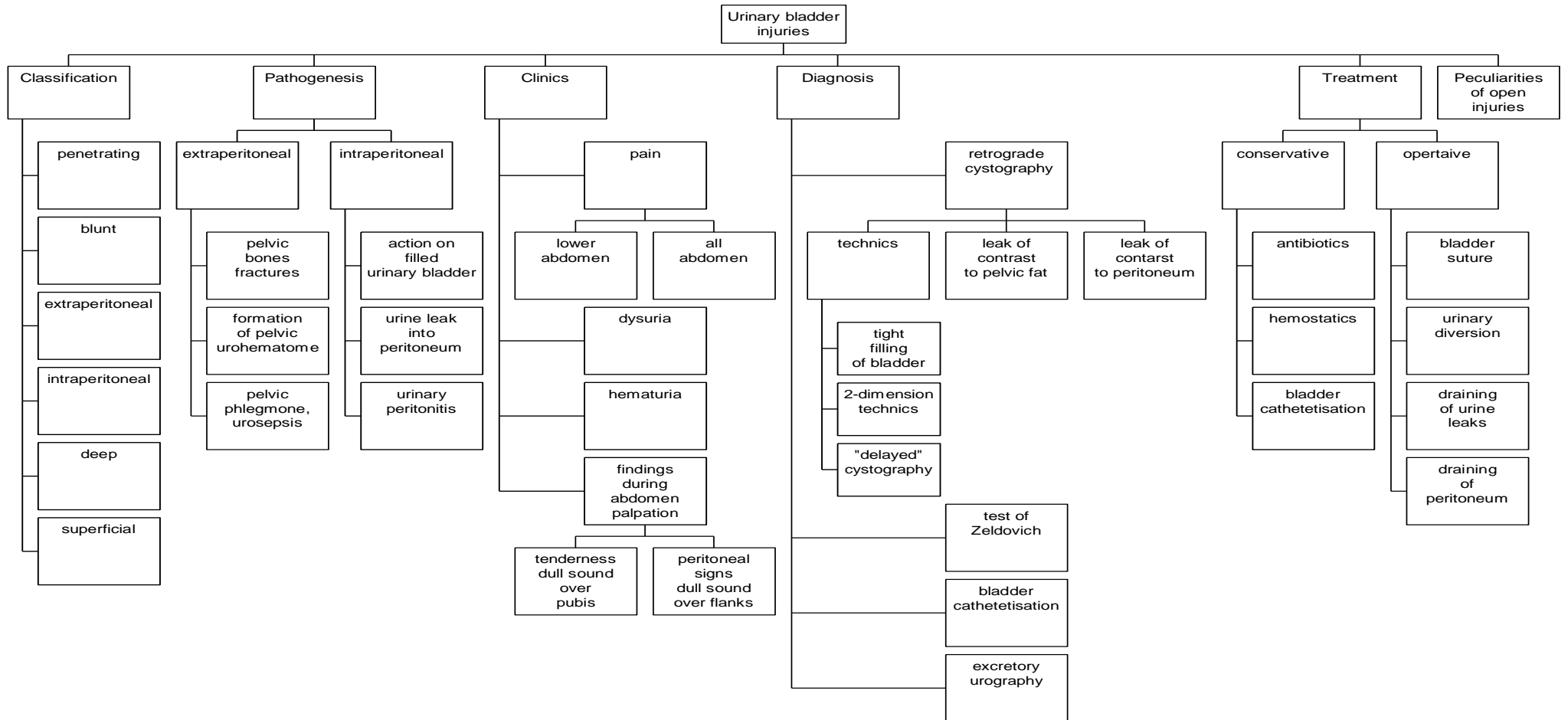
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## Structural and logical scheme of lecture

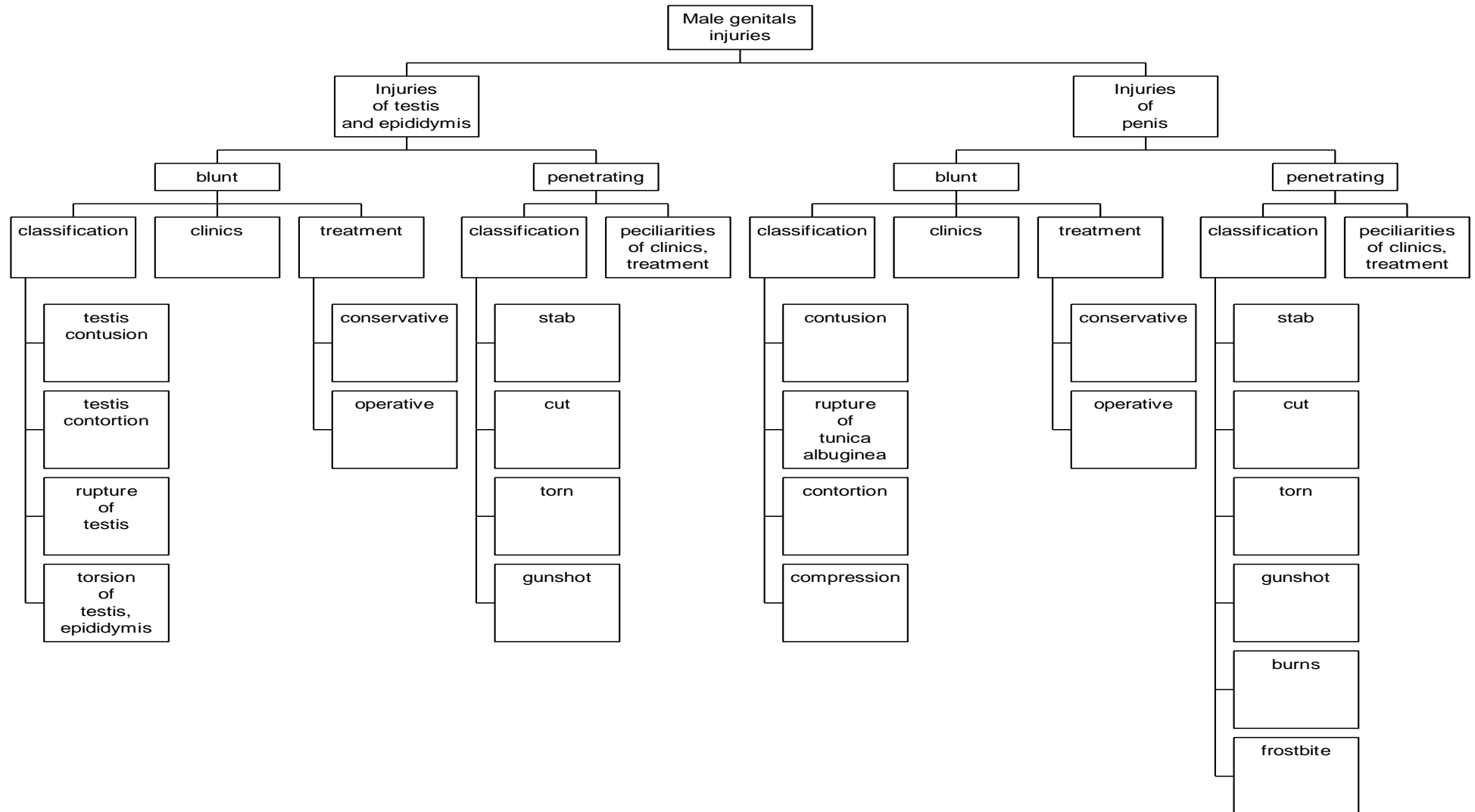




## Structural and logical scheme of lecture



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