

To the Chairman of the Scientific Jury  
according to Protocol from Faculty Council № 57 / 21.12.2021  
and Order of the Rector № P-109-38 / 20.01.2022  
of the Medical University - Varna

## **REVIEW**

for dissertation for the award of educational and scientific degree "Doctor"  
in the scientific specialty "General Medicine" of Dr. Petar Atanasov Kosev  
Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, Faculty of Medicine, Department of  
General Medicine

On the topic: "Features, diagnostic approach and strategy in the treatment of patients with  
pyonephrosis. Analysis of hospitalized patients for a period of 5 years. "

Supervisor: Prof. Dr. Valentina Hristova Madzhova, Ph.D.

by Assoc. Prof. Dr. Plamen Milchev Chernopolsky, Ph.D.

Faculty of Medicine, Department of Surgical Diseases  
Medical University "Prof. Dr. Paraskev Stoyanov" - Varna

The presented dissertation work of Dr. Petar Kosev is in the form and volume meeting the requirements of the Law for the Development of the Academic Staff in the Republic of Bulgaria (LDASRB), the Regulations for its application and the Regulations of MU - Varna. The dissertation was discussed, accepted, and directed for defense by the Department Council of the Department of General Medicine at MU - Varna.

**Biographical data and career development:** Dr. Petar Atanasov Kosev was born in 1984 and graduated in 2003 from the High School of Mathematics "Dr. Petar Beron" - Varna. In 2009 he graduated from the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, specialty "Medicine". He acquired a narrow specialty in Urology in 2016, and since 2015 he has been elected an assistant at the Department of General Medicine, Faculty of Medicine at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna. He started working in 2010 as an intern in the



Clinic of Nephrology - Transplantation Department at the University Hospital "St. Marina" EAD - Varna, and later in the same year specialized and worked until 2018 in the Clinic of Urology at the same hospital under the direction of Prof. Dr. Alexander Hinev. Since 2018 he has been working as a urologist at the Clinic of Urology at MHAT "St. Anna" AD - Varna under the supervision of Assoc. Prof. Dr. Tosho Ganev. He is a member of BMA, European and Bulgarian Urological Association, European Academy of Teachers in General Practice and Family Medicine (EURACT). He speaks English, Russian, Italian, and German.

**Assessment of the topicality of the topic:** The dissertation of Dr. Petar Kosev treats a topical and important practical problem of interdisciplinary importance, covering pre-hospital and hospital care. From a surgical point of view, a late diagnosis is always a serious challenge in choosing a treatment. Based on the obtained results, Dr. Petar Kosev prepares a diagnostic-therapeutic algorithm for behavior in patients with pyonephrosis having real application in clinical practice.

**Volume and structure:** The dissertation of Dr. Petar Kosev is written on 127 pages, illustrated with 36 figures, 41 tables and 1 appendix. The bibliographic list is represented by 180 sources, of which 17 are in Cyrillic and 192 in Latin.

**Research methodology:** The dissertation is the main goal - "to study and analyze the methods of diagnosis and treatment of patients with pyonephrosis, and to develop an algorithm for behavior in support of hospital and pre-hospital medical practice."

For the optimal solution of the main goal the author has defined 6 tasks are well formulated and the development of the dissertation follows their logical solution.

As an object of the dissertation development, the dissertation student performed a retrospective analysis of 166 patients with pyonephrosis, who were hospitalized and treated at the Clinic of Urology of MHAT "St. Anna" AD, Varna from 2016 to 2020. The patients are divided into two groups. With surgical treatment performed as a matter of urgency, by performing a nephrectomy and / or open drainage and nephrostomy patients. Persons under 18 years of age, pregnancy and concomitant oncological pathology are excluded from the development.

**Methods of analysis:** The clinical picture of the disease (duration of complaints, history of previous urinary tract infections and hospital stay), laboratory tests (leukocyte counts,



hemoglobin, and CRP values), urine tests (plain urine and microbiology), imaging tests were considered (CT and ECHO), frequency of concomitant diseases, as well as pathomorphological diagnosis after surgical treatment. To interpret the obtained data, the dissertation used statistical analysis.

**Results obtained:** They are well presented textually and graphically illustrated by 41 tables and 36 figures. The statistical processing used is adequate, which makes the discussion in-depth and well systematized. It is in this chapter that the good awareness and rich clinical experience of the dissertation, as well as his ability to critically analyze the results obtained.

**Conclusions:** The conclusions of the dissertation, on the topic of research, are 10 in number and are based on the overall analysis of information on the literature review, clinical material, analysis, and discussion of their own results. They are well worded and reflective a significant part of the analyzed sections. They have scientific and applied-practical value.

**Contributions:** The contributions from the dissertation, presented by Dr. Petar Kosev, are 9, which are of scientific, scientific-applied, and confirmatory nature.

**Conclusion:** I believe that the dissertation of Dr. Petar Atanasov Kosev "Features, diagnostic approach and strategy in the treatment of patients with pyonephrosis. Analysis of hospitalized patients for a 5-year period "is complete, in-depth, modern, well-formed and properly structured. The tasks are clearly, precisely, and comprehensively formulated and completed. The conclusions, contributions, as well as the proposed algorithm will help the hospital and pre-hospital practice. The dissertation has provided all the necessary documents that meet the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria and the Regulations for the Development of the Academic Staff of MU - Varna for the award of the degree "Doctor".

All this gives me reason to firmly recommend to the esteemed members of the NJ to vote in favor and to award of Dr. Petar Atanasov Kosev the educational and scientific degree "Doctor" in the scientific specialty General Medicine.

**January 24, 2022.**

**Varna**

**Sincerely,**

Assoc. Prof. Dr.  Plamen Milchev Chernopolsky, Ph.D.