To the President of the Scientific Jury

Determined by Order № P-109-408/27.09.2023

Of the Rector of MU- Varna

## Statement

By Assoc. prof. dr. Vasil Markov Bozhkov MD, PhD

Head of ES "Abdominal Surgery "Department of Surgical Diseases Medical
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Varna

Subject: dissertation of Dr. Doychin Georgiev Nikolov

for awarding educational and scientific degree "DOCTOR"

with topic "Challenges for hospital urological practice in the context of the Covid-19 pandemic "

Supervisors: Prof. Dr. Dejan Anakiewski, MD PhD,

Assoc. prof. Dr. Nikolay Evtimov, MD PhD

The dissertation work is written in 126 standard typewritten pages, includes eight chapters: Literature Review, Purpose, Tasks, Material and Methods, Diagnosis, Results and Discussion. It is illustrated with 25 tables and 40 figures. The bibliography includes 190 literary sources, of which 16 in Cyrillic and 174 in Latin.

The literature review occupies 39 pages. In it, the dissertant presents the emergence of SARS – Covid 19, epidemiology, pathophysiology, clinical manifestations and the consequences of the pandemic on urological practice. Divides this practice in kidney transplantology, oncourology, benign diseases, endoscopic and laparoscopic and robot – assisted operations.

The dissertant has a clearly defined goal: To study and analyze the challenges of the impact of the COVID-19 pandemic on hospitalizations and operational activities in hospital urological practice by proposing an algorithm for behavior after prioritizing patients with various urological diseases.

To achieve this goal, six tasks have been formulated and the development of the dissertation follows their implementation.

Dr. Nikolov has a retrospective analysis of 7024 hospitalizations for the period 2018-2021, at the Clinic for Urology at the University Hospital "Sveta Marina" – gr. Varna.

The dissertant solves the assigned tasks, evaluates the order, the choice of anesthesia and the duration of surgical interventions before and in the course of the Covid-19 pandemic. He analyzes the impact of the COVID-19 pandemic on therapeutic procedures in patients with malignant urological diseases, urolithiasis and other benign urological diseases. An analysis of the impact of age and concomitant diseases on patients' hospital stay has been prepared before and in the course of the COVID-19 pandemic.

The dissertation logically ends with a preposition for diagnostic and therapeutic algorithm, consistent with the health system of our country and suitable to serve as a model in a future epidemic situation of a similar nature.

The number of patients presented is sufficient and makes it possible to carry out a statistically reliable analysis. Statistical grouping of data, descriptive (descriptive) methods, analysis of structures, statistical verification of hypotheses, correlation and regression analyses were applied.

The dissertant divides its material into two time periods 2018 – 13.03.2020 and 14.03.2021. The patients in the first period were 4487 and in the second 2782. It marks a decrease of 38% in patients, which is due to the combination of measures and factors on the part of both the health system and the patient, as well as a decrease in operations, which is 23.46% from the previous period. Dr. Nikolov also divides patients according to the type of hospitalization – planned or urgent. It is noteworthy that in the first period before the pandemic, 3.194 operations were performed and 1,601 during the pandemic, which is actually almost double less.

At the same time, there is an increase of 18% in patients who have undergone emergency surgery. The dissertant objectively indicates the reasons for delaying the surgical interventions, which are generally related to: lack of accessible operating rooms due to the presence of other emergencies, PCR testing – at the beginning of the pandemic, the finished result is announced at the 24th hour, delays in other diagnostic procedures, need to prepare the operating room itself and the surgical team to ensure the safety and effectiveness of the operation.

In the course of the discussion, the dissertant also presented an algorithm for diagnostics and treatment of patients with urological pathology in the conditions of a Covid 19 pandemic.

The conclusions are seven and they are a summary of the entire development and correspond to the set goal and tasks.

Д-Dr. Doychin Nikolov graduated the Medical University of Varna in 2017. Since 2017 has been appointed as a doctor-intern at the Urology Clinic of the University Hospital "St. Marina" - Varna, and since 2018. Became Assistant Professor at the ES of Urology at the Department of Surgical Diseases. The dissertation was discussed, accepted and directed for protection by the Department of Surgical Diseases and approved by the Faculty Council of the FM at the Medical University – Varna.

The dissertation of Dr. Doychin Nikolov is of high scientific and practical value, in form and volume meeting all the requirements of the ZRASRB, the Rules for its application and the Rules of the Medical University - Varna

The dissertation contains scientific-practical results and has its practical value.

I recommend to the venerable Scientific Jury to award to Dr. Doychin Georgiev Nikolov the educational and scientific degree "DOCTOR"

Varna

Ass. Prof. Dr. Vasil Bozhkov MD