

To the Chairperson of the Scientific Jury
According to Protocol FS № 46/29.09.2025
and Order № R-109-401/30.09.2025
of the Rector of Medical University – Varna

OPINION STATEMENT

on the doctoral dissertation for awarding the educational and scientific degree of
“Doctor” in the scientific specialty of **Nephrology** to **Alexandra Borislavova Stavreva,**
MD, Medical University “Prof. Dr. Paraskev Stoyanov” – Varna, Faculty of Medicine,
Department of “Second Department of Internal Medicine”

on the topic:

“Analysis and Assessment of Psychological Factors in Patients with Chronic Kidney
Disease in Predialysis and Dialysis Stages”

by **Assoc. Prof. Dr. Alexander Ivanov Osichenko, MD**,
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Chronic kidney disease (CKD) represents one of the major public health challenges worldwide. A particularly critical period in the lives of CKD patients is the transition to end-stage renal disease and the initiation of dialysis treatment. This period involves difficult decisions for patients and is often accompanied by significant clinical burden and mortality. In addition to managing uremic conditions and comorbidities, patients must cope with psychological states influenced by various socio-economic factors, which may subsequently lead to disorders such as depression and anxiety.

This highlights the relevance of the presented doctoral dissertation by Dr. Alexandra Borislavova Stavreva, who aims to analyze the manifestation of psychological factors in CKD patients in predialysis and dialysis stages, as well as to assess their impact on psycho-emotional status and survival in patients undergoing hemodialysis (HD) treatment.

To achieve the stated goal, **eight main tasks** were clearly and precisely formulated. The hypothesis is that patients in the predialysis stage of CKD are predisposed to lower levels of stress, depressive experiences, and anxiety compared to patients undergoing chronic dialysis treatment.

The dissertation consists of **122 standard pages**, illustrated with **12 tables, 10 figures, and 4 appendices**. The literature review includes **213 references**, of which 2 are in Cyrillic and 211 in Latin. Dr. Stavreva demonstrates a thorough understanding of the problem and presents a creative evaluation of the analyzed literature.

The dissertation covers a **prospective, non-interventional, single-center clinical study** (March 2024 – April 2025). **90 patients** were monitored, divided into two groups: 1) 30 patients in the predialysis stage of CKD, and 2) 60 patients undergoing chronic dialysis treatment. Inclusion and exclusion criteria were clearly defined. The research methodology includes documentary and sociological methods. Statistical analysis was performed using SPSS v.20, and the results are presented in tabular and graphical formats.

The results were interpreted in depth and compared with published literature. Key findings include: 1) Higher stress levels among patients undergoing HD compared to predialysis patients. 2) Significantly higher levels of depressive experiences in dialysis-dependent patients compared to CKD patients. 3) Predialysis patients reported significantly higher levels of social support compared to the HD group. 4) In CKD patients, stress, nervousness, and tension correlated strongly with lack of control over events and among themselves. 5) In end-stage CKD patients, significant correlations were observed between stress manifestations (stress perception, tension, nervousness, difficulty coping with tasks) and lack of control over events. 6) In HD patients, stronger positive correlations were observed between anxiety, decreased interest in tasks, fatigue, poor concentration, restlessness, and feelings of uselessness. 7) In CKD patients, a stronger proportional relationship was found between social support indicators (performing daily activities, recreation, family and friend support, absence of social isolation, and employment). 8) No statistically significant results were observed between perceived stress, social support, depressive experiences, and survival in dialysis-dependent patients, except that higher levels of anxiety were associated with reduced survival.

Original contributions of the dissertation: 1) First-time comparison of psychological factors – stress, depressive experiences, and social support – between predialysis and dialysis-stage CKD patients. 2) First-time study of the relationships between perceived stress, depressive experiences, and social support in predialysis and dialysis-stage CKD patients. 3) First-time evaluation in Bulgaria of the significance of stress, depressive

experiences, and social support in patients undergoing regular HD treatment and their impact on survival.

Practical-applied contributions: 1) Development of an algorithm for prevention, treatment, and monitoring of CKD and dialysis patients. 2) Implementation of detailed educational programs for preventing psychological conditions affecting patients' psycho-emotional status during CKD staging and initiation of HD treatment. 3) Implementation of programs and psycho-emotional screening for HD patients and their families, especially in the initial months after treatment initiation, to reduce the risk of psychological disorders requiring a multidisciplinary approach.

Dr. Stavreva has **four publications** in scientific journals related to her dissertation topic. The submitted materials comply with the **Law on the Development of the Academic Staff of the Republic of Bulgaria** and the **Regulations of Medical University – Varna** for awarding the scientific degree of Doctor.

In conclusion, I consider Dr. Alexandra Borislavova Stavreva's dissertation to be **complete, contemporary, in-depth, well-structured, and properly formatted**, with clearly formulated and accomplished objectives, as well as well-defined conclusions and contributions to both science and practice. Based on this, I recommend that the esteemed scientific jury award Dr. Alexandra Borislavova Stavreva the educational and scientific degree of **Doctor** in the scientific specialty of **Nephrology**, professional field 7.1 Medicine, within the higher education area 7 Health and Sports.

Sofia, 25.10.2025

Assoc. Prof.

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