

STATEMENT

on a dissertation thesis entitled:

“MODERN SURGICAL APPROACHES IN MALIGNANT DISEASES OF THE GASTROINTESTINAL TRACT- CLINICAL AND EPIDEMIOLOGICAL ASPECTS IN NORTHEASTERN BULGARIA”

submitted for the award of the scientific degree **Doctor of Sciences**
in the field of higher education **7. Healthcare and Sports**,
professional field **7.1. Medicine**

by **Prof. Dr. Kostadin Georgiev Angelov, MD, DSc**

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the Medical University – Varna

Relevance of the Study

The relevance of the dissertation is determined by the increasing significance of oncological diseases of the gastrointestinal tract as a major medical and public health concern. Malignant neoplasms of the esophagus, stomach, colon, and rectum constitute a substantial proportion of cancer-related morbidity and mortality both globally and within Bulgaria. Given the high incidence and social impact of these diseases, the investigation of their epidemiological characteristics, diagnostic approaches, and the effectiveness of contemporary treatment modalities represents an important scientific and practical objective.

Particular importance is attributed to the analysis of regional characteristics of gastrointestinal oncological diseases, as variations in demographic structure, lifestyle, risk factors, and access to healthcare services may influence disease incidence, stage at diagnosis, and therapeutic outcomes. In this context, the dissertation focuses on the investigation of clinical and epidemiological aspects of malignant gastrointestinal diseases in Northeastern Bulgaria, as well as on the evaluation of outcomes associated with contemporary surgical approaches in their treatment.

An additional aspect of the study's relevance is the need for an objective assessment of available data on the incidence and management of these diseases. In many cases, inconsistencies and incompleteness in epidemiological data raise concerns regarding the methodology of data collection and interpretation, as well as the role of the institutions responsible for maintaining such data. These limitations hinder the conduct of reliable comparative analyses and the formulation of effective health policies.

The relevance of the topic is further enhanced by the dynamic development of surgical techniques and multidisciplinary approaches in the treatment of gastrointestinal tumors. The introduction of minimally invasive methods, laparoscopic and robotic surgery, as well as novel diagnostic and staging approaches, necessitates a systematic evaluation of their effectiveness and applicability in clinical practice.

In this regard, the dissertation makes a significant contribution to the improved understanding of the epidemiology, clinical characteristics, and therapeutic outcomes of malignant diseases of the gastrointestinal tract. The obtained results may support the optimization of diagnostic and therapeutic processes, the improvement of surgical strategies, and the development of evidence-based policies for the control and management of oncological diseases in Bulgaria.

Significance of the Topic

The topic of the dissertation is of considerable significance from both scientific and practical perspectives, as it addresses important aspects related to the diagnosis, treatment, and epidemiological characteristics of malignant diseases of the gastrointestinal tract. These conditions represent a major medical and social problem due to their high incidence, substantial mortality, and significant impact on patients' quality of life. Globally, as well as in Bulgaria, tumors of the esophagus, stomach, and colorectal region rank among the leading oncological diseases, which necessitates in-depth scientific research aimed at improving early diagnosis, optimizing therapeutic approaches, and increasing patient survival rates.

The significance of the study is further determined by the fact that it analyzes real-world clinical data and outcomes from medical practice, enabling objective conclusions regarding the effectiveness of contemporary surgical and diagnostic methods. Such analysis is of critical importance for assessing the quality of medical care and identifying opportunities for improving the diagnostic and therapeutic process. Furthermore, the study contributes to a better understanding of the factors influencing the development and progression of gastrointestinal oncological diseases.

An additional value of the topic lies in its applicability to healthcare practice and health system management. The results obtained may support the development of more effective strategies for prevention, early detection, and treatment of malignant gastrointestinal diseases. They may also serve as a basis for improving the organization of medical care and for formulating recommendations for clinical practice.

In this regard, the dissertation makes a substantial contribution to the advancement of medical science and practice by providing a systematic analysis of a current health problem and delivering evidence-based information that can be utilized by both clinicians and specialists in public health and healthcare management.

General Characteristics of the Dissertation

The dissertation comprises 248 pages and is illustrated with 3 panels of photographic material, 29 figures, 61 tables, and appendices provided on electronic media. The bibliography includes 1,068 references, cited as follows: 171 sources in the Literature Review, Part I; 33 sources in the Literature Review, Part II; 796 sources used for the preparation of the "PICOS" analysis; and 68 sources distributed across the remaining chapters of the dissertation.

Aims, Objectives, and Methodological Framework

In order to address the research question, Prof. Kostadin Angelov defines the primary objective as an analysis of the clinical and epidemiological aspects of malignant diseases of the gastrointestinal tract in Northeastern Bulgaria, as well as the outcomes of contemporary surgical approaches in their treatment.

To achieve this objective, seven clearly formulated tasks are set, aimed at: conducting an epidemiological study of malignant gastrointestinal diseases in Bulgaria based on literature data; analyzing contemporary surgical approaches for the treatment of malignant gastrointestinal diseases; conducting a second, targeted epidemiological study of malignant gastrointestinal diseases in Northeastern Bulgaria; evaluating clinical aspects through classification and staging of malignant gastrointestinal diseases in Northeastern Bulgaria according to their localization and progression; analyzing contemporary surgical approaches for treatment in Northeastern Bulgaria; assessing loco-regional characteristics and the social significance of malignant gastrointestinal diseases at both micro- and macro-levels; and forecasting major trends in the development of morbidity from malignant gastrointestinal diseases in both the short- and long-term at regional and national levels.

The methodological framework employed in the dissertation comprises a combination of theoretical, empirical, and statistical research methods, enabling the analysis of the effects of contemporary surgical approaches in malignant gastrointestinal diseases.

Primarily, a documentary and literature analysis is applied, through which scientific publications, monographs, clinical guidelines, and official statistical sources related to malignant gastrointestinal diseases are examined. This approach allows for the systematization of existing scientific knowledge, tracing the development of diagnostic and therapeutic methods, and determining the position of the present study within the contemporary scientific literature.

A central component of the methodology is the retrospective analysis of clinical data. The study is based on medical documentation, hospital archives of a university surgical clinic, and patient registries of individuals diagnosed with malignant gastrointestinal diseases. This approach enables analysis of patients' demographic characteristics, disease course, diagnostic methods employed, surgical interventions performed, and achieved therapeutic outcomes.

Epidemiological and comparative methods are also utilized, allowing for assessment of disease incidence, distribution by age and sex, and analysis of developmental trends. These methods provide the basis for drawing well-founded conclusions regarding the distribution and clinical characteristics of gastrointestinal oncological diseases within the studied population.

An essential component of the methodological framework consists of statistical methods for data processing and interpretation. These methods enable quantitative analysis of the collected data, calculation of relative proportions, mean values, and other statistical indicators, allowing for objective evaluation of results and identification of relationships between different factors.

The combined application of these methods provides a reliable scientific basis for the formulation of conclusions and recommendations related to the diagnosis, treatment, and control of malignant diseases of the gastrointestinal tract.

Results Obtained

The results of the conducted study present a comprehensive overview of the incidence, clinical characteristics, and treatment outcomes of malignant diseases of the gastrointestinal tract within the studied population. The analysis of the collected clinical data demonstrates that these diseases constitute a significant proportion of oncological pathology and represent a substantial challenge for contemporary medical practice. A clear association is observed between patient age and disease incidence, with the highest prevalence noted among older age groups.

The obtained results also reveal differences in the distribution of specific localizations of gastrointestinal tumors, with colorectal neoplasms being the most frequent, followed by gastric and esophageal tumors. Analysis of clinical cases indicates that, in a considerable proportion of patients,

the disease is diagnosed at an advanced stage, which significantly influences both the choice of therapeutic strategy and the overall prognosis.

Within the scope of the study, an evaluation of the applied surgical methods and their outcomes has been performed. The data demonstrate that surgical treatment remains the primary therapeutic approach for a substantial proportion of patients, with the selection of the specific operative technique determined by the stage of the disease, tumor localization, and the patient's general condition. The analysis of postoperative outcomes allows for an assessment of the effectiveness of the surgical methods employed and the identification of factors influencing clinical outcomes.

The results obtained contribute to a better understanding of the epidemiological characteristics and clinical course of gastrointestinal oncological diseases. They provide evidence-based information that may be used to improve diagnostic and therapeutic approaches, as well as to enhance the organization of medical care for patients with this group of diseases.

Conclusions and Contributions

The author presents conclusions formulated after each of the main sections of the results, representing a logical culmination of the conducted research.

Numerous contributions are identified and appropriately classified into distinct categories: original contributions, contributions of scientific-theoretical and scientific-applied nature, as well as those of a confirmatory character. The dissertation would have benefited further if, based on the conclusions and contributions, specific recommendations had been formulated and addressed to relevant institutions involved in the field.

Scientific Publications

In relation to the dissertation, a total of 15 publications have been prepared, in the majority of which Prof. K. Angelov is the first author. Eleven of these publications are published in journals indexed in **Web of Science** and/or **Scopus**.

Abstract

The abstract fully reflects the achievements of Prof. K. Angelov, accurately synthesizes the content of the dissertation, and is entirely compliant with the requirements of the **Law on the Development of the Academic Staff in the Republic of Bulgaria**, its implementing regulations, and the internal regulations of the Medical University – Varna for the award of the scientific degree **Doctor of Sciences**.

Biographical Data

Prof. Kostadin Angelov was born on June 7, 1977, in the city of Sliven. He graduated from the Medical University- Sofia with a Master's degree in Medicine in 2004 and a Master's degree in Public Health and Health Management in 2006. He began working at the University Hospital "Alexandrovska" EAD as an orderly in 2000, and in 2005 he won a competitive position as a surgical resident. His medical career began in the Emergency Department (Shock Room) of Emergency Medical Services- Sofia as a resident physician. In 2006, he was appointed as an Assistant Professor at the Department of Surgery, Faculty of Medicine, Medical University- Sofia. In 2010, he obtained his specialty in surgery. From 2006 to 2011, he served as Head of Educational Activities at the Department of Surgery, and from 2008 to 2011 as Chief Administrative Physician of the Surgical Clinic at University Hospital "Alexandrovska"- Sofia. Since 2006, he has been a volunteer with the Bulgarian Red Cross and an instructor in first aid, and between 2009 and 2012 he was a member of the Sofia Council of the Bulgarian Red Cross. In 2013, he was appointed Executive Director of University Hospital "Alexandrovska" EAD, a position he held until 2020. In 2014, he defended a doctoral dissertation for the educational and scientific degree "Doctor" in Surgery on the topic: *"Optimization of the Surgical Approach and Lymph Node Dissection in Patients with Gastric Cancer."* In 2015, he obtained a Master's degree in Finance from the University of National and World Economy, was elected Associate Professor the same year, and Professor in 2020. Between 2014 and 2020, Prof. Angelov held numerous positions, including: member of the Board of the Association of University Hospitals for Active Treatment in Bulgaria; member of the Faculty Council and Academic Council of Medical University - Sofia; Secretary and later Editor-in-Chief of the journal *Surgery* (official organ of the Bulgarian Surgical Society); Chief Secretary of the Bulgarian Surgical Society; member of the State Examination Commission in Surgery; advisor to the Parliamentary Committee on Healthcare; and Chief Coordinator of the Expert Council in Surgery at the Ministry of Health.

In 2020, he was elected Minister of Health by the National Assembly, serving until May 2021. Since then, he has been a Member of Parliament, Deputy Chair and Chair of the Parliamentary Committee on Healthcare, and currently Deputy Chair of the National Assembly.

As an academic lecturer, he has delivered numerous lectures in surgery to medical students, dental students, interns, residents, and PhD candidates. He has published extensively in Bulgarian and international journals indexed in major scientific databases. In 2012, he was awarded "Best Lecturer" by the graduating class of medical students, and in 2015 received the "Prof. Dr. Parashkev Stoyanov" award for excellence in medical science and teaching. He has supervised doctoral candidates and residents, authored numerous reviews and expert opinions in academic competitions, and his scientific work is indexed in Web of Science, Scopus, ResearchGate, and Google Scholar. He has 24 publications in journals with an impact factor, and his citations range from 515 to over 10,000 across databases. Prof. Angelov is a member of the Bulgarian Surgical Society, the Bulgarian Medical Association, the International Gastric Cancer Association (IGCA), the International Society of Surgery (ISS), and the European Society for Medical Oncology (ESMO).

He has received numerous awards, including: Distinguished Contributor of the Bulgarian Red Cross; "Physician of the Year" (2018) in the category of Medical Management; Gold Medal of the Bulgarian Red Cross; award from the Bulgarian Association of Healthcare Professionals for contribution to healthcare development; and "Person of the Year 2020" by the National Association for Spinal Muscular Atrophy, among others.

Conclusion

I positively evaluate the presented dissertation. The basis for this assessment lies in the relevance of the topic, the significance of the stated objective, the successful fulfillment of the set tasks, the application of contemporary methodological approaches, and the results obtained. The dissertation of Prof. Kostadin Angelov demonstrates the author's competence, as well as his profound and sustained scientific and practical interest in the field of malignant diseases of the gastrointestinal tract. The dissertation meets all requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, its implementing regulations, and the internal regulations of the Medical University – Varna.

I have known and worked with Prof. Angelov since the earliest stages of his surgical career. He embodies exceptional professionalism, responsibility, and full dedication to his work, as well as the qualities of a modern leader of the highest caliber. It is a source of personal professional pride for

me to have contributed to his professional and academic development over the years. His qualities as a teacher and scientist are indisputable, and this dissertation is yet another testament to them. Based on these qualities, I feel confident and optimistic about the future of Bulgarian surgery and medical science.

Based on the above considerations, I strongly recommend that the esteemed members of the jury highly evaluate the dissertation and vote in favor of awarding the scientific degree **Doctor of Sciences** to Prof. Kostadin Georgiev Angelov.

Sofia

31 March 2026

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