

**TO THE CHAIRMAN OF THE SCIENTIFIC JURY
APPOINTED BY ORDER No. R-109-314/21.07.2025
OF THE RECTOR OF THE MEDICAL UNIVERSITY
"PROF. DR. PARASKEV STOYANOV"
VARNA**

OPINION

**by Assoc. Prof. Maria Nikolaeva Panteleva-Popova, MD, PhD
Department of Disaster Medicine and Maritime Medicine,
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Regarding: Dissertation Thesis on the topic "Preparedness for protection and response of medical facilities in the Varna region in case of natural and man-made hazards" by Dr. Yassen Georgiev, MD, full-time doctoral student, for the obtaining of an educational and scientific degree of "Doctor/PhD" in the field of higher education 7. Health and Sports, professional field 7.1. Medicine, specialty in "Disaster Medicine".

According to Decision No. 247/17.07.2025 of the Faculty Council meeting and Report No. 104-1061/21.07.2025 by Prof. Teodora Dimitrova, Dean of the Faculty of Public Health, I have been elected as an Internal member of the Scientific Jury (SJ) appointed pursuant to Order No. P-109-314/21.07.2025 of the Rector of MU "Prof. Dr. Paraskev Stoyanov" – Varna, under the procedure for public defense of a dissertation for the acquisition of an educational and scientific degree "Doctor" with candidate Dr. Yassen Georgiev, MD. By Protocol No. 1/25.07.2025 of the meeting of the SJ, I have been appointed to prepare an opinion on the procedure.

The procedure documents provided by the doctoral student are in compliance with the Law for Development of the Academic Staff of the Republic of Bulgaria (LDASRB), the Regulations for implementation of the Law for development of academic staff in the Republic of Bulgaria (RILDASRB), and the Rules for the Development of the Academic Staff at the Medical University - Varna (RDAS-MU-Varna) regarding the procedure for acquiring the educational and scientific degree of "Doctor".

Brief information about the doctoral student

The doctoral student Yassen Georgiev, MD, was born on May 9, 1994, in Varna. He graduated from the "A. S. Pushkin" Language Secondary School in Varna in 2013. He graduated as a doctor in 2019 from the Medical University of Varna. Since 2020, he has been an Assistant Professor with the Department of Disaster Medicine and Maritime Medicine at the Medical University of Varna. In 2020, he was enrolled as a full-time doctoral student in Disaster Medicine under the supervision of Prof. Krasimir Gigov, MD, PhD, and Assoc. Prof. Nikolina Radeva, PhD. Also, since 2020, Dr. Yassen Georgiev has been specializing in "Disaster Medicine (Catastrophes)".

He has participated in the Black Sea Symposium for Young Scientists in the Field of Biomedicine, in several Scientific Conferences of the Bulgarian Scientific Society of Public Health, and in all editions of the Sea and Health Festival since 2021.

He participates in project No:24025 "Application of geographic information systems for assessing health inequalities in Bulgaria".

He took part as a representative of MU-Varna in the National Naval Forum "BREEZE" in 2021, 2022 and 2023.

As a doctoral student, he participated in courses to improve his qualifications:

- "Digital Skills (intensive training) under project BG05M2OP001-2.016-0025"
- "Disaster Response and Consequence Management for Radiological Incident Course, CMDR COE – 2025 – at the NATO Crisis Management and Disaster Response Center.
- "Instructor Training" – at the University Center for Maritime Health, certificate from the Executive Agency "Maritime Administration"
- "Assessment, Examination, and Certification of Seafarers" – at the University Center for Maritime Health, certificate from the Executive Agency "Maritime Administration".

He is fluent in English and Russian, which he uses freely in his professional activities, and has an intermediate level of German.

He is a member of the Bulgarian Medical Association (BMA) and the Bulgarian Scientific Society of Public Health (BSSPH).

Characteristics and evaluation of the dissertation

1. Content and structure of the dissertation

The dissertation on the topic of "Preparedness for protection and response of medical facilities in the Varna region in the event of natural and man-made hazards," developed by Dr. Yasen Georgiev and presented to me, is written in clear, scientific language and is grammatically sound. Its volume and format comply with the requirements of Article 27, paragraph 2 of the Regulations for implementation of the Law for development of academic staff in the Republic of Bulgaria (RILDASRB), and the requirements for the ratio between the individual sections have been met.

- The dissertation is structured on 150 pages as follows:
- - Introduction – 2 pages;
- - Literature review – 40 pages;
- - Purpose, objectives, materials, and methods – 8 pages;
- - Own research in five chapters – 60 pages;
- - General conclusions – 2 pages;
- - Summary of scientific contributions – 2 pages;
- - Bibliography – 10 pages;
- - Appendices – 20 pages;
- - Scientific publications on the topic – 1 page;

The literature review is sufficient in scope. The bibliography shows that the candidate has used 156 literary sources, 12 of which are in Cyrillic. The selection of the cited literature demonstrates an in-depth examination of the problem. Of the sources included in the literature, 65 are from the last 10 years (5 in Cyrillic and 60 in Latin). This indicates the relevance of the scientific data and studies cited.

The illustrations are detailed. The statements in the dissertation are supported by 18 tables, 4 figures, 2 graphs, and 5 appendices.

2. Relevance and necessity of the dissertation

The problem addressed in the dissertation is extremely topical.

The number of natural and anthropogenic disasters worldwide has been increasing in recent years, as has the number of people affected. This increases the importance of preparedness for protection and response to disasters in healthcare facilities in situations where there are large numbers of casualties.

In this context, the development of comprehensive disaster management plans for healthcare facilities, which identify potential risks, outline disaster response procedures, and ensure the availability of appropriate resources, including personnel, consumables, and equipment, is of paramount importance for a more favourable outcome in these situations. Attention is also paid to the vulnerability of healthcare facilities. Dr. Georgiev's dissertation highlights the need to increase their preparedness to respond to disaster situations and provides specific recommendations in this regard.

3. Assessment of the dissertation

The presented dissertation is written in a consistent academic style. The author demonstrates excellent abilities to formulate, present, and summarize a significant amount of scientific information. He analyzes the literary sources, adapting the data and conclusions to the needs of the dissertation's goals and objectives. The content and structure are excellently developed.

The aim of the dissertation is well formulated and sounds relevant – to study the preparedness and response of healthcare facilities in the Varna region in case of natural and man-made hazards, to propose measures to increase their resilience and to reduce the risk.

To achieve this goal, the doctoral student has set five research tasks. They are well chosen, thoroughly developed, and extremely useful for proving the main thesis. The tasks cover all the main aspects of the topic under consideration.

The methods and analytical tools applied aim to fulfill the scientific tasks set, focusing on individual aspects of the phenomena studied, and their comprehensive use allows for the study of the object in its wholeness in order to achieve the goal of the dissertation. The research tasks were achieved using qualitative data from in-depth interviews with open-ended questions, approved by the Scientific Research Commission (SRC) with protocol number: 134 of 20.06.2023.

- The author's own research is presented in five separate chapters, which address key aspects of the problem.
- The first chapter examines, analyzes, and assesses the existing natural and anthropogenic hazards in the Republic of Bulgaria. Attention is paid to the most likely disasters and their main characteristics.
- The second chapter is devoted to the different types of hospital care facilities in Varna and the Varna region. Special attention is paid to three medical institutions: UMBAL "Sv. Marina" EAD, MBAL-Varna "Military Medical Academy" and MBAL "Tsarina Yoanna-Provadia" EOOD, Provadia.
- Chapter 3 examines the preparedness of healthcare facilities in Varna and the Varna region to protect and respond to natural and man-made disasters.
- Chapter 4 provides an assessment of the capacity of hospitals in Varna and the Varna region to reduce the risk of natural and man-made hazards.
- Chapter 5 sets out the measures proposed by the doctoral student to improve the preparedness for protection and effective and timely response to disasters of hospitals in the Varna region.

Each of these studies is well structured. The results are illustrated with numerous tables and figures. This makes them convincing. In my opinion, they are of considerable originality and are the personal work of the doctoral student. The author's own studies included in the dissertation contribute to illustrating the problems and challenges in disaster situations. Particularly valuable is the study of the preparedness of hospitals in Varna and the Varna region to protect and respond to natural and anthropogenic disasters. A questionnaire was used to conduct in-depth interviews, with questions adapted based on a World Health Organization document (Hospital emergency response checklist. An all-hazards tool for hospital administrators and emergency managers). A combination of qualitative analysis of the content of the responses provided and the personal opinions and recommendations of the interviewees was carried out.

4. General conclusions and scientific contributions of the dissertation

The conclusions in the presented dissertation are well formulated. The results obtained lead to consequent and logical conclusions. With their help, the author proves the achievement of the set goal. Doctoral student Dr. Yasen Georgiev has presented six scientific and theoretical contributions of the dissertation and has formulated five scientific and applied ones. I believe that these contributions are extremely important. In my opinion, the model created for assessing the preparedness of hospitals in the Varna region, including key indicators for structural stability, resource provision, and

organizational readiness, as well as the prepared checklist for self-assessment of the disaster preparedness of hospitals, which helps managers identify critical weaknesses and prioritize improvement measures.

The current dissertation is a complete scientific work by a researcher in the field of disaster medicine. I believe it fully meets the criteria for obtaining a "Doctor" degree, in accordance with the Law for Development of the Academic Staff of the Republic of Bulgaria (LDASRB).

5. Critical comments and recommendations

I have no significant comments or recommendations regarding the dissertation. I find that the dissertation, with its achievements and contributions, is the result of systematic scientific research carried out by the doctoral student in a purposeful and thorough manner. Upon careful reading, I found no evidence of incorrect citation of foreign sources or plagiarism.

Conclusion

The dissertation presented by Dr. Yassen Georgiev is devoted to an extremely important scientific and practical problem - increasing the preparedness of medical institutions for hospital care in Varna and the Varna region for protection and response to natural and anthropogenic disasters. The topic is relevant and dissertable. The results are convincing, and the conclusions are clearly and accurately formulated. The author is well-prepared theoretically and has accumulated practical experience. I consider him to be an established specialist, researcher, and lecturer, possessing undoubted professional qualities and academic potential.

I believe that the dissertation thesis "Preparedness for protection and response of medical facilities in the Varna region at risk of natural and anthropogenic disasters" meets the requirements of the Law for Development of the Academic Staff of the Republic of Bulgaria (LDASRB), its implementing Regulations, and the Regulations of MU-Varna for the obtaining of a doctoral degree in the specialty of "Disaster Medicine."

Based on the analysis of the documentation provided to me regarding the procedure and its compliance with the Law for Development of the Academic Staff of the Republic of Bulgaria (LDASRB), I give a positive assessment of the dissertation of Dr. Yassen Georgiev.

Therefore, I propose that the Honourable Scientific Jury awards Yassen Georgiev, MD, the academic degree of "Doctor" in the doctoral program "Disaster Medicine" in the field of higher education 7. Healthcare and Sports, professional direction 7.1. Medicine, specialty "Disaster Medicine".

Заличено на основание чл. 5,
§1, б. „В“ от Регламент (ЕС)
2016/679

Opinion prepared

/Assoc. Prof. Maria Panteleeva, MD, PhD/

1.09.2025
Varna