

OPINION

by Prof. Stela Lyudmilova Georgieva, MD, PhD
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Regarding Dissertation on the topic:
**"SURVEILLANCE AND CONTROL OF HEALTHCARE-ASSOCIATED
INFECTIONS – MODERN CHALLENGES"**

for awarding educational and scientific degree "Doctor"

in Higher Education Field 7. Health care and sport
Professional Field 7. 4. Public Health
PhD Program „Public Health Management“

with candidate: Deyana Ivanova Ilieva

In view of protocol No. 1/ 16.25 of the meeting of the Scientific Jury, determined by **order No. R-109-503/10.12.2025** of the Rector of the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, Prof. Dr. Dimitar Raykov, MD, D.Sc, on the basis of Art. 258-269 of the ZZD, I have been appointed to present an opinion on the procedure for acquiring the educational and scientific degree "Doctor", to Asst. Deyana Ivanova Ilieva, full-time PhD student at the Medical University - Varna, Faculty of Public Health, Department of Social Medicine and Organization of Healthcare, with scientific supervisors Prof. Dr. Desislava Ivanova Vankova, MD, D.Sc and Prof. Dr. Tsonko Paunov Paunov, MD, PhD.

Career development of the PhD student

PhD student Deyana Ivanova Ilieva graduated in 2002 from the Medical University of Varna with a "Specialist" qualification, majoring in "Sanitary Inspector". In the period 2004-2009, she successively obtained a bachelor's and master's degree in "Business Management" with specializations in Health Management and Marketing and Management at Burgas State University "Prof. Dr. Asen Zlatarov". She continues her education with a master's degree in Public Health Protection and Control at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, and since 2020 she has been enrolled in full-time doctoral studies at the Department of "Social Medicine and Healthcare Organization" at the same educational institution. He gained his professional experience as a Sanitary Inspector at the Regional Health Institute - Varna (2006-2007), Public Health Inspector at the University Hospital "St. Marina" EAD (2007 to the present) and Manager of disinfection, disinsection and deratization activities at Bulgarco OOD (2022 to the present). Since 2023, he has also held the position of "Assistant" at the Medical College - Varna. Her affinity to scientific and research work finds expression in participation to scientific conferences and a number of scientific publications. This is also reflected in her enrollment in and development of a dissertation on a topic relevant to her educational and professional field.

Assessment of the dissertation work

General characteristics

The dissertation was written on 175 standard typewritten pages and illustrated by 15 tables, 48 figures and one appendix.

The bibliographic reference includes 300 literary sources, of which 14 are in Cyrillic and 286 in Latin.

The abstract was presented on 92 pages and reflects well the content of the dissertation work.

Relevance of the topic

The relevance of the dissertation's topic is undeniable. Drug resistance and the associated emergence of hospital-acquired, nosocomial, or the recently used term "healthcare-associated infections" (HAI), have been ranked by the World Health Organization among the 10 most pressing public health problems of the last decade. They pose a serious challenge to national health systems and can be associated with:

- ✓ significant and difficult to measure economic damage due to prolonged hospital stays, the need of longer and more intensive care and the use of expensive antibiotics to control them;
- ✓ impact on the general health status of the affected individuals, their working capacity and quality of life;
- ✓ reduced public trust in health professionals, medical institutions and public health in general.

As highlighted in the paper, effective prevention and control are crucial to preventing the occurrence of HAI and constitute an integral part of modern, effective, high-quality and safe provision of healthcare services. This requires the implementation of specific control measures and systematic supervision by qualified health personnel in the relevant field (hospital epidemiologist, health care specialist, etc.). In this sense, in-depth scientific studies in this direction are a valuable source of information for identifying epidemics and endemic outbreaks, assessing the effectiveness of control measures, preventing wrong practices, implementing appropriate activities, planning resources, implementing recommendations, and overall improving healthcare.

Quality assessment of the dissertation work

The literature review constitutes about 1/3 of the total volume of the dissertation work. Based on a significant number of literary sources (300) in Cyrillic and Latin, in a scientific and at the same time easy-to-read style, a thorough analysis of the problem of "HAI" has been made, both in a historical aspect and as a challenge to the process of treatment and provision of health care in modern healthcare. Of interest in a theoretical and practical aspect is the presented comparison of HAI in Europe and Bulgaria with an emphasis on the frequency, etiology, localization, source of infection and mechanisms of its transmission. Of significant benefit is the systematization of risk factors and characteristics of susceptible individuals, which contributes to the offer of preventive measures, as well as adequate package care in case of such infection. In addition, being well structured, the literature review ends with a brief summary of the main information, which facilitates its perception and comprehension.

The goal of the study was clearly formulated. It was supported by specific tasks contributing to its achievement, and working hypotheses have been formulated to clarify the connections and dependencies between the variables under consideration.

The methodology shows a ten-year retrospective study (2013-2022), ambitious in scope, representativeness and multi-layeredness. In compliance with the ethical principles of scientific research, multiple sources of information were used, including specialized scientific literature, national regulatory documents, in-hospital programs of the technical monitoring unit - University Hospital "St. Marina" - Varna, medical documentation of patients and a number of others. The diversity and detailed description of the methods used is impressive.

The results were presented in a good logical sequence, competently discussed and richly illustrated. The figures and tables are informative and clearly demonstrate the emerging trends. Statistically significant relationships between some variables have been established, which helps to confirm the hypotheses of the study and can serve to justify preventive activities and therapeutic behavior.

Notes and recommendations

The Dissertation **meets the requirements in terms of volume and structure, and no significant weaknesses are found** in it.

I recommend:

1. The results of the study should be widely disseminated through the publication of a monograph and articles in scientific journals.
2. The recommendations formulated should be addressed to the competent and responsible structures in order to serve to optimize their work.

Conclusion

The PhD thesis of Deyana Ivanova Ilieva is an in-depth complex scientific study of an actual public health problem on a global scale. Innovative approaches and methods in the research practice were applied. The results were competently analyzed, and the considerable amount of information is synthesized into **ten concise and essential conclusions**, accurately reflecting the obtained results. **Well-grounded recommendations** have been made to the interested and competent institutions in our country to reduce the risk and limit the frequency of HAI. I believe that the Dissertation with **theoretical, methodological and practically-applied contributions**, and substantiated scientific evidence for the needs of public health and the health system in our country has been realized. The PhD thesis fully meets the requirements for awarding the educational and scientific degree "Doctor".

I strongly recommend to the Scientific Jury to award the educational and scientific degree "Doctor" to Deyana Ivanova Ilieva on the PhD Program "Public Health Management " in Professional field 7.4. Public health, Higher education field 7. Health care and sports.

27.02.2026 г.

Member of Scientific a jury:

/Prof. S. Georgieva, M.D., Ph.D./

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