

To the President of the Scientific Jury
According to Protocol No. 1/14.01.2025
And Order No. P-109-1/02.01.2025
Of the Rector of Medical University - Varna

STATEMENT

for a dissertation for the award of the degree of Doctor of medicine

Degree in Cardiac Surgery to Dr. Pavlin Lyubenov Manoilov

Medical University - Varna, Faculty of Medicine, Department of Cardiovascular Surgery and
Angiology

"Epidemiology, risk factors and clinical manifestation of wound infections after sternotomy.
Trends for prevention and treatment in the Clinic of Cardiac Surgery."

Scientific supervisor:

Prof. Plamen Panayotov, PhD.

by Assoc. Prof. Dr. Plamen Milchev Chernopolsky, D.Sc

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The presented dissertation work of Dr Pavlin Manoilov is in the form and volume meeting the requirements of the Law for the Development of the Academic Staff in the Republic of Bulgaria (LDASRB), the Regulations for its application and the Regulations of MU - Varna. The dissertation was discussed, accepted, and directed for defense by the Department Council of the Department of Cardiovascular Surgery and Angiology at MU - Varna.

Biographical data and career development: Dr Pavlin Lyubenov Manoilov was born in 1965. In 1991, he graduated from Medical University - Pleven, specialty "Medicine". He obtained a specialty in Surgery in 1999, and in 2018 - a specialty in Cardiac Surgery. Since 2019, he is an

assistant professor of Cardiac Surgery at the Department of Cardiovascular Surgery and Angiology. He is fluent in English and Italian.

Assessment of the topicality of the topic: The dissertation of Dr Pavlin Manoilov deals with an actual and important practical problem related to one of the most common complications after surgical interventions - wound infections. From the surgical point of view, this type of complications is often associated with increased hospital stay, financial costs and increased postoperative mortality. Based on the results obtained, Dr. Pavlin Manoilov implemented the Protocol for the Prevention of Wound Infections by Negative Pressure Wound Therapy (ciNPWT), which is recommended as a preventive measure in all cardiac surgery patients.

Volume and structure: The dissertation of Dr Pavlin Manoilov is written on 133 pages, illustrated with 50 tables, 1 diagram and 24 photos. The bibliographic list is represented by 335 sources, all of which are in Latin. The studies were carried out in the Clinic of Cardiac Surgery of St. Marina University Hospital, Department of Cardiovascular Surgery and Angiology.

Research methodology: The dissertation has as its main goal - "to minimize the risk of chest wall wound infections after cardiac surgery by implementing evidence-based practices and strategies".

For the optimal solution of the main goal, the author has set 7 tasks, which are well formulated and the development of the dissertation follows their logical resolution.

As the subject of the dissertation work, the dissertator has performed a retrospective analysis of a total of 1354 patients in Study 1 - undergoing cardiac surgery performed in the Cardiac Surgery Clinic of St. Marina University Hospital over a 3-year period and a prospective study of 505 patients in Study 2, after median laparotomy in the Cardiac Surgery Clinic over a 1-year period.

Patients were divided into two groups - Target group - Study 1 - consisting of 101 patients who developed wound complications and Study 2 - consisting of 17 patients and Control (reference) group - consisting of 101 consecutive patients with similar health characteristics who underwent the same type of surgery.

The risk factors influencing the occurrence of postoperative wound infection - diabetes mellitus, BMI >25, duration of artificial pulmonary ventilation (APV) in Study 1 were identified. Chronic heart failure (CHF), duration of artificial pulmonary ventilation (APV) and low albumin

levels were identified as significant risk factors in the setting of the Cardiac Surgery Clinic in Study 2.

Methods of analysis: Multiple variables were taken into account including gender, age, BMI, presence of diabetes mellitus, blood transfusion, order of surgery (elective or emergency), mean postoperative stay, duration of artificial pulmonary ventilation, and laboratory parameters. To interpret the data obtained, the dissertator used statistical methods of descriptive analysis, likelihood ratio, P-value to represent significance level by Fisher's exact test, logistic regression. Statistical analysis was performed using Stata 10.

Results obtained: are well presented textually and graphically illustrated through 50 tables, 1 diagram and 24 figures. The statistical treatment used is adequate making the discussion thorough and well systematized. It is in this chapter that the dissertator's good knowledge and extensive clinical experience, as well as his ability to critically analyze the results obtained, are evident.

Conclusions: The conclusions of the dissertation, on the topic of research, are 11 in number and are based on the overall analysis of information on the literature review, clinical material, analysis, and discussion of their own results. They are well formulated and reflect a substantial part of the sections analyzed. They have scientific and applied-practical value.

Contributions: The contributions from the dissertation, presented by Dr. Pavlin Manoilov, are 3, which are of scientific, scientific-applied, and confirmatory nature.

Conclusion: I believe that the dissertation work of Dr. Pavlin Lyubenov Manoilov "Epidemiology, risk factors and clinical manifestation of wound infections after sternotomy. Trends for prevention and treatment in the Clinic of Cardiac Surgery" is complete, thorough, modern, well-formed and properly structured. Clear, precise and comprehensive tasks are formulated and performed. The conclusions, contributions as well as the proposed protocol will be helpful for hospital practice. The dissertant has provided all the necessary documents that meet the requirements of the Law for the Development of Academic Staff of the Republic of Bulgaria and the Regulations for the Development of Academic Staff of MU - Varna for the award of the scientific degree "Doctor".

All this gives me the reason to confidently recommend to the esteemed members of the Scientific and Scientific Council to vote positively and to award to Dr. Pavlin Lyubenov Manoilov the educational and scientific degree "Doctor" in the scientific specialty of cardiac surgery.

04.02.2025

Varna

With respect

Assoc.Prof. Dr.Plamen Milchev Chernopolsky, DSc

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