

To the Chairman of the Scientific Jury

In accordance with Order No. P-109-348/18.07.2023

Of the Rector of Medical University - Varna

## STATEMENT

By Assoc. Prof. Dr. Plamen Milchev Chernopolsky, PhD

For obtaining the degree of Doctor of Medicine

in the scientific specialty "Thoracic surgery" of Dr. Katerina Marinova Marinova

Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, Faculty of Medicine, Department of  
Surgical Diseases

**On the topic: "Advantages and disadvantages of different thoracoscopic approaches in the  
diagnosis and treatment of pleural effusions."**

The submitted dissertation of Dr. Katerina Marinova is in a form and volume that meets the requirements of the Law and the Regulations of the Medical University - Varna. The dissertation was discussed, accepted and directed for defense by the Departmental Council of the Department of Surgical Diseases at MU - Varna.

**Biographical data and career development:** Dr. Katerina Marinova was born in 1986 and graduated in 2005 from the Secondary school in foreign languages "Prof. D-r Asen Zlatarov - Haskovo. In 2012 she graduated Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, specialty "Medicine". She has a specialty in Thoracic Surgery in 2019 and a specialty in General Surgery in 2023. Since 2014 she has been elected as an Assistant Professor at the Department of Surgical Diseases, Thoracic Surgery, Faculty of Medicine, Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, and since 2015 she has been an Administrative Assistant at the same Department. Since 2020 she has been a PhD candidate. She has held numerous specializations in Bulgaria and abroad. Member of the Bulgarian Medical Association, Union of



Scientists in Bulgaria, Bulgarian Surgical Society, Bulgarian Society of Pulmonary Diseases, European Society of Thoracic Surgeons, European Respiratory Society, Southern European Club of Endocrine Tumors. Fluent in English and German.

**Assessment of the relevance of the topic:** The dissertation of Dr. Katerina Marinova addresses a topical and important practical problem related to one of the most common diseases in the field of thoracic surgery, taking into account the multifactorial problems in this type of disease. On the basis of the results obtained, Dr. Katerina Marinova develops a diagnostic and treatment algorithm for the management of patients with pleural effusions through VATS with real application in clinical practice.

**Volume and structure:** The dissertation of Dr. Katerina Marinova is written in 125 standard pages, illustrated with 18 tables, 10 diagrams and 20 photos. The bibliographical reference includes 228 sources, of which 10 are in Cyrillic and 218 are in Latin.

**Methodology of the study:** The main aim of the dissertation is "to present and discuss the advantages and disadvantages of different thoracoscopic approaches in the treatment of pleural effusions, personalizing the choice of a specific type of approach and technique depending on the nature and type of pleural effusion to achieve an optimal outcome".

For the optimal solution of the main objective, the author has defined 4 tasks, which are well formulated and the development of the thesis follows their logical resolution.

As the subject of the dissertation work, the dissertator has carried out a retrospective analysis of a total of 325 patients with pleural effusions of different origin, which were hospitalized and treated in the Department of Thoracic Surgery of the University Hospital "St. Marina", Varna for a period of 10 years - 2012 to 2022. Three types of video-assisted thoracoscopic surgeries were used - multiportal, biportal and uniportal. The type of surgical access was determined according to the nature of the effusion and the desired volume of surgery.

**Methods:** Clinical presentation (duration of complaints, family history, previous interventions, comorbidities), laboratory tests (blood count, biochemistry), imaging studies (lung radiography, pleural ultrasonography, CT and PET-CT), biopsy methods, operative methods (VATS), and pathomorphological diagnosis after surgical treatment were taken into account.





For interpretation of the obtained data, the dissertator used statistical analysis - descriptive methods,  $\chi^2$ -analysis and confidence interval.

**Results obtained:** are well presented textually and graphically illustrated by tables and figures. The statistical treatment used is adequate, making the discussion thorough and well systematized. Sociodemographic indicators, clinico-diagnostic characteristics with relevant indications and contraindications are discussed. The advantages and disadvantages of each thoracoscopic method are carefully analyzed. It is in this chapter that the dissertator's good knowledge and extensive clinical experience, as well as his ability to critically analyse the results obtained, become apparent.

**Conclusions:** They are well formulated and reflect an essential part of the analyzed sections. They are of scientific and practical value.

**Contributions:** the contributions of the dissertation work, made by Dr. Katerina Marinova, are 4 in total, which are of scientific, scientifically applied and confirmatory nature.

**Conclusion:** The tasks are clearly, accurately and comprehensively formulated and executed. The conclusions, contributions, and the proposed algorithm will be helpful to hospital and ambulatory practice. The dissertant has provided all the necessary documents that meet the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria and the Regulations on the Development of the Academic Staff of MU - Varna for the award of the scientific degree "Doctor".

All this gives me the reason to recommend to the esteemed members of the National Council to vote positively and to award to Dr. Katerina Marinova the educational and scientific degree "Doctor" in the scientific specialty "Thoracic Surgery".

07.09.2023 г.

Varna

Sincerely:

Assoc. Prof. Dr. Plamen Milchev Chernopolsky, PhD



