

**ATTN: THE CHAIRMAN  
OF THE SCIENTIFIC JURY ANNOUNCED  
BY ORDER NO R-109-356/OCTOBER 25, 2024  
OF THE RECTOR OF THE MEDICAL  
UNIVERSITY 'PROF. PARASKEV  
STOYANOV' OF VARNA**

**STANDPOINT**

**by Assoc. Prof. Boryana Naydenova Ivanova-Sabeva, MD, PhD**

Department of Anesthesiology, Emergency and Intensive Medicine, Faculty  
of Medicine, Medical University 'Prof. Paraskev Stoyanov' of Varna,  
of the dissertation thesis and author's dissertation abstract of Mirela Galinova  
Neykova, MD, regular training PhD student in the PhD programme  
of 'Anaesthesiology and Intensive Treatment', included according  
to Order No R-109-436/October 28,2020, on the theme:

**INFLUENCE OF BISPECTRAL INDEX MONITORING ON SEDATION  
PROTOCOLS IN THE INTENSIVE CARE UNIT**

for awarding the educational and scientific degree of 'Doctor' in the field of higher  
education 7. Public Health and Sports, professional direction 7.1. Medicine and  
scientific speciality of 'Anesthesiology and Intensive Treatment' - 01.03.38.

I am assigned to submit the present standpoint according to Order No R-109-356/October 25, 2024 of the Rector of the Medical University 'Prof. Paraskev Stoyanov' of Varna and Protocol No 1/November 6, 2024 of the Scientific jury.

Mirela Galinova Neykova, MD, graduates from the Medical University 'Prof. Paraskev Stoyanov' of Varna in 2016. She starts to work as physician in the Centre of Emergency Medical Aid of Varna, Varna Branch, on October 14, 2016. Between

December 14, 2016, and June 1, 2021, she works as physician and postgraduate student in anesthesiology and intensive treatment in the Clinic of Anesthesiology and Intensive Treatment (CAIT) at St. Marina University Hospital of Varna. Since October 14, 2020, she works as assistant in the DAEIM of the Faculty of Medicine, Medical University 'Prof. Paraskev Stoyanov' of Varna. Between June, 2019 and 2023, she works as physician in a Consulting room for pain treatment in the Diagnostic and Consulting Centre at St. Marina University Hospital of Varna. Since June 1, 2021, she works as physician and assistant with a speciality of anesthesiology and intensive treatment in the CAIT at St. Marina University Hospital of Varna. At present, she is physician in the CAIT at St. Marina University Hospital of Varna and assistant in the DAEIM of the Medical University 'Prof. Paraskev Stoyanov' of Varna. In 2021, she acquires the speciality of 'Anesthesiology and Intensive Treatment'. She has a command of English and German language.

The present dissertation work is written on 156 typewritten pages and is illustrated with 58 figures and 39 tables. The reference list contains 182 titles, of which seven in Cyrillic and 175 in Latin.

The structure of the dissertation work includes all the necessary sections, namely: introduction (two pages), literature review (31 pages), aims and tasks (one page), object and subject of the investigation (two pages), material and methods (nine pages), results and discussion (60 pages), conclusions (one page), contributions (one page), protocol for sedation (two pages), references (13 pages), list of publications (one page), and appendices (30 pages).

The doctoral student has published three articles in two Bulgarian journals in 2024. She is the first author of two articles in two Bulgarian journals and the third author (out of a total of five authors) of one article in one Bulgarian journal. The total number of these papers amounts to 31 scores.

The investigation of Mirela Galinova Neykova, MD, is prospective, single-centre, and clinical (experimental). It deals with the creation and approbation of a revised contemporary protocol for sedation in the patients on invasive pulmonary ventilation in the intensive care unit.

In the literature survey of the dissertation work, an analysis and synthesis of the foreign and Bulgarian literature available on these problems is done. An attention is paid to the pharmacokinetics and pharmacodynamics of the sedation and to the different groups of medicaments made use of. The literature survey is a suitable basis for the proof of the ripe necessity of the accomplishment of this investigation.

The purpose of the dissertation elaboration is the following: 'To create a revised and modern protocol for sedation in the patients on invasive pulmonary ventilation based on an objective and continuous method for sedation monitoring through a bispectral index analysis'.

The working hypothesis formulated is as follows: The usage of the bispectral index score reduces the total amount of the sedative medicaments administered and mitigates the negative influence on the duration of the ventilation and length of stay in the intensive care unit of the sedatives.

For its achievement, the doctoral student has defined six tasks.

The dissertation is up to standard in methodological respect. The contemporary clinical, imaging and statistical methods used are appropriate. There are a total of 80 examined patients. They are equally distributed into two groups - an experimental and a control one. In the first group, the sedation level is monitored and controlled according to the values of the bispectral index evaluation while in the second one, it is done according to the Richmond Agitation & Sedation Scale.

The doctoral student proves for the first time in our country a series of advantages of the contemporary protocol for sedation by means of the bispectral index analysis in the patients on invasive pulmonary ventilation in the intensive care unit.

One bears in mind the shorter duration of this ventilation, of the stay not only in the reanimation unit but also of the whole hospital length of stay in comparison with the traditional method through the Richmond Agitation & Sedation Scale. Besides in the first protocol, there are less patients with unsuccessful attempts for extubation and transition towards an independent spontaneous breathing, a smaller frequency of complications, a smaller total amount of the sedative medicaments and a lower lethality rate as well.



A total of six conclusions are formulated. They testify to the successful accomplishment of the tasks of the investigation and reflect the essence of the results from it.

Three contributions are presented. In my opinion, they are doctoral student's personal deed and merit and will contribute to the introduction of this effective protocol for sedation in the patients requiring the invasive pulmonary ventilation in our country.

The contents of the author's dissertation abstract conforms on the dissertation work.

In the materials submitted to me, a summary of the dissertation work in Bulgarian and English is missing.

The dissertation thesis of Mirela Galinova Neykova, MD, for the acquisition of the educational and scientific degree of '**Doctor**' submitted to me for a standpoint meets the requirements of the Law for the development of the academic staff in Republic of Bulgaria and of the Statute-book concerning the conditions and order for the acquisition of the scientific degrees and the occupation of academic positions in the Medical University 'Prof. Paraskev Stoyanov' of Varna. It deals with a topical scientific work of good quality.

Based on these ascertainments, I give my positive evaluation of the dissertation work and propose to the honoured members of the Scientific juri to award Mirela Galinova Neykova, MD, the educational and scientific degree of '**Doctor**' in the scientific speciality of 'Anesthesiology and Intensive Treatment'.

December 16, 2024  
city of Varna

*Assoc. Prof. Boryana Naydenova Ivanova-Sabeva, MD, PhD*

Standpoint pr

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