Statement

by Assoc. Prof. Dr. Margarita Petrova Atanasova, MD, PhD
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Clinic of surgery USBALE "Acad. Ivan Penchev" EAD
external member of the Scientific committee based on order № 15-03-65#1/13.02.2024
of the Executive director and Procurator of "Acibadem City Clinic UMBAL Tokuda" EOOD

Subject: Competition for the academic position of "Associate professor" in the field of higher education 7. "Healthcare and sports", in professional direction 7.1. "Medicine", scientific specialty "Anesthesiology and intensive care" for the needs of the Clinic of anesthesiology and intensive care at "Acibadem city clinic UMBAL Tokuda" EOOD, announced in the State gazette № 104/15.12.2023.

The competition includes one candidate - Dr. Bilyana Petkova Kamenova, MD, PhD

Biographical data, education, professional development, qualification, and specializations

Dr. B. Kamenova graduated in medicine from the Medical University of Sofia in 1997. From 1998 to 2006, she worked at "Tsaritsa Yoanna" – ISUL University Hospital. From 2006 to 2016, she was a resident doctor at Tokuda Hospital Sofia. Dr. B. Kamenova has been a resident doctor at the Clinic of Anesthesiology and Intensive Care at "Acibadem City Clinic UMBAL Tokuda" since 2016. In 2003, she obtained a specialization in "Anesthesiology and Intensive Care". In 2020, she successfully defended a thesis on the topic: "Anesthesia and intraoperative neurophysiological monitoring in surgical corrections of scoliosis in childhood" to obtain an educational and scientific degree of "Doctor" in Medicine in the scientific specialty "Anesthesiology and Intensive Care".

Dr. B. Kamenova has undergone a series of specializations in France: in anesthesiology and resuscitation in the field of liver transplantation, in anesthesiology in the field of maxillofacial and plastic surgery, as well as specialization in anesthesiology and intensive care.

She is proficient in written and spoken French and English.

Scientific research activity

Dr. B. Kamenova presents a total of 23 scientific works, including 11 participations in international and national scientific forums. The scientific publications consist of 12 works, including 1 monograph, 4 publications in refereed and indexed scientific journals, one of which is under print, and 7 publications published in non-refereed journals with scientific review, one of which is under print. Dr. B. Kamenova is the sole author of 4 of the publications and as the first author is represented in 7 scientific works. In the presented scientific communications at congresses, conferences, and symposiums with printed abstracts, Dr. B. Kamenova has participated as follows: 3 participations in international scientific forums, 7 participations in national scientific forums with international participation, and 1 participation in a national scientific forum.

Citations

Dr. B. Kamenova's scientific publications have been cited 10 times: 4 citations in monographs and collective volumes with scientific review and 6 citations in non-refereed journals with scientific review.

Group of indicators	Table of contents	Number of points according to the minimum national requirements for Associate Professor	Number of points of the candidate for Associate Professor
A	Indicator 1	50	50
B	Indicator 2	Not required	-
C	Indicator 3 or 4	100	100
D	Sum of indicators from 5 to 9	200	204.29
E	Sum of indicators from 10 to 12	50	70
Total number of points		**400**	**424.29**

Main scientific research and applied contributions

Dr. B. Kamenova's scientific works are related to the therapeutic-diagnostic and clinical activities of an anesthesiologist-intensivist and reflect the study and development of the following issues: electrophysiological monitoring in surgical corrections of scoliosis in childhood; anesthesia during the application of intraoperative neurophysiological monitoring; perioperative period and anesthesia in surgical corrections of idiopathic scoliosis in childhood; perioperative period and electrophysiological monitoring in pediatric patients with neuromuscular scoliosis; organic acidemias - perioperative care in pediatric patients.

Electrophysiological monitoring in surgical corrections of scoliosis in childhood – Monograph

Dr. B. Kamenova works on this topic by examining the emergence and development over time of the method of electrophysiological monitoring, the basic principles of its implementation, the anatomical features of somatosensory and motor pathways, as well as the main components of intraoperative neurophysiological monitoring - somatosensory evoked potentials, transcranial motor evoked potentials, electromyography, and electroencephalography. As a result of a comprehensive and multi-aspect approach to the problem, Dr. Kamenova has developed structured protocols for conducting intraoperative neurophysiological monitoring. The created protocols have practical application and are systematized in a monograph, which can serve as a guide for conducting electrophysiological intraoperative monitoring in the surgical treatment of children with spinal deformities in Bulgaria.

Anesthesia during the application of intraoperative neurophysiological monitoring (IONM) - Publications 7, 9, 10

This is one of the main sections in Dr. B. Kamenova's scientific research. The experience gained from using two types of anesthetic protocols simultaneously with IONM application is presented. The effectiveness of neuro-monitoring using intravenous and inhalation anesthetics

is compared. It has been established that both types of anesthesia are reliable and allow for effective electrophysiological monitoring. Unified protocols for anesthetic approach and IONM are presented, which ensure patient stability during surgery, reduce the risk of complications, and facilitate the team's work.

Perioperative period and anesthesia in surgical corrections of idiopathic scoliosis in childhood - Publications 4, 6, 8, 9

This direction is presented by Dr. B. Kamenova through an analysis based on her own experience, and protocols are developed for preoperative preparation, anesthetic approach, postoperative observation, and pain management in surgical corrections of idiopathic scoliosis in childhood. These algorithms are tailored to the specifics of intraoperative neuromonitoring.

Perioperative period and electrophysiological monitoring in pediatric patients with neuromuscular scoliosis (NMS) - Publications 4, 6, 7, 10

Part of Dr. B. Kamenova's publications are dedicated to studying the perioperative period in pediatric patients with NMS. The most common concomitant diseases are examined in detail, and the necessary preoperative investigations for assessing the function of the major organs and systems in this patient population are specified. The features of anesthesia and the impact of different anesthetics on pediatric patients with NMS are presented through the prism of concomitant pathology. Recommendations for anesthetic approach in children with NMS are provided. A protocol for approach in the perioperative period in surgical corrections of NMS is proposed.

Organic acidemias - perioperative care in pediatric patients - Publication 11

In this section, Dr. B. Kamenova conducts studies on recommendations for approach in the preoperative period in pediatric patients with "classic" acidemias. The characteristics of anesthesia are presented, the impact of anesthetics is discussed, and medications with possible side effects are specified. Precise recommendations for anesthetic approach ensuring stable acid-base balance in the body in this patient population are provided.

Educational Activity

Over a period of 5 years: from January 1, 2019, to January 31, 2024, Dr. B. Kamenova has presented realized educational workload for residents and continuing education totaling 1368 equivalent hours.

In conclusion:

The volume and quality of the scientific activity of Dr. Bilyana Petkova Kamenova, MD, in combination with her clinical professional activity, meet the requirements and criteria of the Law on the development of academic staff in Republic of Bulgaria and the regulation on the terms and conditions for awarding scientific degrees and holding academic positions at "Acibadem City Clinic UMBAL Tokuda" EAD.

Dr. B. Kamenova's rich and longstanding experience as a conscientious, precise, and dedicated doctor, and not least as a colleague with whom I have had the opportunity to work, gives me grounds to give my positive vote and recommend to the members of the honourable scientific jury to positively support the candidacy of Dr. Bilyana Petkova Kamenova, MD, for awarding the academic position of "Associate Professor" in the scientific specialty "Anesthesiology and Intensive Care" at "Acibadem City Clinic UMBAL Tokuda" EAD.

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Sofia

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