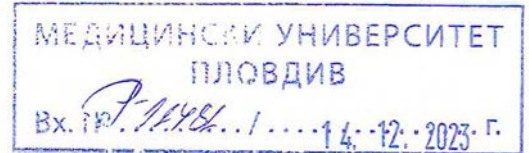


# Standpoint



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 a dissertation work and author's dissertation summary of Angel Petrov Prodanov, MD, a PhD student in independent preparation according to a PhD programme of 'Anesthesiology and Reanimatology' at the Department of Anesthesiology, Emergency and Intensive Medicine, Medical University of Plovdiv  
on the theme

LIFE-THREATENING HYPERGLYCEMIC DISORDERS IN PATIENTS WITH  
DIABETES MELLITUS IN THE INTENSIVE CARE UNIT

for the acquisition of the educational and scientific degree of 'doctor of philosophy' for a scientific speciality of 'Anesthesiology and Reanimatology', *cipher 03.01.38*

I am approved member of the Scientific jury according to Order No R-3012/October 18, 2023 of the Rector of the Medical University of Plovdiv.

In 2011, Angel Petrov Prodanov, MD, graduated from the Medical University of Plovdiv. He works as intern at 'Sabo Nikolov' Multiprofile Hospital for Active Treatment Ltd in the town of Panagyurishte from November, 2011 to July, 2014, while as physician-anesthesiologist, consecutively, at 'Kozma and Damyan' Multiprofile Hospital for Active Treatment Ltd in the city of Plovdiv from July, 2014 to August, 2016, at 'Pulmed' University Multiprofile Hospital for Active Treatment Ltd in the city of Plovdiv from February, 2015 to May, 2017, at 'St. Georgi' University Multiprofile Hospital for Active Treatment Ltd in the city of Plovdiv since October, 2011 to presence, and at 'Uni Hospital' Multiprofile Hospital for Active Treatment Ltd in the town of Panagyurishte since May, 2016 to presence. Since September, 2014 to the present moment, he works as lecturer at the Department of Anesthesiology, Emergency and Intensive Medicine, Medical University of Plovdiv. In 2017, he acquires the speciality of 'Anesthesiology and Intensive Care'.

The present dissertation work is written on 170 type-written pages. It contains the following sections: Review of the literature (42 pages), Purpose and tasks (one page), Material and methods (12 pages), Results (58 pages), Discussion (19 pages), Concluding remarks (two pages), Conclusions (one page), Contributions (one page), and References (23 pages). There are both Introduction and a List with the publications related to the dissertation work in the author's dissertation summary only. The dissertation is illustrated by 27 figures and 25 tables. A total of 246 literature sources are cited as all of them are in Latin.

The PhD student has published as a first author three collective papers in one Bulgarian journal, two of them in 2018 and one in 2023. The total sum of his scores for these papers amounts to 27,50.

Angel Petrov Prodanov's retrospective observational investigation is devoted to the complex treatment of the acute hyperglycemic disorders in the patients with diabetes mellitus in the intensive care unit.

In the review of the literature, both analysis and synthesis of a total of 183 foreign publications on these problems are performed. In the conclusion, the low degree of evidences of the contemporary models of the complex management of the critically ill patients with hyperglycemia and diabetes mellitus under the conditions of the intensive care unit is emphasized. This represents the grounds for the accomplishment of the present study.

In the text of the literature review, four numbers of publications cited are absent (Nos 1, 154, 169, and 175). On page 18, Polonsky et al. is written without any indication of the consecutive number in the reference list, on page 45, the name of an author Martin (in Cyrillic) is shown without any indication of the consecutive number in the reference list, and on page 51, 'a retrospective cohort study which analyzes the corrected cost of the hospitalizations and *bring*' is mentioned without any number in the reference list. On page 19, below figure 1, the only paper which has been published in 2020 and included in the reference list as No 246 is cited without the addition in its bibliographic description of the number 24 corresponding to it which has already been occupied by one other citation. In five articles included in the reference list, i.e., Nos 14, 21, 24, 51, and 62, it deals with incomplete bibliographic descriptions, most

probably, because of their secondary or tertiary referencing on the part of the PhD student. For instance, in No 14, it is written ‘<sup>[14]</sup> for Disease Control, C., & Prevention. (2013). *Mortality due to Hyperglycemic crises.*’ only. The cited papers which have been published in the past century prevail. During the period between 1958 and 1982 only, a total of 38 articles have been published.

The purpose of the dissertation elaboration is: ‘To work out a complex therapeutic approach for the treatment of the patients with severe life-threatening hyperglycemic conditions in the patients with diabetes mellitus in the intensive care unit’. Four tasks are formulated for the achievement of this purpose.

The methodology of the dissertation is appropriate. The various clinical, laboratory and imaging examinations of the surgical and non-surgical patients presenting with different demographic, epidemiological and clinical features who have undergone an intensive hospital management, are correctly carried out. Contemporary diagnostic methods are made use of. Data obtained are processed by appropriate modern statistical methods of analysis.

The PhD student convincingly juxtaposes both strategies of glycemic control, i.e., the liberal and the strict one. He analyses in detail the results from their application in terms of mortality rate, incidence of infections complications, multiorgan failure and cerebral oedema as well as of the duration of the patients’ stay in the intensive care unit and of the mechanical ventilation. The results obtained by him and foreign authors’ data enable him to elaborate an original protocol for the complex management of the patients with acute life-threatening hyperglycemic conditions due to diabetes mellitus undergoing intensive hospital treatment.

In the ‘Discussion’ section, the main PhD student’s results are systematized in order to outline their importance for the practice. Unfortunately, only a total of 11 out of 63 literature sources which have not been mentioned within the review of the literature, are indicated in the text of the Discussion, at that, without their consecutive number. On page 128, it deals with SCOPE-DKA (from 2021, absent in the reference list); on page 129, with Ugale et al. and with Koves et al.; on page 130, with Holliday and Segar (from 1957); on page 134, with NICE, with Kitabchi et al., and with JBDS; on page 136, with Fisher et al., with ADA, and with JBDS; on page 137, with SUEET;

on page 138, with Van der Berghe et al.; on page 139, with ADA and with JBDS; on page 140, with ADA and with JBDS; on page 144, with Van der Berghe et al., and on page 145, with ADA and with JBDS.

The PhD student formulates a total of six conclusions. They correspond to three of the tasks set. The fulfilment of the fourth task is reflected as a scientifically practical contribution.

Two scientifically theoretical and two scientifically practical contributions are presented. In my opinion, they are personal PhD student's deed and will help the broader application of his original protocol for the complex management of the patients with acute hyperglycemia in the Bulgarian clinical practice.

The content of the author's dissertation summary corresponds to the dissertation work.

In the text of the dissertation and of the author's dissertation summary, numerous spelling and stylistic mistakes are committed. For instance, on page 5 of the author's dissertation summary, instead of 'intensively treated patients', 'intensively patients' is written; on page 12 of the dissertation, 'or manifested' is falsely indicated, etc. At the end of the titles of a series of chapters and subchapters in the dissertation work, a full stop is placed. The bibliographic description of the initial five sources cited in the bibliography does not meet the requirements. For instance, 'Association, A. D. (2014). Diagnosis and classification of diabetes mellitus. *Diabetes Care*, 37:S81S90' should read 'American Diabetes Association. Diagnosis and classification of diabetes mellitus. *Diabetes Care*. 2014;37 Suppl 1:S81-S90.'.

These short-comings of the design of the dissertation work do not considerably depreciate its scientific merit.

The dissertation of Angel Petrov Prodanov, MD, placed at my disposal for standpoint for awarding the educational and scientific degree of 'doctor of philosophy' meets the requirements of the Law for development of the academic staff in the Republic of Bulgaria. This is a topical scientific work of contributory nature.

Based on these ascertainties I give my positive evaluation of the dissertation work and propose to the honoured members of the Scientific Jury to award the

educational and scientific degree of ‘**DOCTOR OF PHILOSOPHY**’ in the scientific speciality of ‘Anesthesiology and Reanimatology’ to Angel Petrov Prodanov, MD.

Заличено на основание  
Чл.5 §1, б. "В" Регламент (ЕС)2016/679

December 12, 2023

Standpoint prepared by:

city of Varna

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