

WRITTEN OPINION

from

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On the dissertation paper for obtaining Doctor's Academic and Science Degree under a PhD Program
"Social Medicine and Health Management", Higher Education Area 7. Healthcare and Sports;
Professional Area 7.1 Medicine

By **Adriana Miroslavova Dacheva**

With topic:

**APPLICATION AND IMPLEMENTATION OF THE TDABC METHODOLOGY – COSTING BASED ON ACTIVITY
AND ITS DURATION IN EYE CLINICS IN BULGARIA, IN THE TREATMENT OF PATIENTS WITH MACULAR
DEGENERATION**

Scientific supervisors: Prof Plamen Dimitrov, MD, PhD
Prof Toni Vekov, DSci

The dissertation submitted for evaluation examines the application and implementation possibilities of a specific benefit-based healthcare methodology. A major focus is the TDABC approach - activity-based costing and its duration, which has been thoroughly and comprehensively investigated and evaluated in two field studies regarding the treatment of patients with macular degeneration.

In a volume of 158 pages, the steps and variations in the process of providing medical care, which can contribute to improving and optimizing the results for patients and medical facilities, are examined, commented and analyzed. For example, reduction of time lost or dwell time, optimization of processes and interventions within the full cycle of medical care, reduction of unused capacity are detailed and carefully described and commented.

The defined aim and tasks of the dissertation work are entirely within the scope of the scientific specialty of the doctoral program and correspond to the content and the conducted studies. The methods and materials of the studies are correctly selected and comprehensively described, which shows excellent level of knowledge of on the subject demonstrated by the PhD student. An in-depth approach and a good balance are shown in terms of contributions of a scientific-theoretical and scientific-applied nature, which are formulated by the dissertation student.

In this work, a comprehensive literature review on the subject was made on 113 foreign sources, Bulgarian publications and publicly available databases. The internationally approved and validated questionnaires and methodologies used for assessment of quality of life of patients are shown in the appendices. The choice of the topic, in my opinion, is also determined by the personal experience and interests of the PhD

The present written opinion was prepared in accordance with Art. 72, par. 1 of the Rules on the Terms and Conditions for Obtaining Science Degrees and Academic Positions with the National Center for Public Health and Analyses and in conjunction with Order No. RD-241/13.01.2023 of the Director of the latter.

student Adriana Dacheva, as she demonstrates thorough training and fluency with terminology and tools of health economics, modern guidelines and recommendations for assessments in health care, and the capacity to conduct independent studies.

Own studies are comprehensive and properly structured. The review part and own study and results are well balanced. A classical approach was used in structuring the dissertation: aim, tasks, working hypotheses, materials and methods, results, discussion, conclusion, recommendations, covering a total of 73 pages. TWO specialized medical facilities were studied, 116 patients with macular degeneration were followed. An initiation questionnaire for diagnosis, treatment and follow-up, a process plan and key performance indicators are attached. The analysis shows that in the first medical facility, when applying valuation based on the activity and its duration, around BGN 70 thousand would be saved per year and the time would be reduced by 1/3. The discussion of results focuses on and comments the limited number of facilities that measure patient outcomes and/or report them to healthcare professionals and/or the public. Examples of leading clinics and medical institutions abroad are presented, where the benefit to the patient and the funding institution are leading points, and the main stages are indicated: organization of integrated treatment units; measuring costs and outcomes for each patient; package payments for a treatment cycle; platforms for information and digital technologies, etc.

In connection with the dissertation work, 3 publications are presented, 2 of which in Bulgarian scientific periodicals and ONE article in a foreign refereed scientific journal. The PhD student Dacheva is the FIRST author in all publications. There are 7 participations in specialized and highly recognizable scientific forums. The quantitative requirements of National Rules and the Regulations of the National Centre of Public Health and Analyses are met. I accept the results obtained and the conclusions drawn in the dissertation, which follow logically from the pre-set goals and tasks and prove the research hypotheses. I recognize as the most significant the one proven indisputably by the research done - the TDABC methodology can optimize medical care, with a main focus on the final results (medical outcomes and outcomes related to the patient's quality of life).

The submitted abstract meets the requirements.

Some general remarks can be made at the technical and terminological level.

Conclusion:


The dissertation presented for discussion and evaluation is of high quality and added value for health management and health economics.

The dissertation paper for obtaining Doctor's Academic and Science Degree (PhD) on the part of Adriana Miroslovova Dacheva, studying individually in this PhD program, meets the requirements, focuses on a specific border area, represents a novelty for Bulgaria and has significant advantages in view of introduction of new policies, changes in medical practice and decision-making at governance level.

Upon reviewing in details the package of materials submitted for the dissertation of Adriana Dacheva, my opinion is that the topic, the volume, the findings, the conclusions and the formulated contributions are fully consistent with the Rules of the NCPHA, the PhD program, and are result of own research and studies of the author.

In view of the foregoing arguments and the submitted dissertation thesis, **I confidently give my positive evaluation** and propose to the Honorable Members of the Scientific Jury to confer with **Doctor's Academic and Science Degree (PhD)** Ms. Adriana Miroslavova Dacheva for the conducted study presented as dissertation work, author's abstract of doctoral dissertation, results achieved, publications made and contributions.

Signature:


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