### **OPINION**

By: Assoc. prof. Dr. Veselina Kondeva-Glavinkova, PhD
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External member of the Scientific Jury According to Order № R-109-102/07.03.2022 of the
Rector of the Medical University – Varna

In accordance with Dissertation for awarding educational and scientific degree "Doctor" in a doctoral program "Pediatric dentistry", professional field 7.2 Dental Medicine, sphere of higher education 7. Health and sports

Author: Gergana Trifonova Trifonova

Department: Pediatric Dentistry, Faculty of Dental medicine in Medical University – Varna

**Topic:** ASSESSMENT OF ORAL STATUS IN CHILDREN WITH MALIGNANT DISEASES SUBJECT TO CHEMOTHERAPY

Academic supervisor: Prof. Dr. Radosveta Stoyanova Andreeva - Borisova, PhD

## General presentation of the procedure and the doctoral student

According to Art.32 of the regulations for application of the Law for development of the academic staff in the Republic of Bulgaria and Order  $N_P - N_P - 109-102 / 07.03.2022$  of the Rector of Medical University – Varna at the first meeting of the Scientific Jury I was appointed to prepare an opinion as an external member of the Scientific Jury of the dissertation work of Dr. Gergana Trifonova Trifonova. The presented set of materials on paper and electronic media is in accordance with the procedure for awarding "doctoral degree" in MU - Varna; Regulations of MU-Varna.

## Brief biographical data about the doctoral student

Dr. Trifonova has completed her higher education and obtained a Master's degree in Dental Medicine in 2006 at the Faculty of Dental Medicine, Medical University - Plovdiv. After successfully passing the exam from 2010 until now, she has been an assistant in the Department of Pediatric Dentistry, Faculty of Dental Medicine, Medical University - Varna. Since 2015 Dr. Trifonova has a master's degree in Health Management, and in 2016 she acquired a degree in Pediatric Dentistry. She speaks English and Russian. Participates in the training of students in pediatric dentistry.

### Relevance of the topic and expediency of the set goals and objectives

Assessment of oral status and treatment of dental complications are especially important for children with cancer. In these children in the different stages of cancer and the treatment, several problems related to dental health occur. They may be associated with pre-existing untreated dental caries, periodontal disease, or pathological lesions of the hard and soft tissues of the oral cavity, the presence of oral manifestations of cancer, the development of oral complications because of cancer therapies and the development of long-term dental complications after completion of oncology therapy. All this makes Dr. Gergana Trifonova's dissertation relevant, up-to-date, and useful for dental science and practice.

### Knowledge of the problem

Dr. Trifonova shows excellent awareness and theoretical training. The literature review is thorough, comprehensive, written in a good scientific style and allows a comparative analysis of the results of her own research with similar ones in the scientific literature. The literature review is supported by 169 literature sources, of which 8 in Cyrillic and 161 in Latin. The literary reference is up-to-date. An extensive review of the topic shows that the doctoral student knows the problem in detail and analytically evaluates the data from the scientific literature. The conclusion of the review focuses on the unresolved issues on the topic and directs to the goal and the objectives of the dissertation.

## Characteristics and evaluation of the dissertation

Dr. Gergana Trifonova's dissertation, presented to me for review is a personal work of the doctoral student and contains all the necessary sections in accordance with the requirements: introduction, literature review, purpose and tasks, material and methods, results and discussion, main conclusions, contributions of dissertation, bibliography, and applications.

The dissertation is written on 158 pages, illustrated with 6 tables, 52 figures, 6 photos and 4 appendices. The bibliography includes 169 literary sources, 8 in Cyrillic and 161 in Latin. The dissertation was discussed and directed to the defense of the extended Department Council of the Department of Pediatric Dentistry at the Faculty of Dental Medicine - Varna, Medical University

- Varna, where the doctoral student works.

The literature review is structured correctly, addressing the main oral health problems in children with malignant diseases undergoing chemotherapy.

The aim of the dissertation is to analyze the clinical characteristics of oral changes in children with malignant diseases during chemotherapy and to define optimal therapeutic and prophylactic regimens of complex medical and dental behavior in these children.

To fulfill this goal six task were determined. The purpose and tasks of the dissertation are formulated accurately and clearly, which allows successful implementation of the goal and contributes to the enrichment of knowledge on this issue.

The methods used for the dissertation are clinical and sociological and are presented by tasks. The object of observation are 50 children with leukemia who have been treated for cancer, 50 healthy children for the control group, 60 pediatric dentists.

The obtained results prove the correlation of the DMFT index with the age of the children, the conducted dental treatment, the reason for visiting a dentist in children with leukemia. A link between PLI and the frequency of brushing has been established, and OHI correlates with dental treatment in children with cancer.

The assessment of oral health in children without and with malignant diseases shows a significant difference in the DMFT index, PLI, OHI and caries risk. Data from a study on the impact of malignancy on the individual's quality of life of children show that mucosal lesions are the most common complication of ongoing cancer therapy. The appearance of mucositis creates difficulties in eating, fluid intake and pain. Dentists working with children are not sufficiently informed and prepared to treat children with cancer.

The used methods allow the fulfillment of the set goals and tasks, and the selected statistical methods guarantee the reliability of the obtained results.

The obtained results are very well presented, accurately illustrated with tables and figures, with presented statistical reliability and dependencies.

# Contributions and significance of development for science and practice

Two contributions with an original character for the country have been formulated, as well as four practical contributions, which I accept.

The suggested algorithm for dental treatment of children with cancer will allow dentists to decide on the details of dental treatment for children with cancer. The interdisciplinary approach in the treatment of children with malignant diseases will provide an opportunity to develop an individual program for prevention, treatment, and control of oral diseases of these children and will improve their lifestyle.

## **Evaluation of dissertation publications**

In connection with her dissertation, Dr. Gergana Trifonova has published three full-text articles. Dr. Trifonova is the first author in all publications

## Personal participation of the PhD student

The dissertation was conducted entirely by the doctoral student, under the guidance of her supervisor, which is confirmed by the list of publications and participations attached. The personal merits of the doctoral student in connection with the realization of the dissertation are indisputable. Her personal work includes conducting the research, collecting, processing, and analyzing data, drawing conclusions and contributions and finalization of the design of this fully completed dissertation.

### Abstract

The presented abstract reflects in a synthesized form the structure and content of the dissertation.

#### Critical remarks and recommendations

I have no critical remarks on the dissertation submitted to me for an opinion by Dr. Gergana Trifonova. I recommend the author to promote the results of his own research through publications and participation in scientific forums, as I believe that this will contribute to enriching the knowledge in this area and will improve the quality of dental practice, especially in pediatric dentistry.

### **CONCLUSION**

The dissertation contains scientific, scientifically applied, and practical results, which represent an original contribution to science and meet all the requirements of the Regulations for development of the academic staff in Bulgaria. The Regulations for its implementation and the relevant Regulations of MU - Varna. The presented materials and dissertation results fully comply with the specific requirements of MU - Varna.

The dissertation shows that the doctoral student Dr. Gergana Trifonova Trifonova has in-depth theoretical knowledge and professional skills in the scientific specialty "Pediatric Dentistry", demonstrating qualities and skills for independent research.

Due to the above, I confidently give my positive assessment of the research on the dissertation on "Assessment of oral status in children with malignant diseases undergoing chemotherapy", abstract, results and contributions, and invite the distinguished scientific jury to award educational and scientific degree "Doctor" of Dr. Gergana Trifonova Trifonova in a doctoral program in Pediatric Dentistry.

20, 04, 2022

Reviewer:

Assoc. Prof. Dr. Veselina Kondeva, PhD