STATEMENT

From

Assoc. Prof Dr Ralitza Wilson Gueorguieva, MD, Department of Pediatrics, Medical University – Sofia, appointed member of the scientific jury by the order of the Rector of Medical University – Varna 3-109-135/05.04.2024

For the dissertation with author Tanja Ljubomirova Zlateva on "Organization and results of a programme for early detection and follow-up of Small for Gestational Age infants and children" for the award of the scientific and educational degree "Doctor" in the field of higher education "Health and Sport", Code 7.1; Proffesional field: "Medicine", Scientific specialty "Pediatrics'

Scientific supervisor: Prof. Dr Violeta Mihova Iotova, MD

Biographical data about the PhD student

Dr Zlateva was born on 17. 11. 1992 in Veliko Tarnovo. She graduated from Varna Medical school in 2017 and specialized pediatrics in Childrens Clinic in Varna, Pediatric Intensive Care Unit. Her professional interests are mainly in the field of emergency pediatrics, neonatology and pediatric intensive care. As a student Dr. Zlateva participated in seminars, educational courses and scientific congresses and was included in different projects of Pediatric Department, Medical University – Varna, one of these projects was the programme for early detection and follow – up of Small for Gestational Age (SGA) infants and children. She was appointed in 2019 as a doctoral student and later as an assistant in Pediatric Department, Medical University – Varna. Dr Zlateva is a member of Bulgarian Pediatric Society, Bulgarian Neonatology Society and European Society of Pediatric Endocrinology.

The doctoral candidate possesses the necessary competences for the successful development and completion of a dissertation with the indicated topic

Relevance of the topic

The problem of intrauterine growth retardation and small for gestational age infants is a substantial object of interest and research for obstetricians, neonatologista and pediatricians due to its significance for the clinical course of the infants in the neonatal period and early neonatal pathology and the late morbidity, presented mainly by arterial hypertension, heart and vascular diseases, chronic renal injury, growth retardation, endocrine disorders and premature death. Dr Zlateva has very nicely presented the very limited scientific data in Bulgaria about the problems of small for gestational age infants and children and insufficient awareness of the clinical approach in pediatrics and neonatology. These facts hinder the accumulation of information about the epidemiological data and implementation of preventive measures. The Programme developed by DR. Zlateva has an enormous potential for the complex health care of SGA infants and children

Structure of the dissertation

The thesis and the abstract are well structured and meet the generally accepted requirements. The dissertation contents 180 standart pages and includes 11 tables, 29 figures and 16 appendices. The bibliography comprises 238 sources, of which 11 are in Bulgarian and 227 in English. The dissertation is

structured in 10 chapters and contains an introduction, literature review, aim and objectives, methods and materials, results and discussion, conclusions, contributions, appendices, references.

Knowledge of the problem

The literature review demonstrates very good knowledge of the topic. There is a detailed presentation of actual diagnostic criteria, definitions, etiological factors associated with different conditions of the mother, fetus, placental pathology and infections; early and late morbidity. The author presented extended information about the principles of development of projects for early detection, diagnosis and follow – up. The current situation in Bulgaria has been analyzed in details and is clearly shown that the information in the society and among clinicians needs to be further developed in order to ensure optimal clinical approach. The aim and tasks of the dissertation are very good and clearly formulated.

Methodology of the study

The methods are adequate for fulfilling the aim of the study and are multiform including extensive search of the medical literature, survey, organizational and clinical approaches, development of algorithm for follow – up, provided by pediatric endocrinologists, scientific and applied methods etc. Adequate analytical methodologies were used.

Results and discussion

The author presented detailed analysis of the international and Bulgarian scientific literature. There are only few publications in Bulgaria on the topic and this fact suggests also substantial difficulties for development of the programme. The survey showed that in the majority of neonatal departments, there is a lack of optimal equipment for the anthropometric measurements of newborn infants, the methods used for diagnosis of small for gestational age infants are not unified. After the survey a lot of work has been done for development of logo, posters, leaflets, electronic site, educational videos, a telephone contact with the neonatology departments was constantly provided. The site of the programme, e - mail, Facebook contacts should continue to be functional after the end of the pilot study. After the survey and on line education the possible barriers and facilitating factors were defined. The main source of obstacles for the project are placed in the neonatal departments - lack of medical staff, lot of clinical work, difficulties in perception of new definitions and clinical methods, forgetfulness about the project etc. In the first stage of the project 275 SGA infants were identified, 3,7 % of all newborns in participating neonatal facilities, the number of families agreed to participate was 139. Some of the neonatal departments claimed to participate actually did not participate later in the project. In two of the neonatal departments Sliven and Stara Zagora were diagnosed 9, 1% and 7,8 % SGA infants. The causes for parents denial were investigated - lack of understanding, cultural and social factors, anxiety about possible diagnosis and blood drawing procedures. Detailed analysis about the barriers and facilitating factors was done and presented. In the first stage of the project were detected 794 SGA infants, 3,2 % of all included live born newborns. Facilitating factors and barriers were identified also after completion of the project. 794 SGA infants were diagnosed at the and of the pilot project, 3,2 % of all screened infants, in the participating neonatal departments, for the analytical studies remained 409 infants. Algoruthm for endocrinological follow-up was developed. More than half of the regions of Bulgaria were included, which defines the populational type of the study. Objective obstacle for the project was the COVOD 19 pandemic and this was also analyzed in the results and conclusion chapter. The development of this project shows clearly the potential for future expanding. Based on the useful experience of the presented project, the

author recommends additional measures, which would contribute to the success of the projects, such as using an automatic software for identifying the SGA infants.

Contributions and significance of the work for science and practice

For the first time in Bulgaria a pilot scientific – practical project for the early detection and follow – up of small for gestational age infants has been carried out in order to prevent early and late complications. There are epidemiological data for 3 neonatal departments – Stara Zagora, Pleven and Sliven. The important task about raising the awareness in the society and among medical specialists for the importance of early diagnosis and follow -up of small for gestational age infants and children was completed. Algorithms and expanding professional society of well informed neonatologists and pediatricians were developed.

Dr. Zlateva has 3 scientific publications as a leading author and 4 presentations at international and national scientific events.

The topicality of the problem, thej innovative character of the developed programme, the presence of contributions of scientific and applied nature is the basis for determining the presented scientific work as successfully developed in accordance with the Law on the Development of Academic Staff in the Republic of Bulgaria, the Regulations for its implementation and the Regulations of MU – Varna for the award of the educational and scientific degree "Doctor" (PhD).

I strongly recommend the Honorable Scientific Jury to award the degree of Doctor of Education and Science to Dr. Tanja Ljubomirova Zlateva in the field of higher education "Health and Sport", Code 7.1, professional field "Medicine", Scientific Specialty Pediatrics.

13.05. 2024

Author of the statement

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

Assoc Prof Ralitza Gueorgujeva