

## REVIEW

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Medical University Prof. Dr. Paraskev Stoyanov – Varna

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*Member of the Scientific Council, designated by Order № R-109-373/21.08.2023  
By the Rector of Medical University - Varna*

*Regarding: Competition for the occupation of the academic position of Associate Professor in the Higher Education area 7. Health and sports, professional field 7.1. Medicine, for the needs of the Faculty of Public Health, Department of Disaster Medicine and Marine Medicine at the Medical University Prof. Dr. Paraskev Stoyanov – Varna, promulgated in State Gazette, issue 54/23.06.2023*

Documents were submitted by one candidate - Chief Assistant Professor Maria Panteleeva-Popova, MD, PhD, at the Department of Disaster Medicine and Maritime Medicine, Faculty of Public Health at Prof. Dr. Paraskev Stoyanov Medical University - Varna.

### **Professional Development**

Dr. Panteleeva was born on September 20, 1961 in the city of Varna. She graduated from First Language School - Varna with English language in 1980 and the Medical University - Varna in 1986. From 1987 to 1993, she worked as a resident in the Department of childhood and adolescence hygiene at HEI - Shumen; since 2004 she has been working as a resident in the Organizational-Information Department at HEI - Varna; from 2005 to September 2013, she was successively Senior Expert, Chief Expert, Chief Inspector in the Directorate "APFSO" of RIOKOZ / RZI - Varna.

From September 2011 to May 2013, she was a part-time assistant in the Department of Disaster Medicine of the Medical University of Varna, and from September 2013 she was appointed as a full-time assistant after a contest. In September 2018 following a successful defence of a doctoral thesis: "Possible environmental risks in the Varna region and the role of pharmacists in industrial accidents and chemical terrorism" at the Medical University - Varna Dr. Panteleeva was awarded with a PhD in the specialty "Disaster medicine".

Since May 2019, after a competition, she has been appointed as a Chief Assistant in the Department of Disaster Medicine and Marine Medicine, MU-Varna.

Since 2020, she has a diploma in Medicine of disaster situations (catastrophes) specialty.

She has over 30 publications in various scientific journals.

She is a co-author of a study guide in Disaster Medicine "Bilingual Terminology Dictionary", published 2019.

Her scientific interests are mainly in the field of development and promotion of training in Disaster Medicine.

Particular attention is paid to the need of introducing the Disaster Medicine discipline in the training of Master Pharmacists. In this regard, in 2014 she gave a report at the Scientific and Practical Conference "Challenges in the Education of Master Pharmacists" at the Faculty of Pharmacy, and

in 2017 - a lecture to Master Pharmacists at the Continuing Education of the Regional College of Pharmacy - Varna.

Her main scientific works are in the field of Disaster Medicine:

- Psychological aspects of first aid in disaster, recognition and coping with stress.
- Chemical accidents and consequences for Varna region, causing health and environmental problems.
- The role of pharmacists in mass casualty incidents and disasters.
- Anthropogenic air pollution and health consequences for the population.
- Environmental risks of marine water pollution.
- Management and organization of population protection during disasters.
- Nutrition as a health factor for the population.
- Terrorism.
- Ionizing radiation and possible disasters.
- Epidemics as a disaster, etc.

She speaks English and Russian, and uses Spanish, German and French.

### **Educational Activities**

Dr. M. Panteleeva takes an active part in the teaching of the mandatory disciplines in the Department of "Disaster Medicine and Maritime Medicine":

- „Disaster Medicine“ for students majoring in Medicine – Bulgarian Language Program;
- „Disaster Medicine“ for students majoring in Medicine – English Language Program;
- „Medical provision in disaster situations" for the specialty Midwife;
- „Medicine of Catastrophes" for the Health care management bachelor's degree;
- „First aid " for the Kinesitherapist specialty;
- „Disaster Medicine“ to students from the Medical College - specialty Cosmetologist and X-ray laboratory technician;
- in post-graduate training courses "Terrorist Attack and Counter-Terrorism Preparedness", "Medical Provision in Disasters and High-Casualty Crises";
- „First aid at home and in the office“ elective course for students majoring in Medicine – Bulgarian and English Language Program, etc.

Dr. Panteleeva's academic load annually exceeds the norm for Medical University Varna. In 2016 and 2017, she was a lecturer at "Angel Kanchev" University of Ruse on "First aid" for students from the "Preschool and Primary School Pedagogy" and "Kinesitherapy" majors.

### **Scientific activity of the candidate**

The scientific works of Dr. Maria Panteleeva are presented for participation in a competition for acquiring an academic position "Associate Professor" in the area of higher education 7. Health and Sports, professional field 7.1. Medicine, for the needs of the Faculty of Public Health, department of "Disaster medicine and marine medicine" at Medical University "Prof. Dr. P. Stoyanov" Varna. A total of 31 scientific works are presented in the Academic Reference. Of these, 23 are included as evidentiary material for the fulfillment of the minimum requirements for occupying the academic position of Associate Professor, according to the Act for the Development of the Academic Staff in the Republic of Bulgaria from 2010, amended 2022.

There are 2 more publications presented, outside of the evidentiary material for fulfilling the minimum requirements for occupying academic position of Associate Professor.

The scientific works of Dr. Maria Panteleeva, used in this contest include:

- Dissertation thesis for the award of the educational and scientific degree "PhD" - 1 issue
- Habilitation work - monograph - 1 issue

- Disaster Medicine study guide (co-author – 1 issue)
- Scientific publications in journals – 29, among them:
  - o scientific publications, referenced and indexed in world-famous databases with scientific information: 5 issues;
  - o in non-refereed journals with scientific review: 24 issues (of which 4 are submitted for acquisition of the educational and scientific degree "PhD").

Of the publications submitted for participation in the competition, the candidate is the first author of 13 of them, and second or third of 16, which shows a high level of activity both in setting the scientific issues and in presenting the obtained scientific results and their final design.

A place as an author	Scientific publications	
	Number	%
Single/First	13	44.83%
Second author	8	27.58%
Third and next	8	27.58%
Total	29	

**The scientific works are mainly in the field of Disaster Medicine:**

- Presentation of the main terms used in disaster medicine and other related disciplines. Classifications. Basic characteristics of disaster situations and recommended actions for survival.
- Survey studies on assessing the awareness and preparation of students, master pharmacists and the population for disaster situations.
- Management and organization of the protection of the population in disaster situations.
- Chemical accidents and consequences for Varna region, health and psychological aspects. Environmental problems.
- The role of pharmacists in disaster situations.
- Nutrition and human health.
- Experiments with experimental animals, epidemiological and other studies.

The candidate's scientific developments are mainly focused on six areas of medicine and disaster medicine.

**The first direction includes - Presentation of the main terms used in disaster medicine and related disciplines. Classifications of disasters. Basic characteristics of disaster situations and recommended actions for survival. Surveys etc.**

The most significant scientific work of Dr. Panteleeva is Characteristics of some major disasters and recommendations for correct behavior (habilitation work).

The monograph examines basic concepts related to Disaster Medicine, as well as popular classifications of disaster situations proposed by various scientists and organizations.

Against the background of frequent disasters worldwide, the monograph examines the most common of them, their origin and offers suggestions for proper behavior of the population in order to reduce the risk of injuries.

Special attention is paid to meteorological disasters, which are the most common - storms, cyclones, anticyclones, hurricanes, whirlwinds, etc.; topological disasters, including floods, landslides, avalanches; tectonic catastrophes – earthquakes and volcanic eruptions. Recommended steps to avoid injury during disasters are outlined.

A general geographical profile of the Varna region with territorial distribution of the population, built-up area, relief, water bodies, climate, precipitation, industry, road infrastructure, railway lines

and stations, airport, ports is presented. Disasters characteristic of the region are discussed. Attention is paid to the strategic sites in the area in relation to possible disaster situations of a natural and anthropogenic nature.

Introduction to the basic terms used in disaster medicine and related disciplines. Classifications of disasters. Basic characteristics of disaster situations and recommended actions for survival. Survey researched.

Special attention was given by Dr. Pateleeva to her participation in the preparation and implementation of the Bilingual Terminological Dictionary (in English and Bulgarian) - Study Guide for Disaster Medicine.

The released dictionary is semantic. Contains over 1,200 terms, their definitions, and the most common and commonly used abbreviations.

The terminology under consideration can serve in the work of researchers, teachers, specialists from Fire Safety and Protection of the Population Department, the Red cross, medical specialists, doctoral students and students from higher medical universities and medical colleges.

Dr. Panteleeva has many different surveys, but the most relevant one is "Study of the level of awareness of disaster situations of students majoring in Medicine at MU-Varna".

A survey was conducted among 2nd year students majoring in "Medicine" at MU-Varna. 118 Bulgarian-speaking people and 108 English-speaking people were surveyed about their knowledge of disaster situations, what preliminary information they have about dealing with them and from what sources, as well as their wishes to further expand their knowledge. The method of direct individual survey with a survey card including 26 questions was used. Of these, 20 are closed and 6 are open.

The findings show that according to most participants from both groups in the survey, they had only partial and incomplete knowledge about dealing with disasters before the Disaster Medicine training at MU-Varna. After summarizing their answers, it was concluded that the surveyed students, for the most part, consider that they have received sufficient training to deal with a real situation.

Both groups of respondents believe that in practice they will do best with providing CPR in trauma. They indicate that this section of the material is most interesting to them and that they would like additional study hours primarily on these topics.

For the most part, the respondents are correctly oriented regarding the possible natural disasters characteristic of the Varna region, and the difference in the answers to the specific questions related to acute mass intoxications of the BEO and AEO students is due to the fact that the former were surveyed immediately after leaving from the Disaster Medicine exam, and the AEO students - two months later. After discussing the responses of the respondents, their Disaster Medicine preparation for BEO students was assessed as excellent and for AEO students as very good.

**From the second direction "Management and organization of the protection of the population in disaster situations"** I appreciate the article "Medical Triage and Necessary Organization in Disaster Situations" with great practical contribution

The opinions of various specialists regarding the organization of medical provision in crisis situations were considered, including triage. Participants in the rescue of victims in the accident area must be prepared to provide first aid, as well as to organize and conduct triage.

Triage is a part and indivisible process of providing first aid in crisis situations.

The number of organized rescue groups that provide first aid and perform medical triage in the area of the incident, before the arrival of the teams of the Emergency Medical Assistance Center in Bulgaria, is currently insufficient.

Another interesting publication from this direction is:

- Global risks and enhancement of disaster response preparedness, etc.

**In the third direction "Chemical accidents and consequences for the Varna region, health and psychological aspects. Environmental problems"** Dr. Panteleeva works on interesting and current topics:

- Anthropogenic disasters on Bulgarian territory: chemical accidents on land and sea.
- Possible accidents and consequences for Varna.
- Current aspects for victims with mental problems after disasters.
- Psychological aspects of the first aid after chemical accidents.
- Anthropogenic air pollution and health consequences for the population.
- Air pollution in Europe – current trends.

In the direction "Role of the pharmacists in disasters" are presented the following topics:

- Possible environmental risks in the Varna region and the role of pharmacists in industrial accidents and chemical terrorism (Dissertation).

One of the most important issues in dealing with disasters is the medical provision of the population and the shortage of personnel. At the same time, pharmacists are undervalued as a hidden reserve of the system.

Dr. Panteleeva proposes to regulate the role of pharmacists in disasters, accidents and incidents, to include Disaster Medicine discipline in the training of master pharmacists and to provide first aid courses for them. An Algorithm for correct actions of pharmacists in the event of a mass incident with poisonous chemical substances and Guidelines for medicinal products and consumables, etc., have been developed.

**The main contributions of Dr. Panteleeva's dissertation work are:**

1. The possible ecological risks of industrial accidents in the Varna region have been studied.
2. An analysis of environmental risks for the seawater in Varna Region was carried out.
3. The role of pharmacists for proper response, assistance and protection of the population in the incident area with chemical poisonous substances is defined.
4. An analysis of the available medicines and consumables, suitable for providing first aid in chemical incidents and chemical terrorism, in the pharmacy network in Bulgaria and in the pharmacy networks of neighboring countries was carried out.
5. Studies and recommendations have been developed to increase the importance and determine the role of pharmacists in industrial accidents and chemical terrorism - to the Ministry of Health, medical universities, the Bulgarian Pharmaceutical Union and the pharmacy network.
6. An interactive map of pharmacies in Varna region was prepared, as well as a systematization of Instructions for necessary medicines and consumables for emergency measures in the pharmacy for the victims of a mass accident with various chemical substances.
7. A Protocol for preliminary training of pharmacists for proper behavior and protection in a mass incident with chemical substances and leaflets with Algorithms for proper behavior and protection of pharmacists in a mass incident with chemical substances were prepared.

**Other publications in this direction are:**

- Medicines and consumables in the pharmacy network in Varna in case of chemical accidents and terrorist attacks with chlorine.
- Preparedness of pharmacists for self-defense in case of chemical accidents.

- Preparedness and readiness of pharmacists in the Varna region for medical support of the affected population in the event of a chemical accident with many victims or disasters .
- Challenges for pharmacists in the conditions of a biological outbreak.

**In the fifth direction "Food and human health"** there are some interesting publications presented:

- Nutrition as a factor with significant influence on bone health.
- Eating habits of pregnant women in Bulgaria.
- Role of vitamin K in human health.
- Nutrition, nutritional status and cancer in people with disabilities from Varna.

**And in the sixth direction "Experiments with experimental animals and epidemiological studies"** diverse and up-to-date publications are presented:

- Distribution of rubidium 86 and methionine 75 selenium in rat organs after exercise and treatment with protein hydrolyzate and vitamin C.
- Results of tests carried out for intestinal pathogens in the microbiological laboratory of RZI-Varna.
- Features of the coastal marine environment and bioterrorism - part 1: bioagents – microorganisms.
- Research measures to prevent the importation of malaria (organization of the fight against mosquitoes) in the Varna region.

**Dr. Panteleva has interest and potential for future scientific activities** in the Department, as well as joint works with colleagues from the Department of Hygiene and Epidemiology and other researchers from MU-Varna in the field of:

- Environmental problems.
- Epidemics as a disaster.
- History of medicine.
- Importance of nutrition in disasters and possible disasters related to nutrition and eating habits of the population, etc.

### **Participation in scientific forums**

Dr. Panteleva participated in all the anti-terrorism seminars organized by the Medical University - Varna and in most of the scientific conferences of the International Medical Association Bulgaria (IMAB), the SU in Bulgaria and the BNDOZ, in the annual editions of the "Sea and Health" Festival of the MU- Varna and other scientific international, republican and regional forums - a total of 76 participations with lectures, reports and posters.

### **Community service**

She participated with lectures at the European conference "Integration for an adequate and timely response of medical facilities in extreme situations", Sofia, 26 - 27.06.2014, in front of the medical personnel of CEMA (Center for Emergency Medical Assistance) - Varna, RZI Varna, the Regional Pharmaceutical College - Varna and other groups.

For the academic year 2023/2024, Dr. Panteleva is preparing a lecture and training course for teaching students from 1st to 7th grade to respond to crisis situations:

- Terrorism at school.
- Violence, assault.
- Threat to life in epidemics.
- Natural disasters, accidents, etc.

Dr. Panteleeva is a member of the following professional organizations

- Bulgarian Medical Association.
- Bulgarian Scientific Society of Public Health.
- Bulgarian Medical Homeopathic Organization.
- Bulgarian Nuclear Society. From April 2022, she was elected as the chairman of BgNS - Varna branch and a member of the Board of BgNS.

### **Personal impressions**

My professional contacts with Dr. Panteleeva give me reason to define her as a well-prepared, thorough and active teacher and researcher.

She is distinguished by great responsibility and exactingness towards herself, the students and her colleagues.

She is sought after as a consultant and co-author by colleagues in the scientific community.

### **Conclusion**

Based on the in-depth analysis and evaluation of the candidate's work for the announced competition, I propose to the respected Scientific Jury to award Dr. Maria Nikolaeva Panteleeva - Popova the academic position of "associate professor" in the specialty "Medicine of disaster situations" higher education area 7. Health care and sports, professional direction 7.1 Medicine, for the needs of the Faculty of Public Health, Department of Disaster Medicine and Maritime Medicine at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna.

23.10.2023  
Varna

Reviewer:   
(Prof. Hr. Romanova, MD, PhD, DSc.)