INTRODUCTION

In the face of dynamically developing digitalisation and technological transformation of the modern world, healthcare is facing a number of challenges that are redefining traditional models of medical care, data management and population healthcare. In particular, cyber innovations – including artificial intelligence, analysis of large data sets (big data), the Internet of Things (IoT), blockchain, and telemedicine technologies – are becoming the pillar of modern healthcare systems, transforming the methods of diagnosing, treating and monitoring health. At the same time, advancing digitalisation brings with it challenges related to the security and integrity of medical data, protection of patient privacy, and ensuring the resilience of systems to cyber threats. Therefore, the issue of cyber innovation is becoming crucial for health security at both the individual and societal level.

The Department of International Security of the Institute of International Relations of Maria Curie-Skłodowska University, the Department of International Political Relations of the Institute of International Relations of Maria Curie-Skłodowska University, the Department of Visual Communication and New Media of the Institute of Journalism and Management of the Catholic University of Lublin, the XVI Commission of Political Science and International Relations of the Branch of the Polish Academy of Sciences in Lublin and the Foundation for International Research have cooperated for the fourth time to organize the 4th National Scientific Conference on Health Security and Cyberinnovations in Healthcare.

The 4th National Conference is a series of annual meetings on the issue of broadly understood health security and the analysis of factors that have a direct impact on them. The main goal of the conference is to combine practice and theory during

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conference panels and workshops of key importance for broadly understood health security. The event is also an excellent opportunity to establish cooperation with entities directly responsible for the health care system, health policy, and to learn about solutions in the field of health care. It is also a platform for the exchange of information and experiences related to the challenges for health security in Poland, Europe and the world, serving to integrate the community of practitioners and specialists in the field of politics, medicine and communication. The initiative is a platform for the exchange of information and experiences related to the challenges for health security in Poland, Europe and the world, serving to integrate the community of practitioners and specialists in the field of politics, medicine and communication.

The aim of the 4th Conference was a broad discussion on the impact of cyber innovations on the health security of the state and citizens. The organizers proposed a discussion in the following thematic areas:

1. Healthcare Policy and Cyber Solutions: Building a Secure and Resilient Infrastructure;
2. Medicine, Health Security and Cyber Development: Challenges and Opportunities in the Digital Age;
3. Cyber Development in Medicine: Transforming Communication and Healthcare.

The selection of thematic scope resulted from the definition of the fundamental role of cyber innovations in modern medicine and the healthcare system. The issues raised were also intended to highlight the opportunities that cyber progress brings and to prepare for the challenges related to their implementation.

The cooperation in organizing this scientific event, the UMCS, KUL, the Polish Academy of Sciences and the Foundation for International Research presenting various fields and research tools allowed to show integrated and multidimensional actions to ensure health safety in the face of technological progress. It is also an example of a new mechanism of action of Lublin universities, undertaking cooperation with other entities in order to exchange experiences and information.

The article by Marek Pietraś, *Specificity of securitisation of health security risks*, includes the assumption made by the Author that health security is a dimension of security, a result of securitization of its threats. He classifies it as a second-generation dimension of security, conditioned more by the processes of globalization and global mobility. The Author also concludes that health security is a result of securitization of threats made by political entities formulating a speech act and at the same time playing the role of public opinion, accepting the speech act.

In the article by Małgorzata Gruchoła, *Ethical challenges related to the use of medical artificial intelligence in the healthcare system*, the author indicates the criteria for the ethicality of AI in medicine and healthcare, and also presents the risks associated with the use of medical artificial intelligence and solutions that can eliminate them.

Katarzyna Marzęda-Młynarska in the article *Challenges and prospects for international food systems in the light of the Covid-19 pandemic experience* shows the impact of the COVID-19 pandemic on international food systems. The author also analyses the challenges and prospects for international food systems in the context of the experience of the COVID-19 pandemic, including the impact on food security, resilience to unpredictable phenomena and technological innovation.

Study, conducted by Justyna Szulich-Kałuża, Małgorzata Sławek-Czochra in their text entitled *COVID passports in Poland and Europe – symptom ofpost-pandemic normalisation or behavioural intervention? A study based on empirical research and discourse analysis* was created on the basis of empirical research and discourse analysis, examines whether Covid passports were perceived by citizens of Poland and other European Union countries as an effective tool leading to post-pandemic normalization or as a behavioral intervention aimed at changing citizens' behaviour.

Tomasz Bichta in the article *Angola's health security system* presents the health care system in Angola. Both in legal and institutional terms. The author presents the actual state of affairs in the field of health security of citizens, drawing attention to numerous problems, but also attempts to overcome them.

Justyna Kięczkowska and Liliana Węgrzyn-Odzioba in the article *Online consultation – opportunity or threat to health security?* analyze the challenges and threats related to this type of services and present best practices and recommendations aimed at minimizing the risk. In the second text Security of medical data

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in Poland after the Covid-19 pandemic, the authors analyse the course of the digitization process in the area of medical data security understood as "health data" and "personal data" of patients.

Justyna Kięczkowska and Liliana Węgrzyn-Odzioba in the article *Security of medical data in Poland after the Covid-19 pandemic* describes the evolution of the medical data security strategy in Poland after the COVID-19 pandemic, to identify the main challenges and to discuss innovative approaches and technologies for the protection of patient data. The analysis will cover both changes in legal regulations and practical solutions used by medical facilities to ensure data security.

Stanisław Bichta in the article *E-public relations in healthcare and associated risks* describes conducting public relations activities in the healthcare system. He presents threats and opportunities for healthcare system entities related to their presence on the Internet.

Paulina Szaniawska in her article *Ethics and security related to AI in medicine* discusses issues related to transparency, inequalities in access to AI, and the impact of these technologies on the doctor-patient relationship. She devotes particular attention to legal regulations that should keep up with the rapid pace of AI implementation in medicine.

Aleksandra Kramek in her article *AI in Modern Medicine* analyses the most important applications of AI in various fields of medicine, such as support in mental health treatment, telemedicine and care for chronically ill patients. She also addresses ethical issues and challenges related to the implementation of AI in medicine, including patient data protection and transparency of system operation.

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